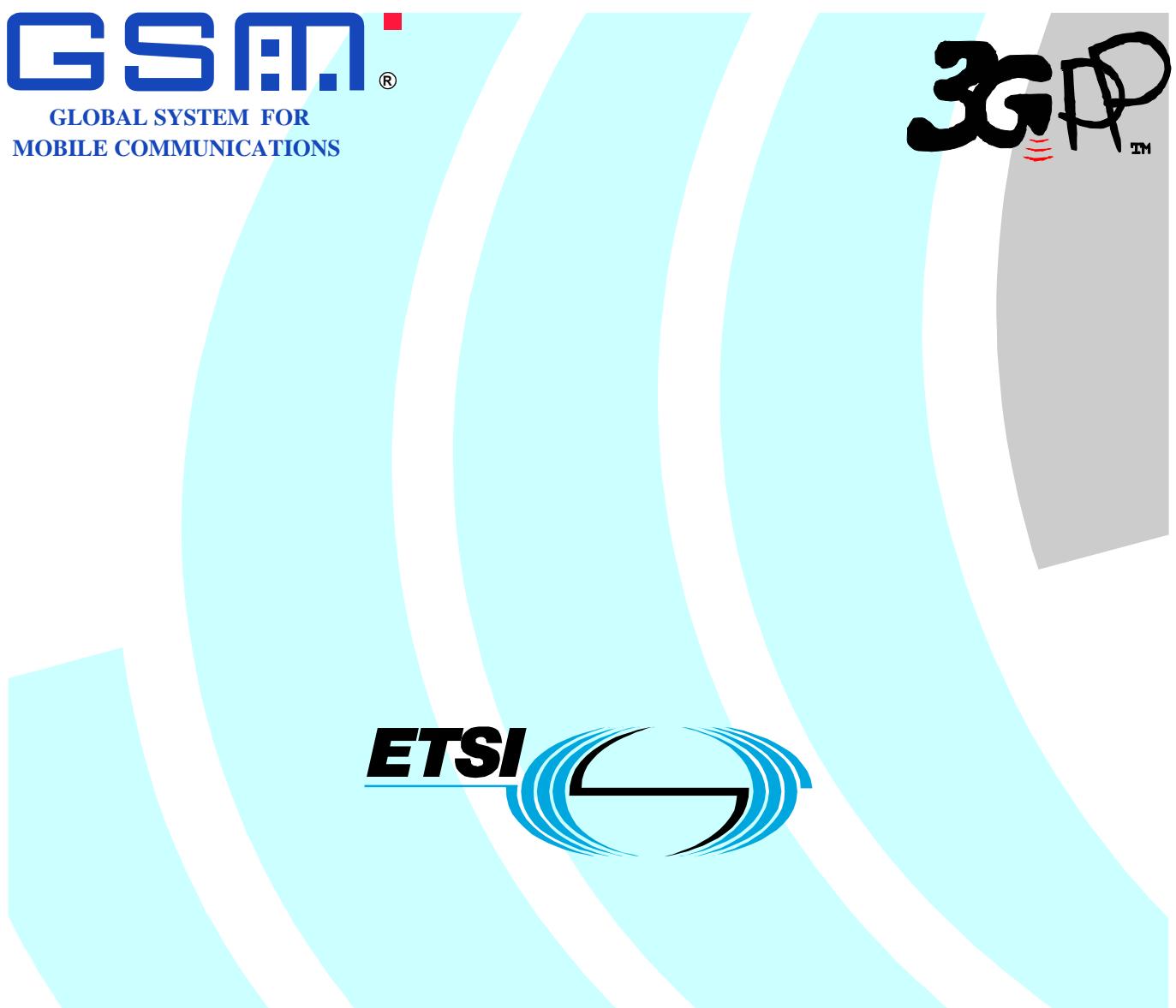# ETSI TS 100 607-4 V8.8.0 (2004-06)

**Digital cellular telecommunications system (Phase 2+);
Mobile Station (MS) conformance specification;
Part 4: Subscriber Interface Module (SIM)
application toolkit conformance specification
(3GPP TS 11.10-4 version 8.8.0 Release 1999)**

GSM

**GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS**

3GPP

ETSI

Reference
RTS/TSGT-031110-4v880

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Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp .

Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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x   the first digit:

1   presented to TSG for information;

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1 Scope

The present document describes the technical characteristics and methods of test for testing the SIM Application Toolkit implemented in Mobile Stations (MS) for the Pan European digital cellular communications system and Personal Communication Systems (PCS) operating in the 450 MHz, 480 MHz, 700 MHz, 750 MHz, 850 MHz, 900 MHz, 1 800 MHz and 1 900 MHz frequency band (GSM 400, GSM 700, GSM 750, GSM 850, GSM 900, DCS 1 800 and PCS 1 900) within the European digital cellular telecommunications system, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [19] and ETS 300 406 [20].

The present document is valid for MS implemented according to GSM Phase2+ R96, or R97, or R98, or R99.

The present document covers the minimum characteristics considered necessary in order to provide sufficient performance for mobile equipment and to prevent interference to other services or to other users, and to the PLMNs.

It does not necessarily include all the characteristics which may be required by a user or subscriber, nor does it necessarily represent the optimum performance achievable.

The present document is part of the GSM-series of technical specifications. The present document neither replaces any of the other GSM technical specifications or GSM related ETSs or ENs, nor is it created to provide full understanding of (or parts of) the GSM 400, GSM 700, GSM 850, GSM 900, DCS1800 and PCS1900 systems . The present document lists the requirements, and provides the methods of test for testing the SIM Application Toolkit implemented in a MS for conformance to the GSM standard.

For a full description of the system, reference should be made to all the GSM technical specifications or GSM related ETSs or ENs. Clause 2 provides a complete list of the GSM technical specifications, GSM related ETSs, ENs, and ETRs, on which this conformance test specifications is based.

If there is a difference between this present conformance document, and any other GSM technical specification or GSM related ETS or EN, or 3GPP TS, then the other GSM technical specification or GSM related ETS or EN or 3GPP TS shall prevail.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the relevant Release*.

  - For a GSM Phase 2+ Release 1999 MS, references to GSM documents are to version 8.x.y (for 01.-series to 12.-series) or (3.x.y for 21.-series to 35.-series), when available.

  - For a GSM Phase 2+ Release 1998 MS, references to GSM documents are to version 7.x.y, when available.

  - For a GSM Phase 2+ Release 1997 MS, references to GSM documents are to version 6.x.y, when available.

  - For a GSM Phase 2+ Release 1996 MS, references to GSM documents are to version 5.x.y,. when available.

NOTE: References to 3GPP Technical Specifications and Technical Reports throughout the present document shall be interpreted according to the Release shown in the formal reference in this clause, based upon the Release of the implementation under test.

EXAMPLE: References for a R99 MS shall be interpreted as:

[1] 3GPP TS 21.905 R99

[2] 3GPP TS 22.001 R99

etc.

[1] 3GPP TS 01.04 (R96 to R98): "Abbreviations and acronyms".
3GPP TR 21.905 (R99 onwards): "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 02.01 (R96 to R98): "Principles of telecommunication services supported by a GSM Public Land Mobile Network (PLMN)".
3GPP TS 22.001 (R99 onwards): "Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".

[3] 3GPP TS 02.03 (R96 to R98): "Teleservices supported by a GSM Public Land Mobile Network (PLMN)".
3GPP TS 22.003 (R99 onwards): "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".

[4] 3GPP TS 02.04 (R96 to R98): "General on supplementary services".
3GPP TS 22.004 (R99 onwards): "General on supplementary services".

[5] 3GPP TS 02.06 (R96 to R98): "Types of Mobile Stations (MS)".

[6] 3GPP TS 02.07 (R96 to R98): "Mobile Station (MS) features".

[7] 3GPP TS 03.38 (R96 to R98): "Alphabets and language-specific information".
3GPP TS 23.038 (R99 onwards): "Alphabets and language-specific information".

[8] 3GPP TS 03.40 (R96 to R98): "Technical realization of the Short Message Service (SMS); Point-to-Point (PP)".
3GPP TS 23.040 (R99 onwards): "Technical realization of the Short Message Service (SMS)".

[9] 3GPP TS 03.41 (R96 to R98): "Technical realization of Cell Broadcast Service (CBS)".
3GPP TS 23.041 (R99 onwards): "Technical realization of Cell Broadcast Service (CBS)".

[10] 3GPP TS 04.08 (R96 to R99): "Mobile radio interface; Layer 3 specification" (see note 1).
3GPP TS 24.008 (R99 onwards): "Mobile radio interface layer 3 specification; Core network protocols; Stage 3" (see note 1).

[11] 3GPP TS 04.11 (R96 to R98): "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
3GPP TS 24.011 (R99 onwards): "Point-to-Point (PP) Short Message Service (SMS) Support on mobile radio interface".

[12] 3GPP TS 51.010-1 (Rel-5): "Mobile Station (MS) conformance specification; Part 1: Conformance specification".

[13] 3GPP TS 11.11 (R96 to R99): "Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface".

[14] 3GPP TS 11.12 (R96): "Specification of the 3 Volt Subscriber Identity Module - Mobile Equipment (SIM-ME) interface".

[15] 3GPP TS 11.14 (R96 to R99): "Specification of the SIM application toolkit for the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[16] Void.

[17a] ISO/IEC 10646-1: "Information technology - Universal Multiple Octet Coded Character Set (UCS) - Part 1: Architecture and Basic Multilingual Plane".

[17b] ISO/IEC 10646-2: "Information technology - Universal Multiple Octet Coded Character Set (UCS) - Part 2: Supplementary Planes".

[18]   3GPP TS 27.007 (R99 onwards): "AT command set for 3G User Equipment (UE)".

[19]   ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[20]   ETSI ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

3   Definitions and abbreviations

3.1   Mobile station definition and configurations

The mobile station definition and configurations specified in 3GPP TS 51.010-1 [12] clause 3.1 shall apply, unless otherwise specified in the present clause.

3.2   Applicability

3.2.1   Applicability of the present document

The present specification applies to a terminal equipment that supports the SIM Application Toolkit optional feature.

3.2.2   Applicability of the individual tests

Table B.1 lists the optional features for which the supplier of the implementation states the support.

3.2.3   Applicability to terminal equipment

The applicability to terminal equipment specified in 3GPP TS 51.010-1 [12] clause 3.2.3 shall apply, unless otherwise specified in the present clause.

See table A.1.

3.2.4   Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 51.010-1 [12], clause 3.3, apply.

3.2.4.1   Format of the table of optional features

Option

The optional feature supported or not by the implementation.

Support Answer notation

The support columns shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [19], are used for the support column in the tables below.

Y or y   supported by the implementation

N or n   not supported by the implementation

N/A, n/a or -   no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status)

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

3.2.4.2   Format of the applicability table

The applicability of every test in table B.1 is formally expressed by the use of Boolean expression defined in the following clause.

The columns in table B.1 have the following meaning:

- In the "Item" column a local entry number for the requirement in the table is given.

- In the "Description" column a short non-exhaustive description of the requirement is found.

- The "Release" column gives the Release applicable and onwards, for the item in the "Description" column

- The "Test Sequence(s)" column gives a reference to the test sequence number(s) detailed in the present document and required to validate the implementation of the corresponding item in the "Description" column.

- For a given Release, the corresponding "Rel 9x ME" column lists the tests required for a Mobile Station to be declared compliant to this Release.

- The "Support" column is blank in the proforma, and shall be completed by the manufacturer in respect of each particular requirement to indicate the choices, which have been made in the implementation.

- The "Terminal Profile" column gives a reference to the corresponding bit that needs to be present in the Terminal Profile.

3.2.4.3   Status and notations

The "Release 9x ME" columns shows the status of the entries as follows:

The following notations, defined in ISO/IEC 9646-7 [19], are used for the status column:

M   mandatory - the capability is required to be supported.

O   optional - the capability may be supported or not.

N/A   not applicable - in the given context, it is impossible to use the capability.

X   prohibited (excluded) - there is a requirement not to use this capability in the given context.

O.i   qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.

Ci   conditional - the requirement on the capability ("M", "O", "X" or "N/A") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities.

References to items

For each possible item answer (answer in the support column) there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

EXAMPLE: A.1/4 is the reference to the answer of item 4 in table A.1.

3.3 Table of optional features

Support of SIM Application Toolkit is optional for Mobile Equipment. However, if an ME states conformance with a specific GSM release, it is mandatory for the ME to support all functions of that release, as stated in table A.1.

The support of letter classes, which specify mainly ME hardware dependent features, is optional for the ME and may supplement the SIM Application Toolkit functionality described in the present document. If an ME states conformance to a letter class, it is mandatory to support all functions within the respective letter class.

The supplier of the implementation shall state the support of possible options in table A.1.

Table A.1: Options

Item	Option	Status	Support	Mnemonic
1	Capability Configuration parameter	O		O_Cap_Conf
2	Sustained text	O		O_sust_text
3	UCS2 coding scheme for Entry	O		O_Ucs2_Entry
4	Extended Text String	O		O_Ext_Str
5	Help information	O		O_Help
6	Icons	O		O_Icons
7	Class A: Dual Slot	O		O_Dual_Slot
8	Detachable reader	O		O_Detach_Rdr
9	Class B: RUN AT	O		O_Run_At
10	Class C: LAUNCH BROWSER	O		O_LB
11	Class D: Soft keys	O		O_Soft_key
12	Class E: B.I.P related to CSD	O		O_BIP_CSD
13	Screen sizing parameters	O		O_Scr_Siz
14	Screen Resizing	O		O_Scr_Resiz
15	UCS2 coding scheme for Display	O		O_Ucs2_Disp
16	Mobile supporting GPRS	O		O_GPRS
17	Mobile supporting UDP	O		O_UDP
18	Mobile supporting TCP	O		O_TCP
19	Redial in Set Up Call	O		O_Redial
20	Mobile decision to respond with "No response from user" in finite time	O		O_D_NoResp
21	Class E: B.I.P related to GPRS	O		O_BIP_GPRS
22	Mobile supporting Called Party Subaddress	O		O_CP_Subaddr

3.4 Applicability table

Table B.1: Applicability of tests

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
1	**PROFILE DOWNLOAD** 27.22.1	**R96**	1	**M**	**M**	**M**	**M**	E.1/1	
2	**Contents of the TERMINAL PROFILE command 27.22.2**	R96		M	M	M	M	E.1/1	
3	**Servicing of Proactive SIM Commands 27.22.3**	R96		M	M	M	M		
4	**DISPLAY TEXT** 27.22.4.1								
	Unpacked	R96	1.1	M	M	M	M	E.1/17	
	Screen busy	R96	1.2	M	M	M	M	E.1/17	
	high priority	R96	1.3	M	M	M	M	E.1/17	
	Packed	R96	1.4	M	M	M	M	E.1/17	
	clear after delay	R96	1.5	M	M	M	M	E.1/17	
	clear after user confirmation	R96	1.1	M	M	M	M	E.1/17	
	long text up to 160 bytes	R96	1.6	M	M	M	M	E.1/17	
	Backwards move in SIM session	R96	1.7	M	M	M	M	E.1/17	
	Session terminated by user	R96	1.8	M	M	M	M	E.1/17	
	Command not understood by ME	R96	1.9	M	M	M	M	E.1/17	
	no response from user	R96	2.1	M	M	M	M	E.1/17	
	Extension Text	R98	3.1			C106	C106	E.1/17 AND E.1/16	
	sustained text	R98	4.1, 4.2, 4.3, 4.4			C104	C104	E.1/17 AND E.1/65	
	Icons	R98	5.1, 5.2, 5.3			C108	C108	E.1/17	
	UCS2 display	R97	6.1		C118	C118	C118	E.1/17 AND E.1/15	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
5	**GET INKEY** 27.22.4.2								
	prompt unpacked	R96	1.1	M	M	M	M	E.1/18	
	prompt packed	R96	1.2	M	M	M	M	E.1/18	
	digits only	R96	1.1	M	M	M	M	E.1/18	
	Backwards move in SIM session	R96	1.3	M	M	M	M	E.1/18	
	Session terminated by user	R96	1.4	M	M	M	M	E.1/18	
	SMS alphabet	R96	1.5	M	M	M	M	E.1/18	
	Long text up to 160 bytes	R96	1.6	M	M	M	M	E.1/18	
	no response from user	R96	2.1	M	M	M	M	E.1/18	
	UCS2 display	R97	3.1		C118	C118	C118	E.1/18 AND E.1/15	
	UCS2 display, Long text up to 70 chars	R97	3.2		C118	C118	C118	E.1/18 AND E.1/15	
	UCS2 format of entry	R97	4.1		C105	C105	C105	E.1/18 AND E.1/14	
	"Yes/No" response	R98	5.1			M	M	E.1/18 AND E.1/60	
	Icons	R98	6.1, 6.2, 6.3, 6.4			C108	C108	E.1/18	
	Help information	R97	7.1		C107	C107	C107	E.1/18	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
6	**GET INPUT** 27.22.4.3								
	input unpacked	R96	1.1	M	M	M	M	E.1/19	
	input packed	R96	1.2	M	M	M	M	E.1/19	
	digits only	R96	1.1	M	M	M	M	E.1/19	
	SMS alphabet	R96	1.3	M	M	M	M	E.1/19	
	hidden input	R96	1.4	M	M	M	M	E.1/19	
	min / max acceptable length	R96	1.5, 1.9	M	M	M	M	E.1/19	
	Backwards move in SIM session	R96	1.6	M	M	M	M	E.1/19	
	Session terminated by user	R96	1.7	M	M	M	M	E.1/19	
	Prompt text up to 160 bytes	R96	1.8	M	M	M	M	E.1/19	
	SMS default alphabet, ME to echo text, packing not required	R96	1.9	M	M	M	M	E.1/19	
	Null length for the text string	R96	1.10	M	M	M	M	E.1/19	
	no response from user	R96	2.1	M	M	M	M	E.1/19	
	UCS2 display	R97	3.1, 3.2		C118	C118	C118	E.1/19 AND E.1/15	
	UCS2 entry	R97	4.1, 4.2		C105	C105	C105	E.1/19 AND E.1/14	
	default text for the input	R97	5.1, 5.2		M	M	M	E.1/19	
	icons	R98	6.1, 6.2, 6.3, 6.4			C108	C108	E.1/19	
	help information	R97	7.1		C107	C107	C107	E.1/19	
7	**MORE TIME** 27.22.4.4	**R96**	1.1	M	M	M	M	E.1/20	
8	**PLAY TONE** 27.22.4.5								
	play all tones	R96	1.1	M	M	M	M	E.1/21	
	display alpha	R96	1.1	M	M	M	M	E.1/21	
	user termination	R96	1.1	M	M	M	M	E.1/21	
	superimpose	R96	1.1	M	M	M	M	E.1/21	
	UCS2 display	R97	TBD					E.1/21 AND E.1/15	
	icons	R98	TBD					E.1/21	
9	**POLL INTERVAL** 27.22.4.6								
	duration	R96	1.1	M	M	M	M	E.1/22	
10	**REFRESH** 27.22.4.7								
	SIM initialization, enabling FDN mode	R96	1.1	M	M	M	M	E.1/24	
	file change notification of FDN file	R96	1.2	M	M	M	M	E.1/24	
	SIM initialization and file change notification of PLMN	R96	1.3	ME	M	ME	M	E.1/24	
	SIM initialization and full file change notification, enabling FDN mode	R96	1.4	M	M	M	M	E.1/24	
	SIM reset	R96	1.5	M	M	M	M	E.1/24	
	SIM Initialization after SMS-PP data download	R96	1.6	M	M	M	M	E.1/24	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	IMSI Changing procedure	R98	2.1			M	M	E.1/24	
11	**SET UP MENU** 27.22.4.8								
	Set up, menu selection, replace and remove menu	R96	1.1	M	M	M	M	E.1/30 AND E.1/4	
	Large menu	R96	1.2	M	M	M	M	E.1/30 AND E.1/4	
	help information	R97	2.1		C107	C107	C107	E.1/30 AND E.1/4	
	next action indicator	R97	3.1		M	M	M	E.1/30	
	icons	R98	4.1, 4.2			C108	C108	E.1/30	
	soft key access	R99	5.1				C112	E.1/30 AND E.1/74	
12	**SELECT ITEM** 27.22.4.9								
	Mandatory features	R96	1.1	M	M	M	M	E.1/25	
	Large menu	R96	1.2, 1.3, 1.5,1.6	M	M	M	M	E.1/25	
	Backwards move	R96	1.4	M	M	M	M	E.1/25	
	user termination	R96	1.5	M	M	M	M	E.1/25	
	no response from user	R96	8.1	C120	C120	C120	C120	E.1/25	
	next action indicator	R97	2.1		M	M	M	E.1/25	
	default selected item	R97	3.1		M	M	M	E.1/25	
	help information	R97	4.1		C107	C107	C107		
	icons	R98	5.1, 5.2			C108	C108	E.1/25	
	Presentation style	R98	6.1, 6.2			M	M	E.1/25	
	Soft keys	R99	7.1				C112	E.1/25 AND E.1/73	
13	**SEND SMS** 27.22.4.10								
	Packing not required	R96	1.1, 1.3 1.5	M	M	M	M	E.1/26	
	Packing required	R96	1.2, 1.4	M	M	M	M	E.1/26	
	8 bit data	R96	1.1, 1.2	M	M	M	M	E.1/26	
	SMS default alphabet	R96	1.3, 1.4, 1.5	M	M	M	M	E.1/26	
	160 bytes length	R96	1.4, 1.5	M	M	M	M	E.1/26	
	Alpha identifier	R96	1.6, 1.7, 1.8	M	M	M	M	E.1/26	
	UCS2 SMS	R97	2.1		C118	C118	C118	E.1/26 AND E.1/15	
	icons	R98	3.1, 3.2			C108	C108	E.1/26	
14	**SEND SS** 27.22.4.11								

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	call forward unconditional, all bearers, successful	R96	1.1	M	M	M	M	E.1/27	
	call forward unconditional, all bearers, Return Error	R96	1.2	M	M	M	M	E.1/27	
	call forward unconditional, all bearers, Reject	R96	1.3	M	M	M	M	E.1/27	
	call forward unconditional, all bearers, successful, SS request size limit	R96	1.4	M	M	M	M	E.1/27	
	interrogate CLIR status, successful, alpha identifier limits	R96	1.5	M	M	M	M	E.1/27	
	call forward unconditional, all bearers, successful, null data alpha identifier	R96	1.6	M	M	M	M	E.1/27	
	call forward unconditional, all bearers, successful, icon support	R98	2.1, 2.2, 2.3, 2.4			C108	C108	E.1/27	
	UCS2 display	R97	3.1		C118	C118	C118	E.1/27 AND E.1/15	
15	**SEND USSD** 27.22.4.12								
	7-bit data, successful	R96	1.1	M	M	M	M	E.1/28	
	8-bit data, successful	R96	1.2	M	M	M	M	E.1/28	
	UCS2 data, successful	R96	1.3	M	M	M	M	E.1/28	
	7-bit data, unsuccessful	R96	1.4	M	M	M	M	E.1/28	
	7-bit data, unsuccessful	R96	1.5	M	M	M	M	E.1/28	
	256 octets, 7-bit data, successful, long alpha identifier	R96	1.6	M	M	M	M	E.1/28	
	7-bit data, successful, no alpha identifier	R96	1.7	M	M	M	M	E.1/28	
	7-bit data, successful, null length alpha identifier	R96	1.8	M	M	M	M	E.1/28	
	icons	R98	2.1, 2.2, 2.3, 2.4			C108	C108	E.1/28	
	UCS2	R97	3.1		C118	C118	C118	E.1/28 AND E.1/15	
16	**SET UP CALL** 27.22.4.13								
	Call confirmed by the user and connected	R96	1.1	M	M	M	M	E.1/29	
	call rejected by the user	R96	1.2	M	M	M	M	E.1/29	
	redial	R96	1.3	C119	C119	C119	C119	E.1/29	
	putting all other calls on hold, ME busy	R96	1.4	M	M	M	M	E.1/29	
	disconnecting all other calls, ME busy	R96	1.5	M	M	M	M	E.1/29	
	only if not currently busy on another call, ME busy	R96	1.6	M	M	M	M	E.1/29	
	putting all other calls on hold, call hold is not allowed	R96	1.7	M	M	M	M	E.1/29	
	Capability configuration	R96	1.8	C101	C101	C101	C101	E.1/29	
	long dialling number string	R96	1.9	M	M	M	M	E.1/29	
	long first alpha identifier	R96	1.10	M	M	M	M	E.1/29	
	Called party subaddress	R96	1.11	C124	C124	C124	C124	E.1/29	
	maximum duration for the redial mechanism	R96	1.12	C119	C119	C119	C119	E.1/29	
	second alpha identifier	R98	2.1			M	M	E.1/29 AND E.1/63	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	UCS2 Display	R97	TBD					E.1/29 AND E.1/15	
	icons	R98	3.1,3.2, 3.3, 3.4			C108	C108	E.1/29	
17	**POLLING OFF** 27.22.4.14	**R96**	1.1	M	M	M	M	E.1/23	
18	**PROVIDE LOCAL INFO** 27.22.4.15								
	location information	R96	1.1	M	M	M	M	E.1/31	
	IMEI	R96	1.2	M	M	M	M	E.1/31	
	network measurement results and BCCH channel list	R98	1.3			M	M	E.1/32 AND E.1/67	
	Date, time and time zone	R98	1.4			M	M	E.1/59	
	language setting	R99	1.5				M	E.1/68	
	Timing advance	R99	1.6				M	E.1/69	
19	**SET UP EVENT LIST** 27.22.4.16								
	Set up call connected event	R97	1.1		M	M	M	E.1/33 AND E.1/35	
	Replace by new event list	R97	1.2		M	M	M	E.1/33 AND E.1/35 AND E.1/36	
	Remove event	R97	1.3		M	M	M	E.1/33 AND E.1/35	
	Remove Event on ME Power Cycle	R97	1.4		M	M	M	E.1/33 AND E.1/35	
20	**PERFORM CARD APDU** 27.22.4.17								
	Additional card inserted, Select MF and Get Response	R98	1.1			C109	C109	E.1/51	
	Additional card inserted, Select DF GSM, Select EF PLMN , Update Binary, Read Binary on EF PLMN	R98	1.2			C109	C109	E.1/51	
	Additional card inserted, card powered off	R98	1.3			C109	C109	E.1/51	
	No card inserted, card powered off	R98	1.4			C109	C109	E.1/51	
	Invalid card reader identifier	R98	1.5			C109	C109	E.1/51	
	Detachable reader	R98	2.1			C116	C116	E.1/51	
21	**POWER OFF CARD** 27.22.4.18								
	Additional card inserted	R98	1.1			C109	C109	E.1/50	
	No card inserted	R98	1.2			C109	C109	E.1/50	
	Detachable reader	R98	2.1			C116	C116	E.1/50	
22	**POWER ON CARD** 27.22.4.19								

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	Additional card inserted	R98	1.1			C109	C109	E.1/49	
	No ATR	R98	1.2			C109	C109	E.1/49	
	No card inserted	R98	1.3			C109	C109	E.1/49	
	Detachable reader	R98	2.1			C116	C116	E.1/49	
23	**GET READER STATUS** 27.22.4.20								
	Additional card inserted, card powered	R98	1.1			C109	C109	E.1/52	
	Additional card inserted, card not powered	R98	1.2			C109	C109	E.1/52	
	Additional card inserted, card not present	R98	1.3			C109	C109	E.1/52	
	Detachable reader	R98	2.1			C116	C116	E.1/52	
24	**TIMER MANAGEMENT** 27.22.4.21.1								
	Start timer 1 several times, get the current value of the timer and deactivate the timer successfully	R98	1.1			M	M	E.1/57 AND E.1/58	
	Start timer 2 several times, get the current value of the timer and deactivate the timer successfully	R98	1.2			M	M	E.1/57 AND E.1/58	
	Start timer 8 several times, get the current value of the timer and deactivate the timer successfully	R98	1.3			M	M	E.1/57 AND E.1/58	
	Try to get the current value of a timer which is not started: action in contradiction with the current timer state	R98	1.4			M	M	E.1/57 AND E.1/58	
	Try to deactivate a timer which is not started: action in contradiction with the current timer state	R98	1.5			M	M	E.1/57 AND E.1/58	
	Start 8 timers successfully	R98	1.6			M	M	E.1/57 AND E.1/58	
25	**ENVELOPE TIMER EXPIRATION** 27.22.4.21.2								
	Pending proactive SIM command	R98	2.1			M	M	E.1/6 AND E.1/57	
	SIM application toolkit busy	R98	2.2			M	M	E.1/6 AND E.1/57 AND E.1/20	
26	**SET UP IDLE MODE TEXT** 27.22.4.22								
	Display idle mode text	R98	1.1			M	M	E.1/61 AND E.1/33 AND E.1/39	
	Replace idle mode text	R98	1.2			M	M	E.1/61 AND	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
								E.1/33 AND E.1/39	
	Remove idle mode test	R98	1.3			M	M	E.1/61 AND E.1/33 AND E.1/39	
	Competing information on ME display	R98	1.4			M	M	E.1/61 AND E.1/33 AND E.1/39	
	ME powered cycled	R98	1.5			M	M	E.1/61 AND E.1/33 AND E.1/39	
	Refresh with SIM initialization	R98	1.6			M	M	E.1/61 AND E.124 AND E.1/33 AND E.1/39	
	Large text string	R98	1.7			M	M	E.1/61 AND E.1/33 AND E.1/39	
	Followed by a Display Text	R98	1.8			M	M	E.1/61 AND E.1/33 AND E.1/39 AND E.1/17	
	Followed by a Play Tone	R98	1.9			M	M	E.1/61 AND E.1/33 AND E.1/39 AND E.1/21	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	icons	R98	2.1, 2.2, 2.3, 2.4			C108	C108	E.1/61 AND E.1/39	
	UCS2 display	R98	3.1			C118	C118	E.1/61 AND E.1/15 AND E.1/39	
27	**RUN AT COMMAND** 27.22.4.23								
	No alpha Identifier	R98	1.1			C110	C110	E.1/62	
	null data alpha identifier presented	R98	1.2			C110	C110	E.1/62	
	alpha identifier presented	R98	1.3			C110	C110	E.1/62	
	icons	R98	2.1, 2.2, 2.3, 2.4, 2.5			C114	C114	E.1/62	
28	**SEND DTMF** 27.22.4.24								
	Normal	R98	1.1			M	M	E.1/66	
	alpha identifier	R98	1.2, 1.3			M	M	E.1/66	
	Mobile is not in a speech call	R98	1.4			M	M	E.1/66	
	Icons	R98	2.1, 2.2, 2.3			C108	C108	E.1/66	
	UCS2 display	R98	3.1			C118	C118	E.1/66 AND E.1/15	
29	**LANGUAGE NOTIFICATION** 27.22.4.25								
	Specific language notification	R99	1.1				M	E.1/70	
	Non specific language notification	R99	1.2				M	E.1/70	
30	**LAUNCH BROWSER** 27.22.4.26								
	No session already launched: Connect to the default URL	R99	1.1				C111	E.1/71	
	connect to the specified URL, alpha identifier length=0	R99	1.2				C111	E.1/71	
	Browser identity, no alpha identifier	R99	1.3				C111	E.1/71	
	one bearer specified and gateway/proxy identity	R99	1.4				C122	E.1/71	
	several bearers specified, gateway/proxy id specified	R99	1.5				C123	E.1/71	
	Interaction with current session	R99	2.1, 2.2, 2.3				C111	E.1/71	
	UCS2 display	R99	3.1				C117	E.1/71 AND E.1/15	
	icons	R99	4.1, 4.2				C115	E.1/71	

ETSI

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
31	**OPEN CHANNEL** 27.22.4.27								
	Immediate link establishment, CSD, 9600 bps	R99	1.1, 1.2, 1.3, 1.4, 1.5, 1.6				C113	E.1/89 AND E.1/97	
	immediate link establishment, CSD, 9600 bps, performed with modification	R99	1.7				C113	E.1/89 AND E.1/97	
	immediate link establishment, CSD, Network currently unable to process command	R99	1.8				C113	E.1/89 AND E.1/97	
	immediate link establishment, CSD, No channel available	R99	1.9				C113	E.1/89 AND E.1/97	
	CSD, ME busy on call	R99	1.10				C113	E.1/89 AND E.1/97 AND E.1/29	
	immediate link establishment, GPRS, no local address, no alpha identifier, no network access name	R99	2.1				C121	E.1/89 AND E.1/98	
	immediate link establishment GPRS, no alpha identifier, with network access name	R99	2.2				C121	E.1/89 AND E.1/98	
	immediate link establishment, GPRS, with alpha identifier	R99	2.3				C121	E.1/89 AND E.1/98	
	immediate link establishment, GPRS, with null alpha identifier	R99	2.4				C121	E.1/89 AND E.1/98	
	immediate link establishment, GPRS, command performed with modifications (buffer size)	R99	2.5				C121	E.1/89 AND E.1/98	
	Void	Void	2.6				Void	Void	
	immediate link establishment, GPRS, open command with alpha identifier, User did not accept the proactive command	R99	2.7				C121	E.1/89 AND E.1/98	
	GPRS, ME busy on call	R99	2.8				C121	E.1/89 AND E.1/98	
32	**CLOSE CHANNEL** 27.22.4.28								
	successful	R99	1.1				C113 AND C121	E.1/89 AND E.1/90	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	with an invalid channel identifier	R99	1.2				C113 AND C121	E.1/89 AND E.1/90	
	on an already closed channel	R99	1.3				C113 AND C121	E.1/90	
33	**RECEIVE DATA** 27.22.4.29								
	already opened channel	R99	1.1				C113 AND C121	E.1/89 AND E.1/91	
34	**SEND DATA** 27.22.4.30								
	immediate mode	R99	1.1				C113 AND C121	E.1/89 AND E.1/92	
	Store mode	R99	1.2				C113 AND C121	E.1/89 AND E.1/92	
	Store mode, Tx buffer fully used	R99	1.3				C113 AND C121	E.1/89 AND E.1/92	
	2 consecutive SEND DATA Store mode	R99	1.4				C113 AND C121	E.1/89 AND E.1/92	
	immediate mode with a bad channel identifier	R99	1.5				C113 AND C121	E.1/89 AND E.1/92	
	immediate mode, Proactive SIM session terminated by the user	R99	1.6				C113 AND C121	E.1/89 AND E.1/92	
35	**GET CHANNEL STATUS** 27.22.4.31								
	without any BIP channel opened	R99	1.1				C113 AND C121	E.1/93	
	with a BIP channel currently opened	R99	1.2				C113 AND C121	E.1/89 AND E.1/93	
	after a link dropped	R99	1.3				C113 AND C121	E.1/89 AND E.1/93	
36	**DATA DOWNLOAD TO SIM** 27.22.5								
37	**SMS-PP DATA DOWNLOAD** 27.22.5.1								
	General data coding, SIM responds with '90 00'	R96	1.1	M	M	M	M	E.1/2	
	SIM responds with '91 XX'	R96	1.2	M	M	M	M	E.1/2	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
	More time	R96	1.3	M	M	M	M	E.1/2	
	8 bit alphabet	R96	1.4	M	M	M	M	E.1/2	
	Data coding / message class	R96	1.5, 1.6	M	M	M	M	E.1/2	
38	**SMS-CB DATA DOWNLOAD** 27.22.5.2								
	ME does not display message	R96	1.1	M	M	M	M	E.1/3	
	More time	R96	1.2	M	M	M	M	E.1/3 AND E.1/20	
	ME displays message	R96	1.3	M	M	M	M	E.1/3	
39	**CALL CONTROL BY SIM** 27.22.6								
	Procedure for MO calls (Cell identity in envelope call control)	R97	1.1 to 1.14		M	M	M	E.1/10 AND E.1/11 AND E.1/13 AND E.1/29	
	Procedure for SS (Cell identity in envelope call control)	R97	2.1, 2.2, 2.3, 2.4		M	M	M	E.1/10 AND E.1/11	
	Interaction with FDN (Cell identity in envelope call control)	R97	3.1, 3.2, 3.3, 3.5		M	M	M	E.1/10	
	Support of BDN service (Cell identity in envelope call control)	R97	4.1, 4.2, 4.3, 4.4		M	M	M	E.1/10	
40	**EVENT DOWNLOAD** 27.22.7								
	27.22.7.1: MT call event	R97	1.1		M	M	M	E.1/34 AND E.1/33	
	27.22.7.2.1: call connected event	R97	1.1		M	M	M	E.1/35 AND E.1/33	
	27.22.7.2.2: ME supporting SET UP CALL	R97	2.1		M	M	M	E.1/35 AND E.1/29 AND E.1/33	
	27.22.7.3: call disconnected event	R97	1.1		M	M	M	E.1/36 AND E.1/33	
	27.22.7.4: location status event	R97	1.1		M	M	M	E.1/37 AND E.1/33	
	27.22.7.5: user activity event	R97	1.1		M	M	M	E.1/38 AND	

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
								E.1/33	
	27.22.7.6: idle screen available event	R97	1.1		M	M	M	E.1/39 AND E.1/33	
	27.22.7.7.1: Card reader status normal	R98	1.1			C109	C109	E.1/40 AND E.1/33	
	27.22.7.7.2: Detachable card reader	R98	2.1			C116	C116	E.1/40 AND E.1/33	
	27.22.7.8: language selection event	R99	1.1				M	E.1/41 AND E.1/33	
	27.22.7.9: Browser termination event	R99	1.1				C111	E.1/42 AND E.1/33	
	27.22.7.10: Data available event	R99	1.1				C113 AND C121	E.1/43 AND E.1/89	
	27.22.7.11: Channel status event	R99	1.1				C113 AND C121	E.1/44 AND E.1/89	
41	**MO SMS Control by SIM 27.22.8**								
	With proactive command, Allowed , no modification	R98	1.1			M	M	E1/12 AND E.1/26	
	With user SMS, Allowed , no modification	R98	1.2			M	M	E1/12	
	With proactive command, Not allowed	R98	1.3			M	M	E1/12 AND E.1/26	
	With user SMS, Not allowed	R98	1.4			M	M	E1/12	
	With proactive command, Allowed, with modifications	R98	1.5			M	M	E1/12 AND E.1/26	
	With user SMS, Allowed, with modifications	R98	1.6			M	M	E1/12	
	With Proactive command, the SIM responds with '90 00', Allowed, no modification	R98	1.7			M	M	E1/12 AND E.1/26	
	Send Short Message attempt by user, the SIM responds with '90 00', Allowed, no modification	R98	1.8			M	M	E1/12	
	Send Short Message attempt by user, the SIM responds with '93 00	R98	1.9			M	M	E1/12	

C101   IF A.1/1 THEN M ELSE N/A   -- O_Cap_Conf

Item	Description	Release	Test sequence (s)	Rel 96 ME	Rel 97 ME	Rel 98 ME	Rel 99 ME	Terminal Profile	Support
C102	void								
C103	void								
C104	IF A.1/2 THEN M ELSE N/A -- O_Sust_text								
C105	IF A.1/3 THEN M ELSE N/A -- O_Ucs2_Entry								
C106	IF A.1/4 THEN M ELSE N/A -- O_Ext_Str								
C107	IF A.1/5 THEN M ELSE N/A -- O_Help								
C108	IF A.1/6 THEN (O.1 OR O.2) ELSE N/A -- O_Icons								
C109	IF A.1/7 THEN M ELSE N/A -- O_Dual_Slot								
C110	IF A.1/9 THEN M ELSE N/A -- O_Run_At								
C111	IF A.1/10 THEN M ELSE N/A -- O_LB								
C112	IF A.1/11 THEN M ELSE N/A -- O_Soft_key								
C113	IF A.1/12 THEN M ELSE N/A -- O_BIP_CSD								
C114	IF C110 AND C108 THEN M ELSE N/A -- O_Run_At AND O_Icons								
C115	IF C111 AND C108 THEN M ELSE N/A -- O_LB AND O_Icons								
C116	IF C105 AND A.1/8 THEN M ELSE N/A -- O_Dual_Slot AND O_Detach_Rdr								
C117	IF C111 AND C105 THEN M ELSE N/A -- O_LB AND O_Ucs2								
C118	IF A.1/14 THEN M ELSE N/A -- O_Ucs2_Disp								
C119	IF A.1/19 THEN M ELSE N/A -- O_Redial								
C120	IF A.1/20 THEN M ELSE N/A -- O_D_NoResp								
C121	IF A.1/21 AND A.1/17 THEN M ELSE N/A -- O_BIP_GPRS AND O_UDP								
C122	IF C111 AND A.1/21 THEN M ELSE N/A -- O_LB AND O_BIP_GPRS								
C123	IF C111 THEN O.3 ELSE N/A -- (O_LB AND O_BIP_GPRS AND O_BIP_CSD) OR (O_LB AND O_BIP_CSD)								
C124	IF A.1/22, test x.A M ELSE x.B M (where x is the expected sequence number value) -- O_CP_Subaddr								
O.1	IF (the ME supports icons as defined in record 1 of EF$_{(IMG)}$, tests x.1A M ELSE tests x.1B M (where x is the expected sequence number value)								
O.2	IF the ME supports icons as defined in record 2 of EF$_{(IMG)}$, tests x.2A M ELSE x.2B M (where x is the expected sequence number value)								
O.3	IF (A.1/21 AND A.1/12) tests (x.A AND x.C) M ELSE IF A.1/12 test x.1B M (where x is the expected sequence number value)								

3.5 Conventions for mathematical notations

The conventions for mathematical notations specified in 3GPP TS 51.010-1 [12] clause 3.4 shall apply, unless otherwise specified in the present clause.

3.6 Conventions on electrical terms

The conventions on electrical terms specified in 3GPP TS 51.010-1 [12] clause 3.5 shall apply, unless otherwise specified in the present clause.

3.7 Terms on test conditions

The terms on test conditions specified in 3GPP TS 51.010-1 [12] clause 3.6 shall apply, unless otherwise specified in the present clause.

4 Test equipment

The test equipment is specified in 3GPP TS 51.010-1 [12] clause 4.

5 Testing methodology in general

5.1 Testing of optional functions and procedures

Any function or procedure which is optional, as indicated in the present document, may be subject to a conformance test if it is implemented in the ME.

5.2 Test interfaces and facilities

The test interfaces and facilities specified in 3GPP TS 51.010-1 [12] clause 5.2 shall apply, unless otherwise specified in the present clause.

The SIM interface provides the main test interface for the purpose of performing conformance tests.

5.3 Different protocol layers

The different protocol layers specified in 3GPP TS 51.010-1 [12] clause 5.3 shall apply, unless otherwise specified in the present clause.

5.4 Information to be provided by the apparatus supplier

The information to be provided by the apparatus supplier specified in 3GPP TS 51.010-1 [12] clause 5.4 shall apply, unless otherwise specified in the present clause.

In addition, the apparatus supplier shall provide the information with respect the Supported Option table A.1.

5.5 Definitions of transmit and receive times

The definitions of transmit and receive times specified in 3GPP TS 51.010-1 [12] clause 5.5 shall apply, unless otherwise specified in the present clause.

6 Reference test methods

The reference test methods specified in 3GPP TS 51.010-1 [12] clause 6 shall apply, unless otherwise specified.

7 Implicit testing

For some GSM features conformance is not verified explicitly in the present document. This does not imply that correct functioning of these features is not essential, but that these are implicitly tested to a sufficient degree in other tests.

It should be noted that for these features some aspects have to be and are explicitly tested, e.g. the ability to switch between 3v and 5v operation.

Some SIM features will be explicitly tested as result of other tests. These should be identified for the following reason:

- To identify the areas of overlap and thus provide a more efficient testing.

8 Measurement uncertainty

The measured value relating to the corresponding limit shall be used to determine whether or not a terminal equipment meets the requirement. (ETR 028, annex B).

This process is often referred to as "shared risk".

9 Format of tests

In general the following basic format for tests is used:

27.22.X.X. Tested command

27.22.X.X.1 Command tested in «environment #1'' (NORMAL, ICONS, UCS2 …)

27.22.X.X.1.1 Definition and applicability

This clause refers back to clause 3.2.2.

27.22.X.X.1.2 Conformance requirement

Only if required, this clause details the necessary core specification references.

27.22.X.X.1.3 Test purpose

This clause details the purpose of the test.

27.22.X.X.1.4 Method of test

27.22.X.X.1.4.1 Initial conditions

If present this clause defines the initial conditions to be established before running each test sequence.

27.22.X.X.1.4.2 **Procedure**

This clause details the test procedure. Each test sequence shall be carried out independently unless otherwise stated.

- Sequence 1.1 (further initial conditions, added here)

Command 1.1.1
TERMINAL RESPONSE1.1.1A or 1.1.1B
Command 1.1.2
TERMINAL RESPONSE1.1.2

PROACTIVE COMMAND 1.1.1

TERMINAL RESPONSE 1.1.1A

TERMINAL RESPONSE 1.1.1B

PROACTIVE COMMAND 1.1.2

TERMINAL RESPONSE 1.1.2

- Sequence 1.2

Command 1.2.1
TERMINAL RESPONSE 1.2.1
Command 1.2.2
TERMINAL RESPONSE1.2.2 (same as TERMINAL RESPONSE 1.2.1)
Command 1.2.3
TERMINAL RESPONSE 1.2.3

PROACTIVE COMMAND 1.2.1

PROACTIVE COMMAND 1.2.2

PROACTIVE COMMAND 1.2.3

TERMINAL RESPONSE 1.2.1

TERMINAL RESPONSE 1.2.2

TERMINAL RESPONSE 1.2.3

- Sequence 1.3

Command 1.3.1
TERMINAL RESPONSE1.3.1

PROACTIVE COMMAND 1.3.1

TERMINAL RESPONSE 1.3.1

27.22.X.X.1.5 **Test requirement**

This clause details the conditions to be met for successful completion of the test.

27.22.X.X.2 **Command tested in "environment #2" (NORMAL, ICONS, UCS2 …)**

27.22.X.X. 2.1 **Definition and applicability**

27.22.X.X. 2.2 **Conformance requirement**

27.22.X.X. 2.3 **Test purpose**

27.22.X.X. 2.4 **Method of test**

27.22.X.X. 2.4.1.1 **Initial conditions**

27.22.X.X. 2.4.1.2 **Procedure**

- Sequence 2.1

Command 2.1.1
TERMINAL RESPONSE2.1.1A or 2.1.1B
Command 2.1.2
TERMINAL RESPONSE2.1.2

PROACTIVE COMMAND 2.1.1

TERMINAL RESPONSE 2.1.1A

TERMINAL RESPONSE 2.1.1B

PROACTIVE COMMAND 2.1.2

TERMINAL RESPONSE 2.1.2

- Sequence 2.2

Command 2.2.1
TERMINAL RESPONSE 2.2.1
Command 2.2.2
TERMINAL RESPONSE 2.2.2 (same as TERMINAL RESPONSE 2.2.1)
Command 2.2.3
TERMINAL RESPONSE 2.2.3

PROACTIVE COMMAND 2.2.1

PROACTIVE COMMAND 2.2.2

PROACTIVE COMMAND 2.2.3

Coding TERMINAL RESPONSE 2.2.1

Coding TERMINAL RESPONSE 2.2.2

Coding TERMINAL RESPONSE 2.2.3

27.22.X.X.2.5 **Test requirement**

10 Generic call set up procedures

The generic call set up procedure specified in 3GPP TS 51.010-1 [12] clause 10 shall apply, unless otherwise specified in the present clause.

11 - 26 Not used

27 Testing of the SIM/ME interface

This clause is an addition to 3GPP TS 51.010-1 [12] clause 27 to confirm the correct interpretation of the SIM Application Toolkit commands and the correct operation of the Toolkit facilities.

The definitions, declarations and default values specified in 3GPP TS 51.010-1 [12] clause 27 shall apply, unless otherwise specified in the present clause.

NOTE: As defined in 3GPP TS 51.010-1 [12] clause 27 the term PCS 1900 defines the tests applicable for GSM 700, GSM 850 and PCS 1900 MS.

A SIM Simulator with the appropriate SIM Application Toolkit functionality will be required. The SIM data defined below shall be used for all test cases unless otherwise specified within the test case.

The comprehension required flags in SIMPLE-TLV objects that are included in a TERMINAL RESPONSE or an ENVELOPE shall be set as described in TS 11.14 [15]. This means that in cases where it is up to the ME to decide if this flag is used or not, the corresponding Tag coding in the TERMINAL RESPONSEs and ENVELOPEs in this document represents only one of the two valid possibilities.

27.1 - 27.21 Void

27.22   SIM Application Toolkit

27.22.1A General Test purpose

Testing of functional conformance to SIM Application Toolkit commands, including pro-active SIM commands.

All facilities given by the TERMINAL PROFILE as supported, for which tests exist in the present document, shall be tested.

Many of the proactive SIM commands include an alpha identifier data object. This is intended to be a short one or two word identifier for the ME to optionally display on the screen along with any other indications, at the same time as the ME performs the SIM command.

NOTE: The sequence of SIM Application Toolkit commands are specific to the Toolkit Application being executed within the SIM, hence sequential testing of commands is not possible. The testing will therefore have to be performed on a command by command basis.

27.22.2A Definition of default values for SIM Application Toolkit testing

A SIM containing the following default values is used for all tests of this clause unless otherwise stated.

For each item, the logical default values and the coding within the Elementary Files (EF) of the SIM follow, as defined in:

- 3GPP TS 51. 010-1 [12], clause 27.

NOTE 1: Bx represents byte x of the coding.

NOTE 2: Unless otherwise defined, the coding values in binary.

EFSST (SIM Service Table)

Logically:

(Service 2)	Abbreviated Dialling Numbers allocated and activated
(Service 3)	Fixed Dialling Numbers allocated and activated
(Service 10)	Extension 1 allocated and activated
(Service 11)	Extension 2 allocated and activated
(Service 12)	SMS Parameters allocated and activated
(Service 14)	Cell Broadcast Message Identifier allocated and activated
(Service 25)	Data download via SMS-CB allocated and activated
(Service 26)	Data download via SMS-PP allocated and activated
(Service 27)	Menu selection allocated and activated
(Service 28)	Call control allocated and not activated

(Service 29)   Proactive SIM allocated and activated
(Service 30)   Cell Broadcast Message Identifier Ranges allocated and activated
(Service 31)   Barred Dialling Numbers allocated and not activated
(Service 32)   Extension4 allocated and activated
(Service 37)   Mobile Originated Short Message control by SIM allocated and not activated
(Service 39)   Image (IMG) allocated and activated
(Service 41)   USSD string data object supported in Call Control allocated and activated
(Service 42)   RUN AT COMMAND command allocated and activated
(Service 48)   Extended Capability Configuration Parameters allocated and activated

Coding:	B1	B2	B3	B4
	xx1111xx	xxxxxxxx	111111xx	xxxx11xx

	B5	B6	B7	B8
	xxxxxxxx	xxxxxxxx	01111111	11011111

	B9	B10	B11	B12
	xxxxxxxx	xx11xx01	xxxx1111	11xxxxxx

EF$_{Phase}$ (SIM Phase Identification)

Logically: Phase 2+

Coding:	'03'

EF$_{IMSI}$ (International Mobile Subscriber Identity)

Logically:

Length: 8 bytes
IMSI: 001 01 0123456789

Coding:	'08 09 10 10 10 32 54 76 98'

EF$_{CBMI}$ (Cell Broadcast Message Identifier)

Logically:

Cell Broadcast Message Identifier 1:   '0C 0C'

Coding:	0C	0C	FF	..	FF						

EF$_{CBMID}$ (Cell Broadcast Message Identifier for Data Download)

Logically:

Cell Broadcast Message Identifier 1:   '10 01'

Coding:	10	01	FF	..	FF						

EF$_{FDN}$ (Fixed Dialling Numbers)

Logically:

At least 10 records

Record 1:
Length of alpha identifier: 32 characters
Alpha identifier: "ABC"

ETSI

Length of BCD number:	"03"
TON and NPI:	Telephony and Unknown
Dialled number:	123
CCI:	None
Ext2:	None

Coding:	B1	B2	B3	B4	...	B32	B33	B34	B35	B36	B37	...	B46
Record 1:	41	42	43	FF	...	FF	03	81	21	F3	FF	...	FF

Record 2:

Length of alpha identifier:	32 characters
Alpha identifier:	"DEF"
Length of BCD number:	"04"
TON and NPI:	Telephony and Unknown
Dialled number:	9876
CCI:	None
Ext2:	None

Coding:	B1	B2	B3	B4	...	B32	B33	B34	B35	B36	B37	...	B46
Record 1:	44	45	46	FF	...	FF	03	81	89	67	FF	...	FF

EF$_{BDN}$ (Barred Dialling Numbers)

Logically:

At least 10 records

Record 1:

Length of alpha identifier:	32 characters
Alpha identifier:	"CBA"
Length of BCD number:	"03"
TON and NPI:	Telephony and Unknown
Dialled number:	321
CCI:	None
Ext4:	None
Comparison Method Info:	None

Coding:	B1	B2	B3	B4	...	B32	B33	B34	B35	B36	B37	...	B46
Record 1:	43	42	41	FF	...	FF	03	81	23	F1		...	FF

NOTE: EF$_{BDN}$ shall be invalidated unless otherwise stated, i.e. by indicating that Barred Dialling Numbers service is enabled.

EF$_{ECC}$ (Emergency Call Codes)

Logically:

Emergency Call Code 1: '1020'

Coding:			01		02		FF				

Emergency Call Code 2: '112'

Coding:			11		F2		FF				

EF$_{SMSP}$ (Short message service parameters)

Logically:

Record 1:
Record length: 28 bytes
Parameter Indicators:
    TP-Destination Address: Parameter absent
    TS-Service Centre Address: Parameter present
    TP-Protocol Identifier: Parameter absent
    TP-Data Coding Scheme: Parameter absent
    TP-Validity Period: Parameter absent
TS-Service Centre Address:
    TON: International Number
    NPI: "ISDN / telephone numbering plan"
    Dialled number string: "112233445566778"

Coding:	B1	B2	B3	...	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23
Record 1:	FD	FF	FF	...	FF	09	91	11	22	33	44	55	66	77	F8

B24	B25	B26	B27	B28
FF	FF	FF	FF	FF

For the display of icon:

- Under the DF Telecom: creation of DF Graphics (5F50);

- Under the DF 5F50: creation of EF$_{Img}$ (4F20, linear fixed file) and EF$_{Instance}$ (4FXX, transparent file).

EF$_{Img}$ (Image, 4F20)

Record 1:

Logically:

Number of Actual Images Instances: 01
Image Instance Width: 08
Image Instance Height: 08
Image Coding Scheme: 11 (basic image)
Image Instance File Identifier: 4F 04 (EF$_{Instance}$)
Offset into Image Instance File: 00 00
Length of Image Instance Data: 00 0A

Coding:

Coding:	01	08	08	11	4F	04	00	00	00	0A	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 2:

Logically:

Number of Actual Images Instances: 01
Image Instance Width: 08
Image Instance Height: 08
Image Coding Scheme: 21 (colour image)
Image Instance File Identifier: 4F 02(EF$_{Instance}$)
Offset into Image Instance File: 00 00
Length of Image Instance Data: 00 16

Coding:

Coding:	01	08	08	21	4F	02	00	00	00	16	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 3:

Logically:

Number of Actual Images Instances:	01
Image Instance Width:	18
Image Instance Height:	10
Image Coding Scheme:	11 (basic image)
Image Instance File Identifier:	4F 03 (EF$_{Instance}$)
Offset into Image Instance File:	00 00
Length of Image Instance Data:	00 32

Coding:

Coding:	01	18	10	11	4F	03	00	00	00	32	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 4:

Logically:

Number of Actual Images Instances:	01
Image Instance Width:	2E
Image Instance Height:	28
Image Coding Scheme:	11 (basic image)
Image Instance File Identifier:	4F 01 (EF$_{Instance}$)
Offset into Image Instance File:	00 00
Length of Image Instance Data:	00 E8

Coding:

Coding:	01	2E	28	11	4F	01	00	00	00	E8	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 5:

Logically:

Number of Actual Images Instances:	01
Image Instance Width:	05
Image Instance Height:	05
Image Coding Scheme:	11 (basic image)
Image Instance File Identifier:	4F 05 (EF$_{Instance}$)
Offset into Image Instance File:	00 00
Length of Image Instance Data:	00 08

Coding:

Coding:	01	05	05	11	4F	05	00	00	00	08	FF	FF
	FF	FF	FF	FF	FF	FF						

EF$_{Instance}$ (4F01)

Logically:

Image Instance Data:	see below

Coding:

Coding:	2E	28	00	00	00	00	00	00	00	01	FF	80
	00	00	00	0F	FF	00	00	00	00	77	FE	00
	00	00	01	BF	F8	00	00	00	06	FF	E0	00
	00	00	1A	03	80	00	00	00	6B	F6	BC	00
	00	01	AF	D8	38	00	00	06	BF	60	20	00
	00	1A	FD	80	40	00	00	6B	F6	00	80	00
	01	A0	1F	02	00	00	06	FF	E4	04	00	00
	1B	FF	90	10	00	00	6D	EE	40	40	00	01
	BF	F9	01	00	00	6F	FF	E4	04	00	00	1B
	FF	90	10	00	00	6F	FE	40	40	00	01	BF
	F9	01	00	00	06	FF	E6	04	00	00	1B	FF
	88	10	00	00	6F	FE	20	40	00	01	BF	F8
	66	00	00	06	FF	E0	F0	00	00	1B	FF	80
	80	00	00	7F	FE	00	00	00	03	00	0C	00
	00	00	1F	FF	F8	00	00	00	00	00	00	00
	00	00	00	00	00	00	00	00	00	00	00	00
	1C	21	08	44	EE	00	48	C4	31	92	20	01
	25	11	45	50	80	07	14	45	15	43	80	12
	71	1C	4D	08	00	4A	24	89	32	20	01	C8
	9E	24	4E	E0								

EF~Instance~ (4F02)

Logically:

Image Instance Data:

Image width:	08
Image length:	08
Bits per raster image point:	02
Number of CLUT entries:	03
Location of CLUT:	00 16
Image body:	see below

Coding:

Coding:	08	08	02	03	00	16	AA	AA	80	02	85	42
	81	42	81	42	81	52	80	02	AA	AA	FF	00
	00	00	FF	00	00	00	FF					

EF~Instance~ (4F03)

Logically:

Image Instance Data: see below

Coding:

Coding:	18	10	FF	FF	FF	80	00	01	80	00	01	80
	00	01	8F	3C	F1	89	20	81	89	20	81	89
	20	F1	89	20	11	89	20	11	89	20	11	8F
	3C	F1	80	00	01	80	00	01	80	00	01	FF
	FF	FF										

EF~Instance~ (4F04)

Logically:

Image Instance Data: see below

Coding:

Coding:	08	08	FF	03	A5	99	99	A5	C3	FF

EF_{Instance} (4F05)

Logically:

    Image Instance Data: see below

Coding:

Coding:	05	05	FE	EB	BF	FF	FF	FF

27.22.1 Initialization of SIM Application Toolkit Enabled SIM by SIM Application Toolkit Enabled ME (Profile Download)

27.22.1.1 Definition and applicability

See clause 3.2.2.

27.22.1.2 Conformance requirement

The ME shall support the PROFILE DOWNLOAD command as defined in:

- 3GPP TS 11.14 [15] clause 5.2.

27.22.1.3 Test purpose

To verify that the ME sends a TERMINAL PROFILE command in accordance with the above requirements.

27.22.1.4 Method of test

27.22.1.4.1 Initial conditions

The ME is connected to the SIM Simulator. All elementary files are coded as the default Toolkit personalization, with the CHV1 enabled.

27.22.1.4.2 Procedure

Expected Sequence 1 (PROFILE DOWNLOAD)

Step	Direction	Message / Action	Comments
1	USER → ME	Power on ME	
2	ME → USER	PIN entry request	
3	USER → ME	Enter "1111"	
...			
4	ME → SIM	VERIFY CHV1 1.1A	[CHV1 code: "1111"]
5	SIM → ME	VERIFY CHV ATTEMPT UNSUCCESSFUL 1.1A	
...			
6	ME → USER	PIN entry request	
7	USER → ME	Enter "1234"	
8	ME → SIM	VERIFY CHV1 1.1B	[CHV1 code: "1234"]
9	SIM → ME	NORMAL ENDING OF COMMAND 1.1A	
10	ME → SIM	SELECT EF PHASE 1.2	
11	ME → SIM	READ BINARY (EF PHASE) 1.3	Expected PHASE = 03 returned by SIM
12	ME → SIM	TERMINAL PROFILE 1.4	PROFILE DOWNLOAD
13	SIM → ME	NORMAL ENDING OF COMMAND 1.1A	
14	ME → SIM	SELECT EF IMSI 1.5 or SELECT EF LOCI 1.6	

VERIFY CHV1 : 1.1A

Logically:

Coding:

APDU:	CLA=A0	INS=20	P1=00	P2=01	P3=08

DATA IN:	31	31	31	31	FF	FF	FF	FF

VERIFY CHV1 ATTEMPT UNSUCCESSFUL: 1.1A

Logically:

Coding:

SW1=98	SW2=04

VERIFY CHV1: 1.1B

Logically:

Coding:

APDU:	CLA=A0	INS=20	P1=00	P2=01	P3=08

DATA IN:	31	32	33	34	FF	FF	FF	FF

NORMAL ENDING OF COMMAND: 1.1A

Logically:

Coding:

SW1=90	SW2=00

SELECT EF PHASE: 1.2

Logically:

Coding:

APDU:	CLA=A0	INS=A4	P1=00	P2=00	P3=02

DATA IN:	6F	AE

Response:

SW1=9F	SW2=0F

READ BINARY (EF PHASE): 1.3

Logically:

Coding:

APDU:	CLA=A0	INS=B0	P1=00	P2=00	P3=01

Response:

DATA OUT:	03

SW1=90	SW2=00

TERMINAL PROFILE: 1.4

Logically:

Coding:

APDU:	CLA=A0	INS=10	P1=00	P2=01	P3=XX

DATA IN:	YY	ZZ	…

With XX representing the length of the following DATA IN depending on the SIM Toolkit commands supported by the ME, and with YY, ZZ, … representing here the bytes of the TERMINAL PROFILE data, as specified in 3GPP TS 11.14 [15], clause 5.2.

SELECT EF IMSI: 1.5

Logically:

Coding:

APDU:	CLA=A0	INS=A4	P1=00	P2=00	P3=02

DATA IN:	6F	07

SELECT EF LOCI: 1.6

Logically:

Coding:

APDU:	CLA=A0	INS=A4	P1=00	P2=00	P3=02

DATA IN:	6F	7E

27.22.1.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.

27.22.2   Contents of the TERMINAL PROFILE command

27.22.2.1   Definition and applicability

See table E.1.

27.22.2.2   Conformance requirement

The ME shall support the PROFILE DOWNLOAD command as defined in:

- 3GPP TS 11.14 [15] clause 5.2.

27.22.2.3   Test purpose

1. Verify that the TERMINAL PROFILE indicates that Profile Download facility is supported.

2. Record which SIM Application Toolkit facilities are supported by the ME, to determine which subsequent tests are required.

27.22.2.4   Method of test

27.22.2.4.1   Initial conditions

The ME is connected to the SIM Simulator. All elementary files are coded as the default SIM Application Toolkit personalization.

27.22.1.4.2   Procedure

a) The ME is powered on.

b) After the ME sends the TERMINAL PROFILE command to the SIM Simulator, the SIM Simulator shall record the content of the TERMINAL PROFILE.

c) The SIM Simulator shall return SW1 / SW2 of '90 00'.

d) The contents of the TERMINAL PROFILE is recorded and compared to the corresponding table E.1 "status" column.

The test is terminated upon the ME sending the TERMINAL PROFILE command to the SIM Simulator.

27.22.2.5 Test requirement

1) After step a) the ME shall send the TERMINAL PROFILE command to the SIM Simulator with bit 1 of the first byte set to 1 (facility supported by ME).

2) In table E.1 for the corresponding ME Sim Toolkit Release and Options, The TERMINAL PROFILE information "support" recorded must be in accordance with the "Status" column.

27.22.3 Servicing of proactive SIM commands

27.22.3.1 Definition and applicability

See clause 3.2.2.

27.22.3.2 Conformance requirement

On detection of a pending SIM Application Toolkit command from the SIM the ME shall perform the FETCH command to retrieve the proactive SIM command. The result of the executed command shall be transmitted from the ME to the SIM within a TERMINAL RESPONSE command.

The MORE TIME proactive command is used in this test. The ME shall have knowledge of this command, but may not support this SIM Application Toolkit facility.

- 3GPP TS 11.14 [15] clause 6.3.

27.22.3.3 Test purpose

To verify that the ME uses the FETCH command to obtain the proactive SIM command, after detection of a pending proactive SIM command. The pending proactive SIM command is indicated by the response parameters '91 xx' from the SIM.

To verify that the ME transmits the result of execution of the proactive SIM command to the SIM in the TERMINAL RESPONSE command.

27.22.3.4 Method of test

27.22.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as the SIM Application Toolkit default.

The SIM Simulator is configured to indicate that a proactive SIM command is pending.

The SIM Simulator is configured to monitor the SIM - ME interface.

27.22.3.4.2 Procedure

a) The ME is powered on.

b) After the ME has performed the PROFILE DOWNLOAD procedure, the SIM Simulator indicates that a Proactive SIM Command is pending with SW1 / SW2 of '91 0B'.

c) After the ME sends the FETCH command to the SIM Simulator, the SIM Simulator returns Proactive SIM Command 2.1: MORE TIME.

27.22.3.5 Test requirement

1) After step b) the ME shall send the FETCH command to the SIM.

2) After step c) the ME shall send the TERMINAL REPONSE command with command number "01", type of command "02" and command qualifier "00".

27.22.4   Proactive SIM commands

27.22.4.1   DISPLAY TEXT

27.22.4.1.1   DISPLAY TEXT (Normal)

27.22.4.1.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.1.1.2   Conformance requirements

The ME shall support the DISPLAY TEXT command as defined in the following technical specifications:

3GPP TS 11.14 [15], clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.31.

27.22.4.1.1.3   Test purpose

To verify that the ME displays the text contained in the DISPLAY TEXT proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.1.1.4   Method of test

27.22.4.1.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.1.1.4.2   Procedure

Expected Sequence 1.1 (DISPLAY TEXT normal priority, Unpacked 8 bit data for Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.1.1	[Normal priority, wait for user to clear message, unpacked, 8 bit data]
4	ME → USER	Display "Toolkit Test 1"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.1.1	[Command performed successfully]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 1.1.1

Logically:

Command details

```
        Command number:        1
        Command type:          DISPLAY TEXT
        Command qualifier:     normal priority, wait for user to clear message
    Device identities
        Source device:         SIM
        Destination device:    Display
    Text String
        Data coding scheme:    unpacked, 8 bit data
        Text:                  "Toolkit Test 1"
```

Coding:

BER-TLV:	D0	1A	81	03	01	21	80	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	31								

TERMINAL RESPONSE: DISPLAY TEXT 1.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          DISPLAY TEXT
        Command qualifier:     normal priority, wait for user to clear message
    Device identities
        Source device:         ME
        Destination device:    SIM
    Result
        General Result:        Command performed successfully
```

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 1.2 (DISPLAY TEXT normal priority, Unpacked 8 bit data for Text String, screen busy)

Step	Direction	MESSAGE / Action	Comments
1	USER → ME	Set the ME screen to a display mode other than the normal stand-by display	The ME will be set to a mode so that normal priority text commands shall be rejected.
2	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.2.1	
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.2.1	[Normal priority]
5	ME → USER	No change of the currently being used display.	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.2.1	[ME currently unable to process command - screen busy]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 1.2.1: same as 1.1.1

TERMINAL RESPONSE: DISPLAY TEXT 1.2.1

Logically:

```
    Command details
        Command number:        1
```

	Command type:	DISPLAY TEXT
	Command qualifier:	normal priority, wait for user to clear message
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	ME currently unable to process command
	Additional information:	Screen is busy

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	02	20
	01											

Expected Sequence 1.3 (DISPLAY TEXT, high priority, Unpacked 8 bit data for Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.3.1	The ME screen is in a mode other than the normal stand by display.
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.3.1	[High priority]
4	ME → USER	Display "Toolkit Test 2"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.3.1	
7	SIM → ME	PROACTIVE SIM SESSION ENDED	
8	USER → ME	Set the ME screen back to normal stand-by display	

PROACTIVE COMMAND: DISPLAY TEXT 1.3.1

Logically:

    Command details

	Command number:	1
	Command type:	DISPLAY TEXT
	Command qualifier:	high priority, wait for user to clear message
Device identities		
	Source device:	SIM
	Destination device:	Display
Text String		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"Toolkit Test 2"

Coding:

BER-TLV:	D0	1A	81	03	01	21	81	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	32								

TERMINAL RESPONSE: DISPLAY TEXT 1.3.1

Logically:

    Command details

	Command number:	1
	Command type:	DISPLAY TEXT
	Command qualifier:	high priority, wait for user to clear message

Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	81	82	02	82	81	83	01	00

Expected Sequence 1.4 (DISPLAY TEXT, Packed, SMS default alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.4.1	[Packed, SMS default alphabet]
4	ME → USER	Display "Toolkit Test 3"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.4.1	[Command performed successfully]

PROACTIVE COMMAND: DISPLAY TEXT 1.4.1

Logically:

Command details
  Command number: 1
  Command type: DISPLAY TEXT
  Command qualifier: normal priority, wait for user to clear message
Device identities
  Source device: SIM
  Destination device: Display
Text string
  Data coding scheme: packed, SMS default alphabet
  Text: "Toolkit Test 3"

Coding:

BER-TLV:	D0	19	81	03	01	21	80	82	02	81	02	8D
	0E	00	D4	F7	9B	BD	4E	D3	41	D4	F2	9C
	0E	9A	01									

TERMINAL RESPONSE: DISPLAY TEXT 1.4.1

Logically:

Command details
  Command number: 1
  Command type: DISPLAY TEXT
  Command qualifier: normal priority, wait for user to clear message
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 1.5 (DISPLAY TEXT, Clear message after delay, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.5.1	[Clear message after a delay]
4	ME → USER	Display "Toolkit Test 4" and clear this message after a short delay	
5	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.5.1	[Command performed successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, clear message after a delay
    Device identities
        Source device: SIM
        Destination device: Display
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "Toolkit Test 4"

Coding:

BER-TLV:	D0	1A	81	03	01	21	00	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	34								

TERMINAL RESPONSE: DISPLAY TEXT 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, clear message after a delay
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	00	82	02	82	81	83	01	00

Expected Sequence 1.6 (DISPLAY TEXT, Text string with 160 bytes, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.6.1	[Text string with 160 bytes - maximum for non extension text]
4	ME → USER	Display "This command instructs the ME to display a text message. It allows the SIM to define the priority of that message, and the text string format. Two types of prio"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.6.1	Command performed successfully

PROACTIVE COMMAND: DISPLAY TEXT 1.6.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: SIM
    Destination device: Display
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "This command instructs the ME to display a text message. It allows the SIM to define the priority of that message, and the text string format. Two types of prio"

Coding:

BER-TLV:	D0	81	AD	81	03	01	21	80	82	02	81	02
	8D	81	A1	04	54	68	69	73	20	63	6F	6D
	6D	61	6E	64	20	69	6E	73	74	72	75	63
	74	73	20	74	68	65	20	4D	45	20	74	6F
	20	64	69	73	70	6C	61	79	20	61	20	74
	65	78	74	20	6D	65	73	73	61	67	65	2E
	20	49	74	20	61	6C	6C	6F	77	73	20	74
	68	65	20	53	49	4D	20	74	6F	20	64	65
	66	69	6E	65	20	74	68	65	20	70	72	69
	6F	72	69	74	79	20	6F	66	20	74	68	61
	74	20	6D	65	73	73	61	67	65	2C	20	61
	6E	64	20	74	68	65	20	74	65	78	74	20
	73	74	72	69	6E	67	20	66	6F	72	6D	61
	74	2E	20	54	77	6F	20	74	79	70	65	73
	20	6F	66	20	70	72	69	6F				

TERMINAL RESPONSE: DISPLAY TEXT 1.6.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM

Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 1.7 (DISPLAY TEXT, Backward move in SIM session, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.7.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.7.1	
4	ME → USER	Display "<GO-BACKWARDS>"	
5	USER → ME	Indicate the need to go backwards in the proactive SIM application session	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.7.1	[Backward move in the proactive SIM session requested by the user]

PROACTIVE COMMAND: DISPLAY TEXT 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "<GO-BACKWARDS>"

Coding:

BER-TLV:	D0	1A	81	03	01	21	80	82	02	81	02	8D
	0F	04	3C	47	4F	2D	42	41	43	4B	57	41
	52	44	53	3E								

TERMINAL RESPONSE: DISPLAY TEXT 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Backward move in the proactive SIM session requested by the user

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	11

ETSI

Expected Sequence 1.8 (DISPLAY TEXT, session terminated by user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.8.1	
4	ME → USER	Display "<ABORT>"	
5	USER → ME	Indicate the need to end the proactive SIM application session	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.8.1	[Proactive SIM session terminated by the user]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 1.8.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "<ABORT>"

Coding:

BER-TLV:	D0	13	81	03	01	21	80	82	02	81	02	8D
	08	04	3C	41	42	4F	52	54	3E			

TERMINAL RESPONSE: DISPLAY TEXT 1.8.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Proactive SIM session terminated by the user

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	10

Expected Sequence 1.9 (DISPLAY TEXT, icon and text to be displayed, no text string given, not understood by ME)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.9.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.9.1	Including icon identifier, icon shall be displayed together with the alpha text string, but no text string given
4	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.9.1	[Command data not understood by ME (clause 6.5.4)]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text string
        Contents: null data object
    Icon Identifier:
        Icon qualifier: icon is self-explanatory
        Icon Identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	0F	81	03	01	21	80	82	02	81	02	8D
	00	9E	02	00	01							

TERMINAL RESPONSE: DISPLAY TEXT 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command data not understood by ME

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	32

27.22.4.1.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.9.

27.22.4.1.2 DISPLAY TEXT (Support of "No response from user")

27.22.4.1.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.2.2 Conformance requirement

The ME shall support the DISPLAY TEXT command as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

27.22.4.1.2.3 Test purpose

To verify that the ME displays the text contained in the DISPLAY TEXT proactive SIM command, and returns a "No response from user" result value in the TERMINAL RESPONSE command send to the SIM.

27.22.4.1.2.4 Method of test

27.22.4.1.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

ME Manufacturers shall set the "no response from user" period of time.

The SIM simulator shall be set to that period of time.

27.22.4.1.2.4.2 Procedure

Expected Sequence 2.1 (DISPLAY TEXT, no response from user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 2.1.1	[Normal priority, wait for user to clear message, unpacked, 8 bit data]
4	ME → USER	Display "<TIME-OUT>"	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 2.1.1	[No response from user] within 5 s after the end of that defined period of time
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 2.1.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: SIM
    Destination device: Display

Text string

| | Data coding scheme: | unpacked, 8 bit data |
| | Text: | "<TIME-OUT>" |

Coding:

BER-TLV:	D0	16	81	03	01	21	80	82	02	81	02	8D
	0B	04	3C	54	49	4D	45	2D	4F	55	54	3E

TERMINAL RESPONSE: DISPLAY TEXT 2.1.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: No response from user

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	12

27.22.4.1.2.5   Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.1.3   DISPLAY TEXT (Display of extension text)

27.22.4.1.3.1   Definition and applicability

See clause 3.2.2.

27.22.4.1.3.2   Conformance requirement

The ME shall support the DISPLAY TEXT command as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

27.22.4.1.3.3   Test purpose

To verify that the ME displays the extension text contained in the DISPLAY TEXT proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.1.3.4   Method of test

27.22.4.1.3.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.1.3.4.2   Procedure

Expected Sequence 3.1 (DISPLAY TEXT, display of the extension text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 3.1.1	[Text string with the maximum of 240 bytes]
4	ME → USER	Display "This command instructs the ME to display a text message, and/or an icon (see clause 6.5.4). It allows the SIM to define the priority of that message, and the text string format. Two types of priority are defined:- display normal priority text and/"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 3.1.1	[Command performed successfully]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 3.1.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: SIM
    Destination device: Display
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "This command instructs the ME to display a text message and/or an icon (see clause 6.5.4). It allows the SIM to define the priority of that message, and the text string format. Two types of priority are defined:- display normal priority text and/"

Coding:

BER-TLV:	D0	81	FD	81	03	01	21	80	82	02	81	02
	8D	81	F1	04	54	68	69	73	20	63	6F	6D
	6D	61	6E	64	20	69	6E	73	74	72	75	63
	74	73	20	74	68	65	20	4D	45	20	74	6F
	20	64	69	73	70	6C	61	79	20	61	20	74
	65	78	74	20	6D	65	73	73	61	67	65	2C
	20	61	6E	64	2F	6F	72	20	61	6E	20	69
	63	6F	6E	20	28	73	65	65	20	36	2E	35
	2E	34	29	2E	20	49	74	20	61	6C	6C	6F
	77	73	20	74	68	65	20	53	49	4D	20	74
	6F	20	64	65	66	69	6E	65	20	74	68	65
	20	70	72	69	6f	72	69	74	79	20	6F	66
	20	74	68	61	74	20	6D	65	73	73	61	67
	65	2C	20	61	6E	64	20	74	68	65	20	74
	65	78	74	20	73	74	72	69	6E	67	20	66
	6F	72	6D	61	74	2E	20	54	77	6F	20	74
	79	70	65	73	20	6F	66	20	70	72	69	6F
	72	69	74	79	20	61	72	65	20	64	65	66
	69	6E	65	64	3A	2D	20	64	69	73	70	6C
	61	79	20	6E	6F	72	6D	61	6C	20	70	72
	69	6F	72	69	74	79	20	74	65	78	74	20

61	6E	64	2F								

TERMINAL RESPONSE: DISPLAY TEXT 3.1.1

Logically:

Command details
      Command number: 1
      Command type: DISPLAY TEXT
      Command qualifier: normal priority, wait for user to clear message
Device identities
      Source device: ME
      Destination device: SIM
Result
      General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

27.22.4.1.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.1.4 DISPLAY TEXT (Sustained text)

27.22.4.1.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.4.2 Conformance requirement

The ME shall support the DISPLAY TEXT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.43.

27.22.4.1.4.3 Test purpose

To verify that the ME displays the text contained in the DISPLAY TEXT proactive SIM command, returns a successful result in the TERMINAL RESPONSE command send to the SIM and sustain the display beyond sending the TERMINAL response.

27.22.4.1.4.4 Method of test

27.22.4.1.4.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.1.4.4.2   Procedure

Expected Sequence 4.1 (DISPLAY TEXT, sustained text, unpacked data 8 bits, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 4.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 4.1.1	[Normal priority, wait for user to clear message, unpacked, 8 bit data]
4	ME → USER	Display "Toolkit Test 1"	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 4.1.1	[Command performed successfully]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	
8	ME → USER	Display of "Toolkit Test 1" shall sustain	Text shall sustain until - a subsequent proactive command is received containing display data.

PROACTIVE COMMAND: DISPLAY TEXT 4.1.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Toolkit Test 1"
    Immediate Response

Coding:

BER-TLV:	D0	1C	81	03	01	21	80	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	31	AB	00						

TERMINAL RESPONSE: DISPLAY TEXT 4.1.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 4.2 (DISPLAY TEXT, sustained text, clear message after delay, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 4.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 4.2.1	[Clear message after a delay]
4	ME → USER	Display "Toolkit Test 2"	
5	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 4.2.1	[Command performed successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	ME → USER	Display "Toolkit Test 2"	Text shall sustain until - the expiration of a short delay.

PROACTIVE COMMAND: DISPLAY TEXT 4.2.1

Logically:

> Command details
>> Command number: 1
>> Command type: DISPLAY TEXT
>> Command qualifier: normal priority, clear message after a delay
> Device identities
>> Source device: SIM
>> Destination device: Display
> Text String
>> Data coding scheme: unpacked, 8 bit data
>> Text: "Toolkit Test 2"
> Immediate Response

Coding:

BER-TLV:	D0	1C	81	03	01	21	00	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	32	AB	00						

TERMINAL RESPONSE: DISPLAY TEXT 4.2.1

Logically:

> Command details
>> Command number: 1
>> Command type: DISPLAY TEXT
>> Command qualifier: normal priority, clear message after a delay
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	00	82	02	82	81	83	01	00

Expected Sequence 4.3 (DISPLAY TEXT, sustained text, wait for user MMI to clear, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 4.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 4.3.1	[wait for user to clear message]
4	ME → USER	Display "Toolkit Test 3"	
5	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 4.3.1	[Command performed successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	ME → USER	Display of "Toolkit Test 3"	Text shall sustain until - a user MMI action.
8	USER → ME	Clear message	

PROACTIVE COMMAND: DISPLAY TEXT 4.3.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Toolkit Test 3"
    Immediate Response

Coding:

BER-TLV:	D0	1C	81	03	01	21	80	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	33	AB	00						

TERMINAL RESPONSE: DISPLAY TEXT 4.3.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 4.4 (DISPLAY TEXT, sustained text, wait for high priority event to clear, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 4.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 4.4.1	[wait for user to clear message]
4	ME → USER	Display "Toolkit Test 4"	
5	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 4.4.1	[Command performed successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	ME → USER	Display of "Toolkit Test 4"	Text shall sustain until - a higher priority event occurs.
8	SS → ME	INCOMING MOBILE TERMINATED CALL	

PROACTIVE COMMAND: DISPLAY TEXT 4.4.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Toolkit Test 4"
    Immediate Response

Coding:

BER-TLV:	D0	1C	81	03	01	21	80	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	34	AB	00						

TERMINAL RESPONSE: DISPLAY TEXT 4.4.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

27.22.4.1.4.5   Test requirement

The ME shall operate in the manner defined in expected sequences 4.1 to 4.4.

27.22.4.1.5   DISPLAY TEXT (Display of icons)

27.22.4.1.5.1   Definition and applicability

See clause 3.2.2.

27.22.4.1.5.2   Conformance requirement

The ME shall support the DISPLAY TEXT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.31.

27.22.4.1.5.3   Test purpose

To verify that the ME displays the icons which are referred to in the contents of the DISPLAY TEXT proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.1.5.4   Method of test

27.22.4.1.5.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME screen shall be in its normal stand-by display.

27.22.4.1.5.4.2   Procedure

Expected Sequence 5.1A (DISPLAY TEXT, display of basic icon, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display the BASIC-ICON	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.1.1A	[Command performed successfully]

PROACTIVE COMMAND: DISPLAY TEXT 5.1.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Basic Icon"

Icon Identifier:
    Icon qualifier: icon is self-explanatory
    Icon Identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	1A	81	03	01	21	80	82	02	81	02	8D
	0B	04	42	61	73	69	63	20	49	63	6F	6E
	9E	02	00	01								

TERMINAL RESPONSE: DISPLAY TEXT 5.1.1A

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 5.1B (DISPLAY TEXT, display of basic icon, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display "Basic Icon" without icon	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.1.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: DISPLAY TEXT 5.1.1B

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	04

Expected Sequence 5.2A (DISPLAY TEXT, display of colour icon, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.2.1	[COLOUR-ICON]
4	ME → USER	Display the COLOUR-ICON	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.2.1A	[Command performed successfully]

PROACTIVE COMMAND: DISPLAY TEXT 5.2.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Colour Icon"
    Icon Identifier:
        Icon qualifier: icon is self-explanatory
        Icon Identifier: record 2 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	1B	81	03	01	21	80	82	02	81	02	8D
	0C	04	43	6F	6C	6F	75	72	20	49	63	6F
	6E	9E	02	00	02							

TERMINAL RESPONSE: DISPLAY TEXT 5.2.1A

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 5.2B (DISPLAY TEXT, display of colour icon, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.2.1	[COLOUR-ICON]
4	ME → USER	Display "Colour Icon" without the icon	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.2.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: DISPLAY TEXT 5.2.1B

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	04

Expected Sequence 5.3A (DISPLAY TEXT, display of basic icon, not self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.3.1	[BASIC-ICON, not self-explanatory]
4	ME → USER	Display the BASIC-ICON And Display "Basic Icon"	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.3.1A	[Command performed successfully]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: DISPLAY TEXT 5.3.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message

Device identities
    Source device: SIM
    Destination device: Display
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Basic Icon"
Icon Identifier:
    Icon qualifier: icon is not self-explanatory
    Icon Identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	1A	81	03	01	21	80	82	02	81	02	8D
	0B	04	42	61	73	69	63	20	49	63	6F	6E
	9E	02	01	01								

TERMINAL RESPONSE: DISPLAY TEXT 5.3.1A

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

Expected Sequence 5.3B (DISPLAY TEXT, display of basic icon, not self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 5.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 5.3.1	[BASIC-ICON, not self-explanatory]
4	ME → USER	Display "Basic Icon" without the icon	
5	USER → ME	Clear Message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 5.3.1B	[Command performed successfully, but requested icon could not be displayed]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

TERMINAL RESPONSE: DISPLAY TEXT 5.3.1B

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	04

27.22.4.1.5.5   Test requirement

The ME shall operate in the manner defined in expected sequences 5.1A to 5.3B.

27.22.4.1.6   DISPLAY TEXT (UCS2 display supported)

27.22.4.1.6.1   Definition and applicability

See clause 3.2.2.

27.22.4.1.6.2   Conformance requirement

The ME shall support the DISPLAY TEXT command as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.31.

The ME shall support the UCS2 alphabet for the coding of the Cyrillic alphabet, as defined in the following technical specification: ISO/IEC 10646 [17].

27.22.4.1.6.3   Test purpose

To verify that the ME displays the text contained in the DISPLAY TEXT proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.1.6.4   Method of test

27.22.4.1.6.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.1.6.4.2 Procedure

Expected Sequence 6.1 (DISPLAY TEXT, UCS2 coded)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 6.1.1	[Normal priority, wait for user to clear message, UCS2 coded]
4	ME → USER	Display " ЗДРАВСТВУЙТЕ "	["Hello" in Russian]
5	USER → ME	Clear message	
6	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 6.1.1	

PROACTIVE COMMAND: DISPLAY TEXT 6.1.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: SIM
        Destination device: Display
    Text String
        Data coding scheme: UCS2 (16bit)
        Text: "ЗДРАВСТВУЙТЕ"

Coding:

BER-TLV:	D0	24	81	03	01	21	80	82	02	81	02	8D
	19	08	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15										

TERMINAL RESPONSE: DISPLAY TEXT 6.1.1

Logically:

    Command details
        Command number: 1
        Command type: DISPLAY TEXT
        Command qualifier: normal priority, wait for user to clear message
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

27.22.4.1.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.1.

27.22.4.2 GET INKEY

27.22.4.2.1 GET INKEY(normal)

27.22.4.2.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.1.2 Conformance Requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

27.22.4.2.1.3 Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns the single character entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.1.4 Method of test

27.22.4.2.1.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be set to a display other than the idle display.

27.22.4.2.1.4.2 Procedure

Expected Sequence 1.1 (GET INKEY, digits only for character, Unpacked 8 bit data for Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.1.1	[digits only, no help info available]
4	ME → USER	Display "Enter "+""	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 1.1.1

Logically:

```
Command details
        Command number:        1
        Command type:          GET INKEY
        Command qualifier:     digits (0-9, *, # and +) only, no help information available
Device identities
        Source device:         SIM
        Destination device:    ME
```

Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter "+" "

Coding:

BER-TLV:	D0	15	81	03	01	22	00	82	02	81	82	8D
	0A	04	45	6E	74	65	72	20	22	2B	22	

TERMINAL RESPONSE: GET INKEY 1.1.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 1.2 (GET INKEY, digits only for character set, SMS default Alphabet for Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.2.1	[digits only, no help info available]
4	ME → USER	Display "Enter "0""	
5	USER → ME	Enter the input "0" and completion	Text string coding in packed format
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 1.2.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: SMS default alphabet
    Text: "Enter "0""

Coding:

BER-TLV:	D0	14	81	03	01	22	00	82	02	81	82	8D
	09	00	45	37	BD	2C	07	89	60	22		

TERMINAL RESPONSE: GET INKEY 1.2.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INKEY
	Command qualifier:	digits (0-9, *, # and +) only, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Text String		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"0"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	30								

Expected Sequence 1.3 (GET INKEY, backward move)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.3.1	[digits only, no help information available]
4	ME → USER	Display "<GO-BACKWARDS>"	
5	USER → ME	Backwards move MMI action	Text string coding in unpacked format
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.3.1	[backward move in the proactive SIM session requested by the user]

PROACTIVE COMMAND: GET INKEY 1.3.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INKEY
	Command qualifier:	digits (0-9, *, # and +) only, no help information available
Device identities		
	Source device:	SIM
	Destination device:	ME
Text String		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"<GO-BACKWARDS>"

Coding:

BER-TLV:	D0	1A	81	03	01	22	00	82	02	81	82	8D
	0F	04	3C	47	4F	2D	42	41	43	4B	57	41
	52	44	53	3E								

TERMINAL RESPONSE: GET INKEY 1.3.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: backward move in the proactive SIM session requested by the user

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	11

Expected Sequence 1.4 (GET INKEY, abort)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.4.1	[digits only, no help information available]
4	ME → USER	Display "<ABORT>"	Text string coding in unpacked format
5	USER → ME	Terminate the Proactive SIM session MMI action	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.4.1	[Proactive SIM session terminated by the user]

PROACTIVE COMMAND: GET INKEY 1.4.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "<ABORT>"

Coding:

BER-TLV:	D0	13	81	03	01	22	00	82	02	81	82	8D
	08	04	3C	41	42	4F	52	54	3E			

TERMINAL RESPONSE: GET INKEY 1.4.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY

	Command qualifier:	digits (0-9, *, # and +) only, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Proactive SIM session terminated by the user

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	10

Expected Sequence 1.5 (GET INKEY, SMS default alphabet for character set, Unpacked 8 bit data for Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.5.1	[characters from SMS default alphabet, no help info available]
4	ME → USER	Display "Enter "q""	Text string coding in unpacked format
5	USER → ME	Enter the input "q" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.5.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 1.5.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INKEY
	Command qualifier:	SMS default alphabet, no help information available
Device identities		
	Source device:	SIM
	Destination device:	ME
Text String		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"Enter "q""

Coding:

BER-TLV:	D0	15	81	03	01	22	01	82	02	81	82	8D
	0A	04	45	6E	74	65	72	20	22	71	22	

TERMINAL RESPONSE: GET INKEY 1.5.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INKEY
	Command qualifier:	SMS default alphabet, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Text String		

Data coding scheme: unpacked, 8 bit data
Text: "q"

Coding:

BER-TLV:	81	03	01	22	01	82	02	82	81	83	01	00
	8D	02	04	71								

Expected Sequence 1.6 (GET INKEY, Max length for the Text String, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 1.6.1	[digits only, no help info available]
4	ME → USER	Display "Enter "x". This command instructs the ME to display text, and to expect the user to enter a single character. Any response entered by the user shall be passed t"	160 characters Text string coding in unpacked format
5	USER → ME	Enter the input "x" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 1.6.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: SMS default alphabet, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Enter "x". This command instructs the ME to display text, and to expect the user to enter a single character. Any response entered by the user shall be passed t"

Coding:

BER-TLV:	D0	81	AD	81	03	01	22	01	82	02	81	82
	8D	81	A1	04	45	6E	74	65	72	20	22	78
	22	2E	20	54	68	69	73	20	63	6F	6D	6D
	61	6E	64	20	69	6E	73	74	72	75	63	74
	73	20	74	68	65	20	4D	45	20	74	6F	20
	64	69	73	70	6C	61	79	20	74	65	78	74
	2C	20	61	6E	64	20	74	6F	20	65	78	70
	65	63	74	20	74	68	65	20	75	73	65	72
	20	74	6F	20	65	6E	74	65	72	20	61	20
	73	69	6E	67	6C	65	20	63	68	61	72	61
	63	74	65	72	2E	20	41	6E	79	20	72	65
	73	70	6F	6E	73	65	20	65	6E	74	65	72
	65	64	20	62	79	20	74	68	65	20	75	73
	65	72	20	73	68	61	6C	6C	20	62	65	20
	70	61	73	73	65	64	20	74				

TERMINAL RESPONSE: GET INKEY 1.6.1

Logically:

> Command details
> > Command number: 1
> > Command type: GET INKEY
> > Command qualifier: SMS default alphabet, no help information available
> Device identities
> > Source device: ME
> > Destination device: SIM
> Result
> > General Result: Command performed successfully
> Text String
> > Data coding scheme: unpacked, 8 bit data
> > Text: "x"

Coding:

BER-TLV:	81	03	01	22	01	82	02	82	81	83	01	00
	8D	02	04	78								

27.22.4.2.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.4.2.2   GET INKEY (No response from User)

27.22.4.2.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.2.2.2   Conformance requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

27.22.4.2.2.3   Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns a "No response from user" result value in the TERMINAL RESPONSE command send to the SIM.

27.22.4.2.2.4   Method of test

27.22.4.2.2.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

ME Manufacturers shall set the "no response from user" period of time.

The SIM simulator shall be set to that period of time.

27.22.4.2.2.4.2 Procedure

Expected Sequence 2.1 (GET INKEY, no response from the user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 2.1.1	[digits only, no help information available]
4	ME → USER	Display "<TIME-OUT>"	
5	USER	Waiting and no completion	Text string coding in unpacked format
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 2.1.1	[No response from user] within 5 s after the end of that defined period of time
7	USER	Check the delay of TERMINAL RESPONSE is reasonable or not	

PROACTIVE COMMAND: GET INKEY 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
            Text: "<TIME-OUT>"

Coding:

BER-TLV:	D0	16	81	03	01	22	00	82	02	81	82	8D
	0B	04	3C	54	49	4D	45	2D	4F	55	54	3E

TERMINAL RESPONSE: GET INKEY 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: No response from user

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	12

27.22.4.2.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.2.3   GET INKEY (UCS2 format display)

27.22.4.2.3.1   Definition and applicability

See clause 3.2.2.

27.22.4.2.3.2   Conformance requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

Additionally, the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in the following technical specifications: ISO/IEC 10646 [17].

27.22.4.2.3.3   Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.3.4   Method of test

27.22.4.2.3.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.2.3.4.2   Procedure

Expected Sequence 3.1 (GET INKEY, Text String coding in UCS2 Alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 3.1.1	[Digits only, no help information available]
4	ME → USER	Display " ЗДРАВСТВУЙТЕ "	Text string "Hello" in Russian coding in 16 bits UCS2 alphabet format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 3.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String

Data coding scheme:　　　16 bit data UCS2 alphabet format
Text:　　　　　　　　　　" ЗДРАВСТВУЙТЕ "

Coding:

BER-TLV:	D0	24	81	03	01	22	00	82	02	81	82	8D
	19	08	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15										

TERMINAL RESPONSE: GET INKEY 3.1.1

Logically:

Command details
　　　Command number:　　　1
　　　Command type:　　　　GET INKEY
　　　Command qualifier:　　digits (0-9, *, # and +) only, no help information available
Device identities
　　　Source device:　　　　ME
　　　Destination device:　　SIM
Result
　　　General Result:　　　　Command performed successfully
Text String:
　　　Data coding scheme:　　unpacked, 8 bit data
　　　Text:　　　　　　　　　　"+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 3.2 (GET INKEY, max length for the Text String coding in UCS2 Alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 3.2.1	[digits only, no help information available]
4	ME → USER	Display "ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕЗДРАВСТВУЙ"	Text string length 70 characters, coding in 16 bits UCS2 alphabet format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 3.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 3.2.1

Logically:

Command details
　　　Command number:　　　1
　　　Command type:　　　　GET INKEY
　　　Command qualifier:　　digits (0-9, *, # and +) only, no help information available
Device identities
　　　Source device:　　　　SIM

          Destination device: ME
     Text String
          Data coding scheme: 16 bit data UCS2 alphabet format
          Text: "ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ
                      ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ
                      ЗДРАВСТВУЙТЕЗДРАВСТВУЙ"

Coding:

BER-TLV:	D0	81	99	81	03	01	22	00	82	02	81	82
	8D	81	8D	08	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19

TERMINAL RESPONSE: GET INKEY 3.2.1

Logically:

    Command details
          Command number: 1
          Command type: GET INKEY
          Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
          Source device: ME
          Destination device: SIM
    Result
          General Result: Command performed successfully
    Text String:
          Data coding scheme: unpacked, 8 bit data
          Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

27.22.4.2.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1 to 3.2.

27.22.4.2.4 GET INKEY (UCS2 format of entry)

27.22.4.2.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.4.2 Conformance requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

Additionally, the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in the following technical specifications: ISO/IEC 10646 [17].

27.22.4.2.4.3 Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.4.4 Method of test

27.22.4.2.4.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.2.4.4.2 Procedure

Expected Sequence 4.1 (GET INKEY, characters from UCS2 alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 4.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 4.1.1	[characters from UCS2 alphabet, no help information available]
4	ME → USER	Display "Enter"	
5	USER → ME	Enter the input "Д" and completion	Text string coding in unpacked format Russian character, coding in UCS2 format
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 4.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INKEY 4.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: characters from UCS2 alphabet, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Enter"

Coding:

BER-TLV:	D0	11	81	03	01	22	03	82	02	81	82	8D
	06	04	45	6E	74	65	72					

TERMINAL RESPONSE: GET INKEY 4.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: characters from UCS2 alphabet, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text String:
        Data coding scheme: 16 bit data UCS2 alphabet format
        Text: "Д"

Coding:

BER-TLV:	81	03	01	22	03	82	02	82	81	83	01	00
	8D	03	08	04	14							

27.22.4.2.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 4.1.

27.22.4.2.5 GET INKEY ("Yes/No" Response)

27.22.4.2.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.5.2 Conformance requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2 and clause 12.15.3.

27.22.4.2.5.3 Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.5.4 Method of test

27.22.4.2.5.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.2.5.4.2   Procedure

Expected Sequence 5.1(GET INKEY, "Yes/No" Response for the input, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 5.1.1	["Yes/No" Response, no help information available]
4	ME → USER	Display "Enter YES "	Text string coding in unpacked format
5	USER → ME	Choice "Yes" and Completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 5.1.1	[command performed successfully] Check if it is in accordance with the user choice (value '01' in the Text String data object)
7	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 5.1.2	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: GET INKEY 5.1.2	["Yes/No" Response, no help information available]
10	ME → USER	Display "Enter NO:"	Text string coding in unpacked format
11	USER → ME	Choice "No" and Completion	
12	ME → SIM	TERMINAL RESPONSE: GET INKEY 5.1.2	[command performed successfully] Check if it is in accordance with the user choice (value '00' in the Text String data object)

PROACTIVE COMMAND: GET INKEY 5.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: "Yes/No" Response, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Enter YES "

Coding:

BER-TLV:	D0	15	81	03	01	22	04	82	02	81	82	8D
	0A	04	45	6E	74	65	72	20	59	45	43	

TERMINAL RESPONSE: GET INKEY 5.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: "Yes/No" Response, no help information available
    Device identities
        Source device: ME
        Destination device: SIM

Result
    General Result: Command performed successfully
Text String:
    Data coding scheme: unpacked, 8 bit data
    Text: 01 (hex)

Coding:

BER-TLV:	81	03	01	22	04	82	02	82	81	83	01	00
	8D	02	04	01								

PROACTIVE COMMAND: GET INKEY 5.1.2:

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: "Yes/No" Response, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter NO"

Coding:

BER-TLV:	D0	14	81	03	01	22	04	82	02	81	82	8D
	09	04	45	6E	74	65	72	20	4E	4F		

TERMINAL RESPONSE: GET INKEY 5.1.2

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: "Yes/No" Response, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text String:
    Data coding scheme: unpacked, 8 bit data
    Text: 00 (hex)

Coding:

BER-TLV:	81	03	01	22	04	82	02	82	81	83	01	00
	8D	02	04	00								

27.22.4.2.5.5   Test requirement

The ME shall operate in the manner defined in expected sequence 5.1.

27.22.4.2.6   GET INKEY (display of Icon)

27.22.4.2.6.1   Definition and applicability

See clause 3.2.2.

27.22.4.2.6.2   Conformance requirement

The ME shall support the GET INKEY command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.31.

27.22.4.2.6.3   Test purpose

To verify that the ME displays the Icon contained in the GET INKEY proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.6.4   Method of test

27.22.4.2.6.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME screen shall be in its normal stand-by display.

27.22.4.2.6.4.2   Procedure

Expected Sequence 6.1A (GET INKEY, Basic icon, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.1.1	[BASIC-ICON self-explanatory for the Text string]
4	ME → USER	Display the BASIC-ICON for the prompt	
			Text string coding in unpacked format
5	USER → ME	Enter "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.1.1A	Command performed successfully]

PROACTIVE COMMAND: GET INKEY 6.1.1

Logically:

```
    Command details
          Command number:          1
          Command type:            GET INKEY
          Command qualifier:       digits (0-9, *, # and +) only, no help information available
    Device identities
          Source device:           SIM
          Destination device:      ME
    Text String
          Data coding scheme:      unpacked, 8 bit data
          Text:                    "<NO-ICON>"
    Icon Identifier
```

Icon qualifier:	self-explanatory		
Icon identifier:	1 (number of record in EF$_{Img}$)		

Coding:

BER-TLV:	D0	19	81	03	01	22	00	82	02	81	82	8D
	0A	04	3C	4E	4F	2D	49	43	4F	4E	3E	1E
	02	00	01									

TERMINAL RESPONSE: GET INKEY 6.1.1A

Logically:

Command details		
Command number:	1	
Command type:	GET INKEY	
Command qualifier:	digits (0-9, *, # and +) only, no help information available	
Device identities		
Source device:	ME	
Destination device:	SIM	
Result		
General Result:	Command performed successfully	
Text String		
Data coding scheme:	unpacked, 8 bit data	
Text:	"+"	

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.1B (GET INKEY, Basic icon, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.1.1	[BASIC-ICON self-explanatory for the Text string]
4	ME → USER	Display "<NO-ICON>" for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.1.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INKEY 6.1.1B

Logically:

Command details		
Command number:	1	
Command type:	GET INKEY	
Command qualifier:	digits (0-9, *, # and +) only, no help information available	
Device identities		
Source device:	ME	
Destination device:	SIM	
Result		
General Result:	Command performed successfully but requested icon could not be displayed	

Text String:

    Data coding scheme: unpacked, 8 bit data

    Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.2A (GET INKEY, Basic icon, non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.2.1	[BASIC-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<BASIC-ICON>" and Display the BASIC-ICON for the prompt	Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.2.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INKEY 6.2.1

Logically:

    Command details

        Command number: 1

        Command type: GET INKEY

        Command qualifier: digits (0-9, *, # and +) only, no help information available

    Device identities

        Source device: SIM

        Destination device: ME

    Text String

        Data coding scheme: unpacked, 8 bit data

        Text: "<BASIC-ICON>"

    Icon Identifier

        Icon qualifier: not self-explanatory

        Icon identifier: 1 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	1C	81	03	01	22	00	82	02	81	82	8D
	0D	04	3C	42	41	53	49	43	2D	49	43	4F
	4E	3E	1E	02	01	01						

TERMINAL RESPONSE: GET INKEY 6.2.1A

Logically:

    Command details

        Command number: 1

        Command type: GET INKEY

        Command qualifier: digits (0-9, *, # and +) only, no help information available

    Device identities

	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Text String:		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.2B (GET INKEY, Basic icon, non self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.2.1	[BASIC-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<BASIC-ICON>" for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.2.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INKEY 6.2.1B

Logically:

Command details		
	Command number:	1
	Command type:	GET INKEY
	Command qualifier:	digits (0-9, *, # and +) only, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully but requested icon could not be displayed
Text String:		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.3A (GET INKEY, Colour icon, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.3.1	[COLOUR-ICON self-explanatory for the Text string]
4	ME → USER	Display the COLOUR-ICON for the prompt	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.3.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INKEY 6.3.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "<NO-ICON>"
    Icon Identifier
        Icon qualifier: self-explanatory
        Icon identifier: 2 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	19	81	03	01	22	00	82	02	81	82	8D
	0A	04	3C	4E	4F	2D	49	43	4F	4E	3E	1E
	02	00	02									

TERMINAL RESPONSE: GET INKEY 6.3.1A

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text String:
        Data coding scheme: unpacked, 8 bit data
        Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.3B (GET INKEY, Colour icon, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.3.1	[COLOUR-ICON self-explanatory for the Text string]
4	ME → USER	Display "<NO-ICON>"for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.3.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INKEY 6.3.1B

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed
    Text String:
        Data coding scheme: unpacked, 8 bit data
        Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.4A (GET INKEY, Colour icon, non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.4.1	[COLOUR-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<COLOUR-ICON>" and Display the COLOUR-ICON for the prompt	
5	USER → ME	Enter the input "+" and completion	Text string coding in unpacked format
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.4.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INKEY 6.4.1

Logically:

 Command details
  Command number: 1
  Command type: GET INKEY
  Command qualifier: digits (0-9, *, # and +) only, no help information available
 Device identities
  Source device: SIM
  Destination device: ME
 Text String
  Data coding scheme: unpacked, 8 bit data
  Text: "<COLOUR-ICON>"
 Icon Identifier
  Icon qualifier: not self-explanatory
  Icon identifier: 2 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	1D	81	03	01	22	00	82	02	81	82	8D
	0E	04	3C	43	4F	4C	4F	55	52	2D	49	43
	4F	4E	3E	1E	02	01	02					

TERMINAL RESPONSE: GET INKEY 6.4.1A

Logically:

 Command details
  Command number: 1
  Command type: GET INKEY
  Command qualifier: digits (0-9, *, # and +) only, no help information available
 Device identities
  Source device: ME
  Destination device: SIM
 Result
  General Result: Command performed successfully
 Text String:
  Data coding scheme: unpacked, 8 bit data
  Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	00

8D	02	04	2B								

Expected Sequence 6.4B (GET INKEY, Colour icon, non self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 6.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 6.4.1	[COLOUR-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<COLOUR-ICON>" for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 6.4.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INKEY 6.4.1B

Logically:

> Command details
>> Command number: 1
>> Command type: GET INKEY
>> Command qualifier: digits (0-9, *, # and +) only, no help information available
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully but requested icon could not be displayed
> Text String:
>> Data coding scheme: unpacked, 8 bit data
>> Text: "+"

Coding:

BER-TLV:	81	03	01	22	00	82	02	82	81	83	01	04
	8D	02	04	2B								

27.22.4.2.6.5   Test requirement

The ME shall operate in the manner defined in expected sequence 6.1A to 6.4B.

27.22.4.2.7   GET INKEY (Help Information)

27.22.4.2.7.1   Definition and applicability

See clause 3.2.2.

27.22.4.2.7.2   Conformance requirement

The ME shall support the GET INKEY command as defined in the following technical specifications :

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.31.

27.22.4.2.7.3 Test purpose

To verify that the ME displays the text contained in the GET INKEY proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.2.7.4 Method of test

27.22.4.2.7.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.2.7.4.2 Procedure

Expected Sequence 7.1 (GET INKEY, help information available)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 7.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INKEY 7.1.1	[digits only, help information available]
4	ME → USER	Display "Enter "+""	
			Text string coding in unpacked format
5	USER → ME	Press "help" key	
6	ME → SIM	TERMINAL RESPONSE: GET INKEY 7.1.1	[help info required]
7	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 7.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 7.1.1	
10	ME → USER	Display "Help information"	Text string coded in unpacked format
11	USER → ME	Clear Message	
12	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 7.1.1	
13	SIM → ME	PROACTIVE COMMAND PENDING: GET INKEY 7.1.2	
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: GET INKEY 7.1.2	[digits only, help information available]
16	ME → USER	Display "Enter "+""	
			Repetition of get inkey
17	USER → ME	Enter the input "+" and completion	
18	ME → SIM	TERMINAL RESPONSE: GET INKEY 7.1.2	[Command performed successfully]

PROACTIVE COMMAND: GET INKEY 7.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INKEY
        Command qualifier: digits (0-9, *, # and +) only, help information available
    Device identities
        Source device: SIM
        Destination device: ME

Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter "+""

Coding:

BER-TLV:	D0	15	81	03	01	22	80	82	02	81	82	8D
	0A	04	45	6E	74	65	72	20	22	2B	22	

TERMINAL RESPONSE: GET INKEY 7.1.1

Logically:

Command details
    Command number: 1
    Command type: GET INKEY
    Command qualifier: digits (0-9, *, # and +) only, help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Help information required by the user

Coding:

BER-TLV:	81	03	01	22	80	82	02	82	81	83	01	13

PROACTIVE COMMAND : DISPLAY TEXT 7.1.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: SIM
    Destination device: Display
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Help information"

Coding:

BER-TLV:	D0	1C	81	03	01	21	80	82	02	81	02	8D
	11	04	48	65	6C	70	20	69	6E	66	6F	72
	6D	61	74	69	6F	6E						

TERMINAL RESPONSE : DISPLAY TEXT 7.1.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result

General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

PROACTIVE COMMAND: GET INKEY 7.1.2

Logically:

```
Command details
      Command number:        1
      Command type:          GET INKEY
      Command qualifier:     digits (0-9, *, # and +) only, help information available
Device identities
      Source device:         SIM
      Destination device:    ME
Text String
      Data coding scheme:    unpacked, 8 bit data
      Text:                  "Enter "+""
```

Coding:

BER-TLV:	D0	15	81	03	01	22	80	82	02	81	82	8D
	0A	04	45	6E	74	65	72	20	22	2B	22	

TERMINAL RESPONSE: GET INKEY 7.1.2

Logically:

```
Command details
      Command number:        1
      Command type:          GET INKEY
      Command qualifier:     digits (0-9, *, # and +) only, help information available
Device identities
      Source device:         ME
      Destination device:    SIM
Result
      General Result:        Command performed successfully
Text String:
      Data coding scheme:    unpacked, 8 bit data
      Text:                  "+"
```

Coding:

BER-TLV:	81	03	01	22	80	82	02	82	81	83	01	00
	8D	02	04	2B								

27.22.4.2.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 7.1.

27.22.4.3. GET INPUT

27.22.4.3.1 GET INPUT (normal)

27.22.4.3.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.1.2 Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

27.22.4.3.1.3 Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.3.1.4 Method of test

27.22.4.3.1.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.3.1.4.2 Procedure

Expected Sequence 1.1 (GET INPUT, digits only,   SMS default alphabet, ME to echo text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.1.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help info available]
4	ME → USER	Display "Enter 12345"	Range of expected length is 5-5 Text string coding in unpacked format
5	USER → ME	Enter the input "12345" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.1.1

Logically:

> Command details
> > Command number: 1
> > Command type: GET INPUT
> > Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
> Device identities
> > Source device: SIM
> > Destination device: ME
> Text String
> > Data coding scheme: unpacked, 8 bit data
> > Text: "Enter 12345"
> Response length
> > Minimum length: 5
> > Maximum length: 5

Coding:

BER-TLV:	D0	1B	81	03	01	23	00	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	31	32	33	34
	35	91	02	05	05							

TERMINAL RESPONSE: GET INPUT 1.1.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INPUT
	Command qualifier:	digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Text string		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"12345"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	06	04	31	32	33	34	35				

Expected Sequence 1.2 (GET INPUT, digits only, SMS default alphabet, ME to echo text, packing SMS Point-to-point required by ME)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.2.1	[digits only, SMS default alphabet, ME to echo text, packing required, no help information available]
4	ME → USER	Display "Enter 67*#+""	Range of expected length is 5-5 Text string coding in packed format
5	USER → ME	Enter the input "67*#+"" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.2.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INPUT
	Command qualifier:	digits (0-9, *, # and +) only, SMS default alphabet, input in packed SMS format, ME to echo text, no help information available
Device identities		
	Source device:	SIM
	Destination device:	ME
Text String		
	Data coding scheme:	SMS default alphabet
	Text:	"Enter 67*#+""
Response length		

Minimum length: 5
Maximum length: 5

Coding:

BER-TLV:	D0	1A	81	03	01	23	08	82	02	81	82	8D
	0B	00	45	37	BD	2C	07	D9	6E	AA	D1	0A
	91	02	05	05								

TERMINAL RESPONSE: GET INPUT 1.2.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in packed SMS format, ME
                             to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: packed SMS format
    Text: "67*#+""

Coding:

BER-TLV:	81	03	01	23	08	82	02	82	81	83	01	00
	8D	06	00	B6	9B	6A	B4	02				

Expected Sequence 1.3 (GET INPUT, character set, SMS Default Alphabet, ME to echo text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.3.1	[character set, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter AbCdE"	Range of expected length is 5-5 Text string coding in unpacked format
5	USER → ME	Enter the input "AbCdE" and completion	The ME may echo the input
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.3.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.3.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: Character set, SMS default alphabet, input in unpacked format, ME to echo text, no
                             help information available
Device identities
    Source device: SIM
    Destination device: ME

Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter AbCdE"
Response length
    Minimum length: 5
    Maximum length: 5

Coding:

BER-TLV:	D0	1B	81	03	01	23	01	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	41	62	43	64
	45	91	02	05	05							

TERMINAL RESPONSE: GET INPUT 1.3.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: Character set, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "AbCdE"

Coding:

BER-TLV:	81	03	01	23	01	82	02	82	81	83	01	00
	8D	06	04	41	62	43	64	45				

Expected Sequence 1.4 (GET INPUT, digits only, SMS default alphabet, ME to hide text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.4.1	[digits only, SMS default alphabet, ME to hide text, packing not required, no help information available]
4	ME → USER	Display "Password 1<SEND>2345678"	Range of expected length is 4-8 Text string coding in unpacked format
5	USER → ME	Enter the input "2345678" and completion	User's input not to be revealed at any time, optionally indication of key entries such as by displaying "*"
6	ME → USER	Input not revealed	optionally indication of key entries such as by displaying "*"
7	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.4.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.4.1

Logically:

Command details

	Command number:	1
	Command type:	GET INPUT
	Command qualifier:	digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to hide text, no help information available
Device identities		
	Source device:	SIM
	Destination device:	ME
Text String		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"Password 1<SEND>2345678"
Response length		
	Minimum length:	4
	Maximum length:	8

Coding:

BER-TLV:	D0	27	81	03	01	23	04	82	02	81	82	8D
	18	04	50	61	73	73	77	6F	72	64	20	31
	3C	53	45	4E	44	3E	32	33	34	35	36	37
	38	91	02	04	08							

TERMINAL RESPONSE: GET INPUT 1.4.1

Logically:

Command details		
	Command number:	1
	Command type:	GET INPUT
	Command qualifier:	digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to hide text, no help information available
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Text string		
	Data coding scheme:	unpacked, 8 bit data
	Text:	"2345678"

Coding:

BER-TLV:	81	03	01	23	04	82	02	82	81	83	01	00
	8D	08	04	32	33	34	35	36	37	38		

Expected Sequence 1.5 (GET INPUT, digits only, SMS default alphabet, ME to echo text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.5.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter 1..9,0..9,0(1)"	Range of expected length is 1-20 Text string coding in unpacked format
5	USER → ME	Completion without input	
6	ME → USER	The ME MMI takes action to manage the entry of correct numbers of characters.	
7	USER → ME	Enter "12345678901234567890" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.5.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.5.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter 1..9,0..9,0(1)"
Response length
    Minimum length: 1
    Maximum length: 20

Coding:

BER-TLV:	D0	24	81	03	01	23	00	82	02	81	82	8D
	15	04	45	6E	74	65	72	20	31	2E	2E	39
	2C	30	2E	2E	39	2C	30	28	31	29	91	02
	01	14										

TERMINAL RESPONSE: GET INPUT 1.5.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result

ETSI

General Result: Command performed successfully
Text string
Data coding scheme: unpacked, 8 bit data
Text: "12345678901234567890"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	15	04	31	32	33	34	35	36	37	38	39
	30	31	32	33	34	35	36	37	38	39	30	

Expected Sequence 1.6 (GET INPUT, backwards move)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.6.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "<GO-BACKWARDS>"	Range of expected length is 0-8 Text string coding in unpacked format
5	USER → ME	Backwards move MMI action	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.6.1	[backward move in the proactive SIM session requested by the user]

PROACTIVE COMMAND: GET INPUT 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                               echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "<GO-BACKWARDS>"
    Response length
        Minimum length: 0
        Maximum length: 8

Coding:

BER-TLV:	D0	1E	81	03	01	23	00	82	02	81	82	8D
	0F	04	3C	47	4F	2D	42	41	43	4B	57	41
	52	44	53	3E	91	02	00	08				

TERMINAL RESPONSE: GET INPUT 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                               echo text, no help information available
    Device identities

Source device:	ME
Destination device:	SIM

Result

General Result:	backward move in the proactive SIM session requested by the user

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	11

Expected Sequence 1.7 (GET INPUT, abort)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.7.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.7.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "<ABORT>"	Range if expected length is 0-8 Text string coding in unpacked format
5	USER → ME	Terminate the Proactive SIM session MMI action	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.7.1	[Proactive SIM session terminated by the user]

PROACTIVE COMMAND: GET INPUT 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "<ABORT>"
    Response length
        Minimum length: 0
        Maximum length: 8

Coding:

BER-TLV:	D0	17	81	03	01	23	00	82	02	81	82	8D
	08	04	3C	41	42	4F	52	54	3E	91	02	00
	08											

TERMINAL RESPONSE: GET INPUT 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: ME

		Destination device:	SIM
Result			
		General Result:	Proactive SIM session terminated by the user

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	10

Expected Sequence 1.8 (GET INPUT, digits only, SMS default alphabet, ME to echo text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.8.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "***1111111111###***2222222 222###***3333333333###***44 44444444###***5555555555### #***6666666666###***7777777 777###***8888888888###***99 99999999###***0000000000## #"	Range of length expected is 160-160 Text string coding in unpacked format
5	USER → ME	Enter the input "***1111111111###***2222222 222###***3333333333###***44 44444444###***5555555555### #***6666666666###***7777777 777###***8888888888###***99 99999999###***0000000000## #" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.8.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.8.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME
                               to echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "***1111111111###***2222222222###***3333333333###***4444444444###***
                               5555555555###***6666666666###***7777777777###***8888888888###***9999
                               999999###***0000000000###"
    Response length
        Minimum length: 160
        Maximum length: 160

Coding:

BER-TLV:	D0	81	B1	81	03	01	23	00	82	02	81	82
	8D	81	A1	04	2A	2A	2A	31	31	31	31	
	31	31	31	31	31	23	23	23	2A	2A	2A	32
	32	32	32	32	32	32	32	32	32	23	23	23
	2A	2A	2A	33	33	33	33	33	33	33	33	33
	33	23	23	23	2A	2A	2A	34	34	34	34	34
	34	34	34	34	34	23	23	23	2A	2A	2A	35
	35	35	35	35	35	35	35	35	35	23	23	23
	2A	2A	2A	36	36	36	36	36	36	36	36	36
	36	23	23	23	2A	2A	2A	37	37	37	37	37
	37	37	37	37	37	23	23	23	2A	2A	2A	38
	38	38	38	38	38	38	38	38	38	23	23	23
	2A	2A	2A	39	39	39	39	39	39	39	39	39
	39	23	23	23	2A	2A	2A	30	30	30	30	30
	30	30	30	30	30	23	23	23	91	02	A0	A0

TERMINAL RESPONSE: GET INPUT 1.8.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "***1111111111###***2222222222###***
    3333333333###***4444444444###
    5555555555###6666666666###
    7777777777###8888888888###
    9999999999###0000000000###"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	81	A1	04	2A	2A	2A	31	31	31	31	
	31	31	31	31	31	23	23	23	2A	2A	2A	32
	32	32	32	32	32	32	32	32	32	23	23	23
	2A	2A	2A	33	33	33	33	33	33	33	33	33
	33	23	23	23	2A	2A	2A	34	34	34	34	34
	34	34	34	34	34	23	23	23	2A	2A	2A	35
	35	35	35	35	35	35	35	35	35	23	23	23
	2A	2A	2A	36	36	36	36	36	36	36	36	36
	36	23	23	23	2A	2A	2A	37	37	37	37	37
	37	37	37	37	37	23	23	23	2A	2A	2A	38
	38	38	38	38	38	38	38	38	38	23	23	23
	2A	2A	2A	39	39	39	39	39	39	39	39	39
	39	23	23	23	2A	2A	2A	30	30	30	30	30
	30	30	30	30	30	23	23	23				

Expected Sequence 1.9 (GET INPUT, digits only, SMS default alphabet, ME to echo text, ME supporting 8 bit data Message)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.9.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.9.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "<SEND>"	Range of expected length is 0-1 Text string coding in unpacked format
5	USER → ME	Completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.9.1A Or TERMINAL RESPONSE: GET INPUT 1.9.1B	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "<SEND>"
    Response length
        Minimum length: 0
        Maximum length: 1

Coding:

BER-TLV:	D0	16	81	03	01	23	00	82	02	81	82	8D
	07	04	3C	53	45	4E	44	3E	91	02	00	01

TERMINAL RESPONSE: GET INPUT 1.9.1A

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: empty string

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	01	04									

TERMINAL RESPONSE: GET INPUT 1.9.1B

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Contents: Null data object

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	00										

Expected Sequence 1.10 (GET INPUT, null length for the text string, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 1.10.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 1.10.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help info available]
4	ME → USER	Request for input	Range of expected length is 1-5 Null Text string
5	USER → ME	Enter the input "12345" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 1.10.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 1.10.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text string
    Text: length null (00).
Response length
    Minimum length: 1
    Maximum length: 5

Coding:

BER-TLV:	D0	0F	81	03	01	23	00	82	02	81	82	8D
	00	91	02	01	05							

TERMINAL RESPONSE: GET INPUT 1.10.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "12345"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	06	04	31	32	33	34	35				

27.22.4.3.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.10.

27.22.4.3.2 GET INPUT (No response from User)

27.22.4.3.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.2.2 Conformance requirement

The ME shall support the GET INPUT command as defined in the following technical specifications :

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

27.22.4.3.2.3 Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns a "No response from user" result value in the TERMINAL RESPONSE command send to the SIM.

27.22.4.3.2.4 Method of test

27.22.4.3.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

ME Manufacturers shall set the "no response from user" period of time.

The SIM simulator shall be set to that period of time.

27.22.4.3.2.4.2   Procedure

Expected Sequence 2.1 (GET INPUT, no response from the user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 2.1	[digits only, SMS default alphabet ME to echo text, packing not required, no help information available]
4	ME → USER	Display "<TIME-OUT>"	Range of expected length is 0-10 Text string coding in unpacked format
5	USER	Waiting and no completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 2.1.1	[No response from user] within 5 s after the end of that defined period of time

PROACTIVE COMMAND: GET INPUT 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                    echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "<TIME-OUT>"
    Response length
        Minimum length: 0
        Maximum length: 10

Coding:

BER-TLV:	D0	1A	81	03	01	23	00	82	02	81	82	8D
	0B	04	3C	54	49	4D	45	2D	4F	55	54	3E
	91	02	00	0A								

TERMINAL RESPONSE: GET INPUT 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                    echo text, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result

General Result: No response from user

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	12

27.22.4.3.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.3.3 GET INPUT (UCS2 format display)

27.22.4.3.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.3.2 Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

Additionally the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in the following technical specifications: ISO/IEC 10646 [17].

27.22.4.3.3.3 Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.3.3.4 Method of test

27.22.4.3.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.3.3.4.2 Procedure

Expected Sequence 3.1 (GET INPUT, text string coding in UCS2, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 3.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display " ЗДРАВСТВУЙТЕ "	Range of expected length is 5-5 Text string "Hello" in Russian coding in 16 bits UCS2 alphabet format
5	USER → ME	Enter the input "HELLO" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 3.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 3.1.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: alphabet set, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: 16 bit data UCS2 alphabet format
    Text: " ЗДРАВСТВУЙТЕ "
Response length
    Minimum length: 5
    Maximum length: 5

Coding:

BER-TLV:	D0	28	81	03	01	23	01	82	02	81	82	8D
	19	08	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15	91	02	05	05						

TERMINAL RESPONSE: GET INPUT 3.1.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: alphabet set, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "HELLO"

Coding:

BER-TLV:	81	03	01	23	01	82	02	82	81	83	01	00
	8D	06	04	48	45	4C	4C	4F				

Expected Sequence 3.2 (GET INPUT, max length for the text string coding in UCS2, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 3.2.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВУЙ"	Range of expected length is 5-5 Text string length 70 characters, coding in 16 bits UCS2 alphabet format
5	USER → ME	Enter the input "HELLO" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 3.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 3.2.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: alphabet set, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: 16 bit data UCS2 alphabet format
        Text: "ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВУЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВУЙ"
    Response length
        Minimum length: 5
        Maximum length: 5

Coding:

BER-TLV:	D0	81	9D	81	03	01	23	01	82	02	81	82
	8D	81	8D	08	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	91	02	05	05								

TERMINAL RESPONSE: GET INPUT 3.2.1

Logically:

Command details
  Command number: 1
  Command type: GET INPUT
  Command qualifier: alphabet set, SMS default alphabet, input in unpacked format, ME to echo text, no
                         help information available
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Command performed successfully
Text string
  Data coding scheme: unpacked, 8 bit data
  Text: "HELLO"

Coding:

BER-TLV:	81	03	01	23	01	82	02	82	81	83	01	00
	8D	06	04	48	45	4C	4C	4F				

27.22.4.3.3.5   Test requirement

The ME shall operate in the manner defined in expected sequences 3.1 to 3.2.

27.22.4.3.4   GET INPUT (UCS2 format of entry)

27.22.4.3.4.1   Definition and applicability

See clause 3.2.2.

27.22.4.3.4.2   Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

Additionally the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in ISO/IEC 10646 [17].

27.22.4.3.4.3   Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.3.4.4   Method of test

27.22.4.3.4.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.3.4.4.2   Procedure

Expected Sequence 4.1 (GET INPUT, character set from UCS2 alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 4.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 4.1.1	[character set, UCS2 alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter Hello"	Range of expected length is 12-12 Text string coding in unpacked format
5	USER → ME	Enter the input "ЗДРАВСТВУЙТЕ " and completion	"Hello" in Russian, coding in UCS2 format
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 4.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 4.1.1

Logically:

> Command details
>> Command number: 1
>> Command type: GET INPUT
>> Command qualifier: character set, UCS2 alphabet, input in unpacked format, ME to echo text, no help information available
> Device identities
>> Source device: SIM
>> Destination device: ME
> Text String
>> Data coding scheme: unpacked, 8 bit data
>> Text: "Enter Hello"
> Response length
>> Minimum length: 12
>> Maximum length: 12

Coding:

BER-TLV:	D0	1B	81	03	01	23	03	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	48	65	6C	6C
	6F	91	02	0C	0C							

TERMINAL RESPONSE: GET INPUT 4.1.1

Logically:

> Command details
>> Command number: 1
>> Command type: GET INPUT
>> Command qualifier: character set, UCS2 alphabet, input in unpacked format, ME to echo text, no help information available
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Text string
>> Data coding scheme: UCS2
>> Text: "ЗДРАВСТВУЙТЕ"

Coding:

BER-TLV:	81	03	01	23	03	82	02	82	81	83	01	00
	8D	19	08	04	17	04	14	04	20	04	10	04
	12	04	21	04	22	04	12	04	23	04	19	04
	22	04	15									

Expected Sequence 4.2 (GET INPUT, character set from UCS2 alphabet, Max length for the input, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 4.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 4.2.1	[character set, UCS2 alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter Hello"	Range of expected length is no limit Text string coding in unpacked format
5	USER → ME	Enter the input "ЗДРАВСТВУЙТЕЗДРАВСТВ УЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВ УЙТЕ ЗДРАВСТВУЙТЕЗДРАВСТВУЙ and completion	Input length 70 characters, coding in UCS2 format
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 4.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 4.2.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: character set, UCS2 alphabet, input in unpacked format, ME to echo text, no help
        information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter Hello"
Response length
    Minimum length: 5
    Maximum length: No maximum length requirement

Coding:

BER-TLV:	D0	1B	81	03	01	23	03	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	48	65	6C	6C
	6F	91	02	05	FF							

TERMINAL RESPONSE: GET INPUT 4.2.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: character set, UCS2 alphabet, input in unpacked format, ME to echo text, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
        Data coding scheme: UCS2
        Text: "ЗДРАВСТВУЙТЕ…ЗДРАВСТВУЙ" (70 chars)

Coding:

BER-TLV:	81	03	01	23	03	82	02	82	81	83	01	00
8D	81	8D	08	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19
04	22	04	15	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19
04	22	04	15	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19
04	22	04	15	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19
04	22	04	15	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19
04	22	04	15	04	17	04	14	04	20	04	10
04	12	04	21	04	22	04	12	04	23	04	19

27.22.4.3.4.5 Test requirement

The ME shall operate in the manner defined in expected sequences 4.1 to 4.2.

27.22.4.3.5 GET INPUT (default text)

27.22.4.3.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.5.2 Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

27.22.4.3.5.3 Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.3.5.4 Method of test

27.22.4.3.5.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.3.5.4.2   Procedure

Expected Sequence 5.1(GET INPUT, default text for the input, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 5.1.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter 12345" Display "12345"	Range of expected length is 5-5 Text string coding in unpacked format Default text coding in unpacked format
5	USER → ME	Completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 5.1.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 5.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                               echo text, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Enter 12345"
    Response length
        Minimum length: 5
        Maximum length: 5
    Default Text
        Data coding scheme: unpacked, 8 bit data
        Text: "12345"

Coding:

BER-TLV:	D0	23	81	03	01	23	00	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	31	32	33	34
	35	91	02	05	05	17	06	04	31	32	33	34
	35											

TERMINAL RESPONSE: GET INPUT 5.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                               echo text, no help information available

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "12345"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	06	04	31	32	33	34	35				

Expected Sequence 5.2 (GET INPUT, default text for the input with max length, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 5.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 5.2.1	[digits only, SMS default alphabet, ME to echo text, packing not required, no help information available]
4	ME → USER	Display "Enter:" Display default text input: "***1111111111###***22222222 22###***3333333333###***4444 444444###***5555555555###*** 6666666666###***7777777777# ##***8888888888###***9999999 999###***0000000000###"	Range of expected length is 160-160 Text string coding in unpacked format Default text length 160 bytes coding in unpacked format
5	USER → ME	Completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 5.2.1	[command performed successfully]

PROACTIVE COMMAND: GET INPUT 5.2.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to
                        echo text, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Enter:"
Response length
    Minimum length: 160
    Maximum length: 160
Default Text
    Data coding scheme: unpacked, 8 bit data
    Text: "***1111111111###***2222222222###***3333333333###***4444444444###***
                        5555555555###***6666666666###***7777777777###***8888888888###***9999
                        999999###***0000000000###"

Coding:

BER-TLV:	D0	81	BA	81	03	01	23	00	82	02	81	82
	8D	07	04	45	6E	74	65	72	3A	91	02	A0
	A0	17	81	A1	04	2A	2A	2A	31	31	31	31
	31	31	31	31	31	31	23	23	23	2A	2A	2A
	32	32	32	32	32	32	32	32	32	32	23	23
	23	2A	2A	2A	33	33	33	33	33	33	33	33
	33	33	23	23	23	2A	2A	2A	34	34	34	34
	34	34	34	34	34	34	23	23	23	2A	2A	2A
	35	35	35	35	35	35	35	35	35	35	23	23
	23	2A	2A	2A	36	36	36	36	36	36	36	36
	36	36	23	23	23	2A	2A	2A	37	37	37	37
	37	37	37	37	37	37	23	23	23	2A	2A	2A
	38	38	38	38	38	38	38	38	38	38	23	23
	23	2A	2A	2A	39	39	39	39	39	39	39	39
	39	39	23	23	23	2A	2A	2A	30	30	30	30
	30	30	30	30	30	30	23	23	23			

TERMINAL RESPONSE: GET INPUT 5.2.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "***1111111111###***2222222222###***3333333333###***4444444444###***5555555555###***6666666666###***7777777777###***8888888888###***9999999999###***0000000000###"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	81	A1	04	2A	2A	2A	31	31	31	31	31
	31	31	31	31	31	23	23	23	2A	2A	2A	32
	32	32	32	32	32	32	32	32	23	23	23	
	2A	2A	2A	33	33	33	33	33	33	33	33	33
	33	23	23	23	2A	2A	2A	34	34	34	34	34
	34	34	34	34	23	23	23	2A	2A	2A	35	
	35	35	35	35	35	35	35	35	23	23	23	
	2A	2A	2A	36	36	36	36	36	36	36	36	36
	36	23	23	23	2A	2A	2A	37	37	37	37	37
	37	37	37	37	23	23	23	2A	2A	2A	38	
	38	38	38	38	38	38	38	38	23	23	23	
	2A	2A	2A	39	39	39	39	39	39	39	39	39
	39	23	23	23	2A	2A	2A	30	30	30	30	30
	30	30	30	30	30	23	23	23				

27.22.4.3.5.5   Test requirement

The ME shall operate in the manner defined in expected sequences 5.1 to 5.2.

27.22.4.3.6   GET INPUT (display of Icon)

27.22.4.3.6.1   Definition and applicability

See clause 3.2.2.

27.22.4.3.6.2   Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.5.4, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3, clause 12.13 and clause 12.31.

27.22.4.3.6.3   Test purpose

To verify that the ME displays the Icon contained in the GET INPUT proactive SIM command, and returns the text string entered in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.3.6.4   Method of test

27.22.4.3.6.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME screen shall be in its normal stand-by display.

27.22.4.3.6.4.2   Procedure

Expected Sequence 6.1A (GET INPUT, Basic icon, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.1.1	[BASIC-ICON self-explanatory for the Text string]
4	ME → USER	Display the BASIC-ICON for the prompt	
			Text string coding in unpacked format
5	USER → ME	Enter "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.1.1A	Command performed successfully]

PROACTIVE COMMAND: GET INPUT 6.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data

Text: "<NO-ICON>"
Response length
    Minimum length: 0
    Maximum length: 10
Icon Identifier
    Icon qualifier: self-explanatory
    Icon identifier: 1 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	1D	81	03	01	23	00	82	02	81	82	8D
	0A	04	3C	4E	4F	2D	49	43	4F	4E	3E	91
	02	00	0A	1E	02	00	01					

TERMINAL RESPONSE: GET INPUT 6.1.1A

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.1B (GET INPUT, Basic icon, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.1.1	[BASIC-ICON self-explanatory for the Text string]
4	ME → USER	Display "<NO-ICON>" for the prompt without the icon	
5	USER → ME	Enter "+" and completion	Text string coding in unpacked format
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.1.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INPUT 6.1.1B

Logically:

Command details
    Command number: 1
    Command type: GET INPUT

Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
Source device: ME
Destination device: SIM
Result

General Result: Command performed successfully but requested icon could not be displayed
Text string
Data coding scheme: unpacked, 8 bit data
Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.2A (GET INPUT, Basic icon, non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.2.1	[BASIC-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<BASIC-ICON>" and Display the BASIC-ICON for the prompt	Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.2.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INPUT 6.2.1

Logically:

Command details
Command number: 1
Command type: GET INPUT
Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
Source device: SIM
Destination device: ME
Text String
Data coding scheme: unpacked, 8 bit data
Text: "<BASIC-ICON>"
Response length
Minimum length: 0
Maximum length: 10
Icon Identifier
Icon qualifier: not self-explanatory
Icon identifier: 1 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	20	81	03	01	23	00	82	02	81	82	8D
	0D	04	3C	42	41	53	49	43	2D	49	43	4F
	4E	3E	91	02	00	0A	1E	02	01	01		

TERMINAL RESPONSE: GET INPUT 6.2.1A

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.2B (GET INPUT, Basic icon, non self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.2.1	[BASIC-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<BASIC-ICON>" for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.2.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INPUT 6.2.1B

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed
    Text string
        Data coding scheme: unpacked, 8 bit data
                               Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.3A (GET INPUT, Colour icon, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.3.1	[COLOUR-ICON self-explanatory for the Text string]
4	ME → USER	Display the COLOUR-ICON for the prompt	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.3.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INPUT 6.3.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "<NO-ICON>"
Response length
    Minimum length: 0
    Maximum length: 10
Icon Identifier
    Icon qualifier: self-explanatory
    Icon identifier: 2 (number of record in EF_{Img})

Coding:

BER-TLV:	D0	1D	81	03	01	23	00	82	02	81	82	8D
	0A	04	3C	4E	4F	2D	49	43	4F	4E	3E	91
	02	00	0A	1E	02	00	02					

TERMINAL RESPONSE: GET INPUT 6.3.1A

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, no help information available

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.3B (GET INPUT, Colour icon, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.3.1	[COLOUR-ICON self-explanatory for the Text string]
4	ME → USER	Display the COLOUR-ICON for the prompt	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.3.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INPUT 6.3.1B

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, no help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully but requested icon could not be displayed
Text string
    Data coding scheme: unpacked, 8 bit data
    Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	04
	8D	02	04	2B								

Expected Sequence 6.4A (GET INPUT, Colour icon, non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.4.1	[COLOUR-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<COLOUR-ICON>" and Display the COLOUR-ICON for the prompt	
5	USER → ME	Enter the input "+" and completion	Text string coding in unpacked format
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.4.1A	[Command performed successfully]

PROACTIVE COMMAND: GET INPUT 6.4.1

Logically:

```
Command details
      Command number:        1
      Command type:          GET INPUT
      Command qualifier:     digits (0-9, *, # and +) only, no help information available
Device identities
      Source device:         SIM
      Destination device:    ME
Text String
      Data coding scheme:    unpacked, 8 bit data
      Text:                  "<COLOUR-ICON>"
Response length
      Minimum length:        0
      Maximum length:        10
Icon Identifier
      Icon qualifier:        not self-explanatory
      Icon identifier:       2 (number of record in EF_{Img})
```

Coding:

BER-TLV:	D0	1D	81	03	01	23	00	82	02	81	82	8D
	0A	04	3C	4E	4F	2D	49	43	4F	4E	3E	91
	02	00	0A	1E	02	01	02					

TERMINAL RESPONSE: GET INPUT 6.4.1A

Logically:

```
Command details
      Command number:        1
      Command type:          GET INPUT
      Command qualifier:     digits (0-9, *, # and +) only, no help information available
Device identities
      Source device:         ME
      Destination device:    SIM
Result
      General Result:        Command performed successfully
Text string
      Data coding scheme:    unpacked, 8 bit data
      Text:                  "+"
```

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	00
	8D	02	04	2B								

Expected Sequence 6.4B (GET INPUT, Colour icon, non self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 6.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 6.4.1	[COLOUR-ICON non self-explanatory for the Text string]
4	ME → USER	Display "<COLOUR-ICON>" for the prompt without the icon	
			Text string coding in unpacked format
5	USER → ME	Enter the input "+" and completion	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 6.4.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: GET INPUT 6.4.1B

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, no help information available
    Device identities
        Source device: ME
        Destination device: SIM
    Result
                               General Result: Command performed successfully but requested icon could not be displayed
    Text string
        Data coding scheme: unpacked, 8 bit data
        Text: "+"

Coding:

BER-TLV:	81	03	01	23	00	82	02	82	81	83	01	04
	8D	02	04	2B								

27.22.4.3.6.5   Test Requirement

The ME shall operate in the manner defined in expected sequences 6.1A to 6.4B.

27.22.4.3.7   GET INPUT (Help Information)

27.22.4.3.7.1   Definition and applicability

See clause 3.2.2.

27.22.4.3.7.2   Conformance requirement

The ME shall support the GET INPUT command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 12.6, clause 12.15, clause 12.15.1, clause 12.15.2, clause 12.15.3 and clause 12.13.

27.22.4.3.7.3   Test purpose

To verify that the ME displays the text contained in the GET INPUT proactive SIM command, and returns a 'help information required by the user' result value in the TERMINAL RESPONSE command sent to the SIM if the user has indicated the need to get help information.

27.22.4.3.7.4   Method of test

27.22.4.3.7.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.3.7.4.2   Procedure

Expected Sequence 7.1 (GET INPUT, digits only, ME to echo text, ME supporting 8 bit data Message, help information available)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET INPUT 7.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET INPUT 7.1.1	[digits only, SMS default alphabet, ME to echo text, packing not required, help information available]
4	ME → USER	Display "Enter 12345"	Range of expected length is 5-5 Text string coding in unpacked format
5	USER → ME	Press "help"	
6	ME → SIM	TERMINAL RESPONSE: GET INPUT 7.1.1	[command performed, help information required by user]

PROACTIVE COMMAND: GET INPUT 7.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET INPUT
        Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, help information available
    Device identities
        Source device: SIM
        Destination device: ME
    Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Enter 12345"
    Response length
        Minimum length: 5
        Maximum length: 5

Coding:

BER-TLV:	D0	1B	81	03	01	23	80	82	02	81	82	8D
	0C	04	45	6E	74	65	72	20	31	32	33	34
	35	91	02	05	05							

TERMINAL RESPONSE: GET INPUT 7.1.1

Logically:

Command details
    Command number: 1
    Command type: GET INPUT
    Command qualifier: digits (0-9, *, # and +) only, SMS default alphabet, input in unpacked format, ME to echo text, help information available
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Help information required by the user

Coding:

BER-TLV:	81	03	01	23	80	82	02	82	81	83	01	13

27.22.4.3.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 7.1.

27.22.4.4 MORE TIME

27.22.4.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.4.2 Conformance requirement

The ME shall support the MORE TIME command as defined in:

- 3GPP TS 11.14 [15] clause 6.4.4, clause 6.6.4, clause 5.2, clause 12.6 and clause 12.7.

27.22.4.4.3 Test purpose

To verify that the ME shall send a TERMINAL RESPONSE (OK) to the SIM after the ME receives the MORE TIME proactive SIM command.

27.22.4.4.4 Method of test

27.22.4.4.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.4.4.2 Procedure

Expected Sequence 1.1 (MORE TIME)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: MORE TIME 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: MORE TIME 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: MORE TIME 1.1.1	[Command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: MORE TIME 1.1.1

Logically:

 Command details
  Command number: 1
  Command type: MORE TIME
  Command qualifier: "00"
 Device identities
  Source device: SIM
  Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	02	00	82	02	81	82

TERMINAL RESPONSE: MORE TIME 1.1.1

Logically:

 Command details
  Command number: 1
  Command type: MORE TIME
  Command qualifier: "00"
 Device identities
  Source device: ME
  Destination device: SIM
 Result
  General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	02	00	82	02	82	81	83	01	00

27.22.4.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.4.5 PLAY TONE

27.22.4.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.2 Conformance requirement

The ME shall support the PLAY TONE command as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 12.6, clause 12.7, clause 12.2, clause 12.16 and clause 12.8.

27.22.4.5.3 Test purpose

To verify that the ME plays an audio tone of a type and duration contained in the PLAY TONE proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that the ME plays the requested audio tone through the external ringer whilst not in call and shall superimpose the tone on top of the downlink audio whilst in call.

To verify that the ME displays the text contained in the PLAY TONE proactive SIM command.

27.22.4.5.4 Method of test

27.22.4.5.4.1 Initial conditions

The ME is connected to the SIM Simulator and to the System Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.5.4.2 Procedure

Expected Sequence 1.1 (PLAY TONE)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.1	
4	ME → USER	Display "Dial Tone" Play a standard supervisory dial tone through the external ringer for a duration of 5 s	
5	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.1	[Command performed successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.2	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.2	
10	ME → USER	Display "Sub. Busy" Play a standard supervisory called subscriber busy tone for a duration of 5 s	
11	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.2	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.3	

Step	Direction	MESSAGE / Action	Comments
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.3	
16	ME → USER	Display "Congestion" Play a standard supervisory congestion tone for a duration of 5 s	
17	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.3	[Command performed successfully]
18	SIM → ME	PROACTIVE SIM SESSION ENDED	
19	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.4	
20	ME → SIM	FETCH	
21	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.4	
22	ME → USER	Display "RP Ack" Play a standard supervisory radio path acknowledgement tone	
23	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.4	[Command performed successfully]
24	SIM → ME	PROACTIVE SIM SESSION ENDED	
25	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.5	
26	ME → SIM	FETCH	
27	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.5	
28	ME → USER	Display "No RP" Play a standard supervisory radio path not available / call dropped tone for a duration of 5 s	
29	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.5	[Command performed successfully]
30	SIM → ME	PROACTIVE SIM SESSION ENDED	
31	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.6	
32	ME → SIM	FETCH	
33	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.6	
34	ME → USER	Display "Spec Info" Play a standard supervisory error / special information tone for a duration of 5 s	
35	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.6	[Command performed successfully]
36	SIM → ME	PROACTIVE SIM SESSION ENDED	
37	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.7	
38	ME → SIM	FETCH	
39	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.7	
40	ME → USER	Display "Call Wait" Play a standard supervisory call waiting tone for a duration of 5 s	
41	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.7	[Command performed successfully]
42	SIM → ME	PROACTIVE SIM SESSION ENDED	

Step	Direction	MESSAGE / Action	Comments
43	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.8	
44	ME → SIM	FETCH	
45	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.8	
46	ME → USER	Display "Ring Tone"	
47	ME → SIM	Play a standard supervisory ringing tone for duration of 5 s TERMINAL RESPONSE: PLAY TONE 1.1.8	[Command performed successfully]
48	SIM → ME	PROACTIVE SIM SESSION ENDED	
49	USER → ME	Set up a voice call	[User dials 123456789 to connect to the network manually]
50	ME → Network	Establish voice call	[Voice call is established]
51	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.9	
52	ME → SIM	FETCH	
53	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.9	
54	ME → USER	Display "Dial Tone"	
55	ME → SIM	Superimpose the standard supervisory dial tone on the audio downlink for the duration of 5 s TERMINAL RESPONSE: PLAY TONE 1.1.9	[Command performed successfully]
56	SIM → ME	PROACTIVE SIM SESSION ENDED	
57	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.10	
58	ME → SIM	FETCH	
59	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.10	
60	ME → USER	Display "This command instructs the ME to play an audio tone. Upon receiving this command, the ME shall check if it is currently in, or in the process of setting up (SET-UP message sent to the network, see GSM"04.08"(8)), a speech call. - If the ME I"	
61	ME → SIM	Play a general beep TERMINAL RESPONSE: PLAY TONE 1.1.10a or TERMINAL RESPONSE: PLAY TONE 1.1.10b	[Command performed successfully] or [Command beyond ME's capabilities]
62	SIM → ME	PROACTIVE SIM SESSION ENDED	
63	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.11	
64	ME → SIM	FETCH	
65	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.11	
66	ME → USER	Display "Beep"	
67	ME → SIM	Play a ME proprietary general beep TERMINAL RESPONSE: PLAY TONE 1.1.11a Or TERMINAL RESPONSE: PLAY TONE 1.1.11b	[Command performed successfully] or [Command beyond ME's capabilities]

Step	Direction	MESSAGE / Action	Comments
68	SIM → ME	PROACTIVE SIM SESSION ENDED	
69	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.12	
70	ME → SIM	FETCH	
71	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.12	
72	ME → USER	Display "Positive"	
73	ME → SIM	Play a ME proprietary positive acknowledgement tone TERMINAL RESPONSE: PLAY TONE 1.1.12a or TERMINAL RESPONSE: PLAY TONE 1.1.12b	[Command performed successfully] or [Command beyond ME's capabilities]
74	SIM → ME	PROACTIVE SIM SESSION ENDED	
75	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.13	
76	ME → SIM	FETCH	
77	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.13	
78	ME → USER	Display "Negative"	
79	ME → SIM	Play a ME proprietary negative acknowledgement tone TERMINAL RESPONSE: PLAY TONE 1.1.13a or TERMINAL RESPONSE: PLAY TONE 1.1.13b	[Command performed successfully] or [Command beyond ME's capabilities]
80	SIM → ME	PROACTIVE SIM SESSION ENDED	
81	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.14	
82	ME → SIM	FETCH	
83	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.14	
84	ME → USER	Display "Quick"	
85	ME → SIM	Play a ME proprietary general beep TERMINAL RESPONSE: PLAY TONE 1.1.14a or TERMINAL RESPONSE: PLAY TONE 1.1.14b	[Command performed successfully] or [Command beyond ME's capabilities]
86	SIM → ME	PROACTIVE SIM SESSION ENDED	
87	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.15	
88	ME → SIM	FETCH	
89	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.15	
90	ME → USER	Display "<ABORT>"	
91	ME → SIM	Play a ME Error / Special information tone for 1 minute until user aborts this command TERMINAL RESPONSE: PLAY TONE 1.1.15	[Proactive SIM session terminated by the user]
92	SIM → ME	PROACTIVE SIM SESSION ENDED	
93	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.1.16	
94	ME → SIM	FETCH	

Step	Direction	MESSAGE / Action	Comments
95	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.1.16	[No alpha identifier, no tone tag, no duration tag]
96	ME → User	ME plays general beep, or if not supported any (defined by ME-manufacturer) other supported tone	[ME uses default duration defined by ME-manufacturer]
97	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.1.16	[Command performed successfully], [ME uses general beep, or if not supported any (defined by ME-manufacturer) other supported tone, uses default duration defined by ME-manufacturer]
98	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: PLAY TONE 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Dial Tone"
        Tone: Standard supervisory tones: dial tone
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	44	69	61	6C	20	54	6F	6E	65	8E	01
	01	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.2

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Sub. Busy"
        Tone: Standard supervisory tones: called subscriber busy
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	53	75	62	2E	20	42	75	73	79	8E	01
	02	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.3

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Congestion"
        Tone: Standard supervisory tones: congestion
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	1C	81	03	01	20	00	82	02	81	03	85
	0A	43	6F	6E	67	65	73	74	69	6F	6E	8E
	01	03	84	02	01	05						

PROACTIVE COMMAND: PLAY TONE 1.1.4

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "RP Ack"
        Tone: Standard supervisory tones: radio path acknowledge
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	18	81	03	01	20	00	82	02	81	03	85
	06	52	50	20	41	63	6B	8E	01	04	84	02
	01	05										

PROACTIVE COMMAND: PLAY TONE 1.1.5

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "No RP"
        Tone: Standard supervisory tones: radio path not available

Duration
Time unit: Seconds
Time interval: 5

Coding:

BER-TLV:	D0	17	81	03	01	20	00	82	02	81	03	85
	05	4E	6F	20	52	50	8E	01	05	84	02	01
	05											

PROACTIVE COMMAND: PLAY TONE 1.1.6

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Spec Info"
        Tone: Standard supervisory tones: Error/ special information
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	53	70	65	63	20	49	6E	66	6F	8E	01
	06	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.7

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Call Wait"
        Tone: Standard supervisory tones: call waiting tone
    Duration
        Time unit: Seconds
        Time interval: 5

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	43	61	6C	6C	20	57	61	69	74	8E	01
	07	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.8

Logically:

```
    Command details
        Command number:      1
        Command type:        PLAY TONE
        Command qualifier:   "00"
    Device identities
        Source device:       SIM
        Destination device:  Earpiece
        Alpha identifier:    "Ring Tone"
        Tone:                Standard supervisory tones: ringing tone
    Duration
        Time unit:           Seconds
        Time interval:       5
```

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	52	69	6E	67	20	54	6F	6E	65	8E	01
	08	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.9

Logically:

```
    Command details
        Command number:      1
        Command type:        PLAY TONE
        Command qualifier:   "00"
    Device identities
        Source device:       SIM
        Destination device:  Earpiece
        Alpha identifier:    "Dial Tone"
        Tone:                Standard supervisory tones: dial tone
    Duration
        Time unit:           Seconds
        Time interval:       5
```

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	44	69	61	6C	20	54	6F	6E	65	8E	01
	01	84	02	01	05							

PROACTIVE COMMAND: PLAY TONE 1.1.10

Logically:

```
    Command details
        Command number:      1
        Command type:        PLAY TONE
        Command qualifier:   "00"
    Device identities
        Source device:       SIM
        Destination device:  Earpiece
        Alpha identifier:    "This command instructs the ME to play an audio tone. Upon receiving this
                             command, the ME shall check if it is currently in, or in the process of setting up
                             (SET-UP message sent to the network, see GSM"04.08"(8)), a speech call. - If the
                             ME I"
```

Coding:

BER-TLV:	D0	81	FD	81	03	01	20	00	82	02	81	03
	85	81	F1	54	68	69	73	20	63	6F	6D	6D
	61	6E	64	20	69	6E	73	74	72	75	63	74
	73	20	74	68	65	20	4D	45	20	74	6F	20
	70	6C	61	79	20	61	6E	20	61	75	64	69
	6F	20	74	6F	6E	65	2E	20	55	70	6F	6E
	20	72	65	63	65	69	76	69	6E	67	20	74
	68	69	73	20	63	6F	6D	6D	61	6E	64	2C
	20	74	68	65	20	4D	45	20	73	68	61	6C
	6C	20	63	68	65	63	6B	20	69	66	20	69
	74	20	69	73	20	63	75	72	72	65	6E	74
	6C	79	20	69	6E	2C	20	6F	72	20	69	6E
	20	74	68	65	20	70	72	6F	63	65	73	73
	20	6F	66	20	73	65	74	74	69	6E	67	20
	75	70	20	28	53	45	54	2D	55	50	20	6D
	65	73	73	61	67	65	20	73	65	6E	74	20
	74	6F	20	74	68	65	20	6E	65	74	77	6F
	72	6B	2C	20	73	65	65	20	47	53	4D	22
	30	34	2E	30	38	22	28	38	29	29	2C	20
	61	20	73	70	65	65	63	68	20	63	61	6C
	6C	2E	20	2D	20	49	66	20	74	68	65	20
	4D	45	20	49								

PROACTIVE COMMAND: PLAY TONE 1.1.11

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Beep"
        Tone: ME proprietary tones: general beep
    Duration
        Time unit: Seconds
        Time interval: 1

Coding:

BER-TLV:	D0	16	81	03	01	20	00	82	02	81	03	85
	04	42	65	65	70	8E	01	10	84	02	01	01

PROACTIVE COMMAND: PLAY TONE 1.1.12

Logically:

    Command details
        Command number: 1
        Command type: PLAY TONE
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Earpiece
        Alpha identifier: "Positive"
        Tone: ME proprietary tones: positive acknowledgement tone

Duration
    Time unit: Seconds
    Time interval: 1

Coding:

BER-TLV:	D0	1A	81	03	01	20	00	82	02	81	03	85
	08	50	6F	73	69	74	69	76	65	8E	01	11
	84	02	01	01								

PROACTIVE COMMAND: PLAY TONE 1.1.13

Logically:

  Command details
    Command number: 1
    Command type: PLAY TONE
    Command qualifier: "00"
  Device identities
    Source device: SIM
    Destination device: Earpiece
    Alpha identifier: "Negative"
    Tone: ME proprietary tones: negative acknowledgement tone
  Duration
    Time unit: Seconds
    Time interval: 1

Coding:

BER-TLV:	D0	1A	81	03	01	20	00	82	02	81	03	85
	08	4E	65	67	61	74	69	76	65	8E	01	12
	84	02	01	01								

PROACTIVE COMMAND: PLAY TONE 1.1.14

Logically:

  Command details
    Command number: 1
    Command type: PLAY TONE
    Command qualifier: "00"
  Device identities
    Source device: SIM
    Destination device: Earpiece
    Alpha identifier: "Quick"
    Tone: ME proprietary tones: general beep
  Duration
    Time unit: Tenths of seconds
    Time interval: 2

Coding:

BER-TLV:	D0	17	81	03	01	20	00	82	02	81	03	85
	05	51	75	69	63	6B	8E	01	10	84	02	02
	02											

PROACTIVE COMMAND: PLAY TONE 1.1.15

Logically:

```
    Command details
        Command number:       1
        Command type:         PLAY TONE
        Command qualifier:    "00"
    Device identities
        Source device:        SIM
        Destination device:   Earpiece
        Alpha identifier:     "<ABORT>"
        Tone:                 Standard supervisory tones: Error / Special information
    Duration
        Time unit:            Minutes
        Time interval:        1
```

Coding:

BER-TLV:	D0	19	81	03	01	20	00	82	02	81	03	85
	07	3C	41	42	4F	52	54	3E	8E	01	06	84
	02	00	01									

PROACTIVE COMMAND: PLAY TONE 1.1.16

Logically:

```
    Command details
        Command number:       1
        Command type:         PLAY TONE
        Command qualifier:    "00"
    Device identities
        Source device:        SIM
        Destination device:   Earpiece
```

Coding:

BER-TLV:	D0	09	81	03	01	20	00	82	02	81	03	

TERMINAL RESPONSE: PLAY TONE 1.1.1 ... 1.1.9, 1.1.16

Logically:

```
    Command details
        Command number:       1
        Command type:         PLAY TONE
        Command qualifier:    "00"
    Device identities
        Source device:        ME
        Destination device:   SIM
    Result
        General Result:       Command performed successfully
```

Coding:

BER-TLV:	81	03	01	20	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: PLAY TONE 1.1.10a ... 1.1.14a

Logically:

> Command details
>> Command number: 1
>> Command type: PLAY TONE
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	20	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: PLAY TONE 1.1.10b ..1.1.14b

Logically:

> Command details
>> Command number: 1
>> Command type: PLAY TONE
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command beyond ME's capabilities

Coding:

BER-TLV:	81	03	01	20	00	82	02	82	81	83	01	30

TERMINAL RESPONSE: PLAY TONE 1.1.15

Logically:

> Command details
>> Command number: 1
>> Command type: PLAY TONE
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Proactive SIM session terminated by user

Coding:

BER-TLV:	81	03	01	20	00	82	02	82	81	83	01	10

27.22.4.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.4.6   POLL INTERVAL

27.22.4.6.1   Definition and applicability

See clause 3.2.2.

27.22.4.6.2   Conformance requirement

The ME shall support the POLL INTERVAL command as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.6, clause 6.6.6, clause 5.2, clause 12.6, clause 12.7 and clause 12.8.

27.22.4.6.3   Test purpose

To verify that the ME shall send a TERMINAL RESPONSE (OK) to the SIM after the ME receives the POLL INTERVAL proactive SIM command.

To verify that the ME gives a valid response to the polling interval requested by the SIM.

To verify that the ME sends STATUS commands to the SIM at an interval no longer than the interval negotiated by the SIM.

27.22.4.6.4   Method of test

27.22.4.6.4.1   Initial conditions

The ME is connected to the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.6.4.2   Procedure

Expected Sequence 1.1 (POLL INTERVAL, Seconds)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POLL INTERVAL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POLL INTERVAL 1.1.1	[Duration: 20 seconds]
4	ME → SIM	TERMINAL RESPONSE: POLL INTERVAL 1.1.1	[Command performed successfully]
5	ME → SIM	ME polls in intervals of 20 seconds	

PROACTIVE COMMAND: POLL INTERVAL 1.1.1

Logically:

```
Command details
     Command number:      1
     Command type:        POLL INTERVAL
     Command qualifier:   "00"
Device identities
     Source device:       SIM
     Destination device:  ME
Duration
     Time unit:           Seconds
     Time interval:       20
```

Coding:

BER-TLV:	D0	0D	81	03	01	03	00	82	02	81	82	84
	02	01	14									

TERMINAL RESPONSE: POLL INTERVAL 1.1.1

Logically:

Command details
    Command number: 1
    Command type: POLL INTERVAL
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Duration
    Time unit: Seconds
    Time interval: 20

Coding:

BER-TLV:	81	03	01	03	00	82	02	82	81	83	01	00
	84	02	01	14								

27.22.4.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.4.7 REFRESH

27.22.4.7.1 REFRESH (normal)

27.22.4.7.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.1.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.7, clause 6.6.13, clause 5.2, clause 12.6, clause 12.7 and clause 12.18.

27.22.4.7.1.3 Test purpose

To verify that the ME performs the SIM initialization and / or re-reads the contents and structure of the EFs on the SIM that have been changed and / or restarts the card session by resetting the ME, and successfully returns the result of the execution of the command in the TERMINAL RESPONSE command send to the SIM.

27.22.4.7.1.4 Method of test

27.22.4.7.1.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The elementary files for the second SIM Simulator are coded as SIM Application Toolkit default with the following exceptions.

EF_{FDN} (Fixed Dialling Numbers)

Logically:

    At least 10 records

        Record 1:

Length of alpha identifier:	32 characters
Alpha identifier:	"ABC"
Length of BCD number:	"03"
TON and NPI:	Telephony and Unknown
Dialled number:	123
CCI:	None
Ext2:	None

Coding:	B1	B2	B3	B4	...	B32	B33	B34	B35	B36	B37	...	B46
Record 1:	41	42	43	FF	...	FF	03	81	21	F3	FF	...	FF

        Record 2:

Length of alpha identifier:	32 characters
Alpha identifier:	"DEF"
Length of BCD number:	"04"
TON and NPI:	Telephony and Unknown
Dialled number:	9876
CCI:	None
Ext2:	None

Coding:	B1	B2	B3	B4	...	B32	B33	B34	B35	B36	B37	...	B46
Record 1:	44	45	46	FF	...	FF	03	81	89	67	FF	...	FF

Prior to the execution of expected sequence 1.2 the FDN service shall be enabled.

27.22.4.7.1.4.2 Procedure

Expected Sequence 1.1 (REFRESH, SIM Initialization)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 1.1.1	
4	SIM	Invalidate EF IMSI, EF LOCI and EF ADN	[Restricted dialling feature is enabled]
5	ME → SIM	SIM Initialization	[ME performs SIM initialization]
6	ME → SIM	TERMINAL RESPONSE: REFRESH 1.1.1A Or	
		TERMINAL RESPONSE: REFRESH 1.1.1B	[additional EFs read]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	
8	USER → ME	Call setup to "321"	
9	ME → USER	Call set up not allowed	
10	USER → ME	Call setup to "123"	
11	ME → SS	Setup	Called party BCD number shall be "123"

PROACTIVE COMMAND: REFRESH 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: SIM Initialization
    Device identities
        Source device: SIM
        Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	03	82	02	81	82	

TERMINAL RESPONSE: REFRESH 1.1.1A

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: SIM Initialization
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	03	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 1.1.1B

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: SIM Initialization
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	03	82	02	82	81	83	01	03

Expected Sequence 1.2 (REFRESH, File Change Notification)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 1.2.1	
4	SIM	Update EF FDN RECORD 1	[EF FDN record 1 updated to contain the dialling string "0123456789"]
5	ME → SIM	READ RECORD: EF FDN	
6	ME → SIM	TERMINAL RESPONSE: REFRESH 1.2.1A Or	[normal ending]
		TERMINAL RESPONSE: REFRESH 1.2.1B	[additional EFs read]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	
8	USER → ME	Call setup to "123"	
9	ME → USER	Call set up not allowed	
10	USER → ME	Call setup to "0123456789"	
11	ME → SS	Setup	Called party BCD number shall be "0123456789"

PROACTIVE COMMAND: REFRESH 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: File Change Notification
    Device identities
        Source device: SIM
        Destination device: ME
        File List: EF FDN

Coding:

BER-TLV:	D0	12	81	03	01	01	01	82	02	81	82	92
	07	01	3F	00	7F	10	6F	3B				

TERMINAL RESPONSE: REFRESH 1.2.1A

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: File Change Notification
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	01	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 1.2.1B

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: File Change Notification
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	01	82	02	82	81	83	01	03

Expected Sequence 1.3 (REFRESH, SIM Initialization and File Change Notification)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 1.3.1	
4	SIM	Update EF PLMN	[EF PLMN to contain the PLMN code "98798" as the first PLMN code]
5	ME → SIM	READ BINARY: EF PLMN	
6	ME → SIM	TERMINAL RESPONSE: REFRESH 1.3.1A Or	[normal ending]
		TERMINAL RESPONSE: REFRESH 1.3.1B	[additional EFs read]
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: REFRESH 1.3.1

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: SIM
    Destination device: ME
    File List: EF PLMN

Coding:

BER-TLV:	D0	12	81	03	01	01	02	82	02	81	82	92
	07	01	3F	00	7F	20	6F	30				

TERMINAL RESPONSE: REFRESH 1.3.1A

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	02	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 1.3.1B

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	02	82	02	82	81	83	01	03

Expected Sequence 1.4 (REFRESH, SIM Initialization and Full File Change Notification)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 1.4.1	
4	SIM	Invalidate EF IMSI, EF LOCI and EF ADN	[Restricted dialling feature is enabled]
5	SIM	Update EF FDN	[EF FDN record 1 updated to contain the dialling string "0123456789"]
6	ME → SIM	SIM Initialization	[ME performs SIM initialization]
7	ME → SIM	TERMINAL RESPONSE: REFRESH 1.4.1A Or	
		TERMINAL RESPONSE: REFRESH 1.4.1B	[additional EFs read]
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	Call setup to "321"	
10	ME → USER	Call set up not allowed	
11	USER → ME	Call setup to "0123456789"	
12	ME → SS	Setup	Called party BCD number shall be "0123456789"

PROACTIVE COMMAND: REFRESH 1.4.1A

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and Full File Change Notification
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	00	82	02	81	82	

TERMINAL RESPONSE: REFRESH 1.4.1A

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 1.4.1B

Logically:

        Command details
                Command number: 1
                Command type: REFRESH
                Command qualifier: SIM Initialization
        Device identities
                Source device: ME
                Destination device: SIM
        Result
                General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	00	82	02	82	81	83	01	03

Expected Sequence 1.5 (REFRESH, SIM Reset)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 1.5.1	
4	ME → SIM	GSM Termination Procedure	
5	ME → SIM	GSM Activation Procedure	[At same voltage]
6	ME → SIM	SIM Initialization	
7	ME → SIM		[NO TERMINAL RESPONSE]

PROACTIVE COMMAND: REFRESH 1.5.1

Logically:

        Command details
                Command number: 1
                Command type: REFRESH
                Command qualifier: SIM Reset
        Device identities
                Source device: SIM
                Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	04	82	02	81	82	

Expected Sequence 1.6 (REFRESH, SIM Initialization after SMS-PP data download)

Step	Direction	MESSAGE / Action	Comments
1	ME	The ME shall be in its normal idle mode	[Start a sequence to verify that the ME returns the RP-ACK message back to the system Simulator, if the SIM responds with '90 00']
2	SS → ME	SMS-PP Data Download Message 1.6.1	
3	ME → USER	The ME shall not display the message or alert the user of a short message waiting	
4	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.6.1	
5	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.1.1	
6	ME → SS	RP-ACK	
7	ME → SIM	FETCH	
8	SIM → ME	PROACTIVE COMMAND: REFRESH 1.1.1	
9	SIM	Invalidate EF IMSI, EF LOCI and EF ADN	[Restricted dialling feature is enabled]
10	ME → SIM	SIM Initialization	[ME performs SIM initialization]
11	ME → SIM	TERMINAL RESPONSE: REFRESH 1.1.1A Or	
		TERMINAL RESPONSE: REFRESH 1.1.1B	[additional EFs read]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	USER → ME	Call setup to "321"	
14	ME → USER	Call set up not allowed	
15	USER → ME	Call setup to "123"	
16	ME → SS	Setup	Called party BCD number shall be "123"

SMS-PP (Data Download) Message 1.6.1

Logically:

SMS TPDU
TP-MTI	SMS-DELIVER	
TP-MMS	No more messages waiting for the MS in this SC	
TP-RP	TP-Reply-Path is not set in this SMS-DELIVER	
TP-UDHI	TP-UD field contains only the short message	
TP-SRI	A status report will not be returned to the SME	
TP-OA		
	TON	International number
	NPI	"ISDN / telephone numbering plan"
	Address value	"1234"
TP-PID	SIM Data download	
TP-DCS		
	Coding Group	General Data Coding
	Compression	Text is uncompressed
	Message Class	Class 2 SIM Specific Message
	Alphabet	Default Alphabet
TP-SCTS:	01/01/98 00:00:00 +0	
TP-UDL	13	
TP-UD	"Short Message"	

Coding:

BER-TLV	04	03	91	21	43	7F	12	89	10	10	00	00
	00	00	0D	53	F4	5B	4E	07	35	CB	F3	79
	F8	5C	06									

ENVELOPE: SMS-PP DOWNLOAD 1.6.1

Logically:

```
SMS-PP Download
        Device identities
            Source device:          Network
            Destination device:     SIM
        Address
            TON                     International number
            NPI                     "ISDN / telephone numbering plan"
            Dialling number string  "112233445566778"
        SMS TPDU
            TP-MTI                  SMS-DELIVER
            TP-MMS                  No more messages waiting for the MS in this SC
            TP-RP                   TP-Reply-Path is not set in this SMS-DELIVER
            TP-UDHI                 TP-UD field contains only the short message
            TP-SRI                  A status report will not be returned to the SME
            TP-OA
                TON                 International number
                NPI                 "ISDN / telephone numbering plan"
                Address value       "1234"
            TP-PID                  SIM Data download
            TP-DCS
                Coding Group        General Data Coding
                Compression         Text is uncompressed
                Message Class       Class 2 SIM Specific Message
                Alphabet            Default Alphabet
            TP-SCTS:                01/01/98 00:00:00 +0
            TP-UDL                  13
            TP-UD                   "Short Message"
```

Coding:

BER-TLV:	D1	2C	82	02	83	81	06	09	91	11	22	33
	44	55	66	77	F8	8B	1B	04	04	91	21	43
	7F	12	89	10	10	00	00	00	00	0D	53	F4
	5B	4E	07	35	CB	F3	79	F8	5C	06		

27.22.4.7.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.4.7.2   REFRESH (IMSI changing procedure)

27.22.4.7.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.7.2.2   Conformance requirement

The ME shall support the REFRESH command as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.7, clause 6.6.13, clause 5.2, clause 12.6, clause 12.7 and clause 12.18.

Additionally the ME shall support the SIM Initialization procedure as defined in:

- 3GPP TS 11.11 [13] clause 12.2.1.

27.22.4.7.2.3   Test purpose

To verify that the ME performs the SIM initialization and / or re-reads the contents and structure of the EFs on the SIM that have been changed and / or restarts the card session by resetting the ME, and successfully returns the result of the execution of the command in the TERMINAL RESPONSE command send to the SIM.

27.22.4.7.2.4   Method of test

27.22.4.7.2.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The elementary files for the second SIM Simulator are coded as SIM Application Toolkit default with the following exceptions.

27.22.4.7.2.4.2   Procedure

Expected Sequence 2.1 (REFRESH, SIM Initialization and File Change Notification)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 2.1.1	
4	SIM	Update EF IMSI, EF LOCI and EF KC	[Update the contents of EF IMSI to "001010123456788", EF LOCI to not updated and EF KC to not valid]
5	ME	Invoke MM Restart Procedure	
6	ME → SIM	SIM INITIALIZATION	[ME performs SIM initialization; including reading EF IMSI, EF LOCI and EF KC]
7	ME → SIM	TERMINAL RESPONSE: REFRESH 2.1.1A Or	[normal]
		TERMINAL RESPONSE: REFRESH 2.1.1B	[additional EFs read]
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	ME → SS	Location updating request (type "normal location updating")	[Send IMSI of "001010123456788" to System Simulator]

PROACTIVE COMMAND: REFRESH 2.1.1

Logically:

```
    Command details
         Command number:          1
         Command type:            REFRESH
         Command qualifier:       SIM Initialization and File Change Notification
    Device identities
         Source device:           SIM
         Destination device:      ME
    File List
         File 1:                  EF IMSI
         File 2:                  EF LOCI
```

File 3:   EF KC

Coding:

BER-TLV:	D0	1E	81	03	01	01	02	82	02	81	82	92
	13	03	3F	00	7F	20	6F	07	3F	00	7F	20
	6F	7E	3F	00	7F	20	6F	20				

TERMINAL RESPONSE: REFRESH 2.1.1A

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	02	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 2.1.1B

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	02	82	02	82	81	83	01	03

Expected Sequence 2.2 (REFRESH, SIM Initialization and Full File Change Notification)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 2.2.1	
4	SIM	Update EF IMSI	[Update the contents of EF IMSI to "001010123456787", -]
5	ME	Invoke MM Restart Procedure	
6	ME → SIM	SIM INITIALIZATION	[ME performs SIM initialization; including reading EF IMSI, EF LOCI and EF KC]
7	ME → SIM	TERMINAL RESPONSE: REFRESH 2.2.1A Or TERMINAL RESPONSE: REFRESH 2.2.1B	[normal] [additional EFs read]
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	ME → SS	IMSI ATTACH	[Send IMSI of "001010123456787" to System Simulator]

PROACTIVE COMMAND: REFRESH 2.2.1

Logically:

        Command details
                Command number: 1
                Command type: REFRESH
                Command qualifier: SIM Initialization and Full File Change Notification
        Device identities
                Source device: SIM
                Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	00	82	02	81	82

TERMINAL RESPONSE: REFRESH 2.2.1A

Logically:

        Command details
                Command number: 1
                Command type: REFRESH
                Command qualifier: SIM Initialization and File Change Notification
        Device identities
                Source device: ME
                Destination device: SIM
        Result
                General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 2.2.1B

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization and File Change Notification
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	00	82	02	82	81	83	01	03

Expected Sequence 2.3 (REFRESH, SIM Reset)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: REFRESH 2.3.1	
4	SIM	Update EF IMSI	[Update the contents of EF IMSI to "001010123456786
5	ME → SIM	GSM Termination Procedure	
6	ME → SIM	GSM Activation Procedure	[At same voltage]
7	ME → SIM	SIM Initialization	[ME performs SIM initialization; including reading EF IMSI, EF LOCI and EF KC]
8	ME → SS	IMSI ATTACH	[Send IMSI of "001010123456786" to System Simulator]

PROACTIVE COMMAND: REFRESH 2.3.1

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Reset
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	04	82	02	81	82

27.22.4.7.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.3.

27.22.4.8 SET UP MENU and ENVELOPE MENU SELECTION

27.22.4.8.1 SET UP MENU (normal) and ENVELOPE MENU SELECTION

27.22.4.8.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.1.2   Conformance requirement

The ME shall support the SET UP MENU command as defined in:

- 3GPP TS 11.14 clause 5, clause 6.4.8, clause 6.6.7, clause 6.8, clause 6.11, clause 12.6, clause 12.9 and clause 13.4.

The ME shall support MENU SELECTION as defined in:

- 3GPP TS 11.14 [15] clause 4.4, clause 5.2, clause 6.4.8, clause 6.9, clause 8, clause 12.7 and clause 12.10.

27.22.4.8.1.3   Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that the ME replaces the current list of menu items with the list of menu items contained in the SET UP MENU command.

To verify that the ME removes the current list of menu items following receipt of a SET UP MENU command with no items.

To verify that the ME correctly passes the identifier of the selected menu item to the SIM using the ENVELOPE (MENU SELECTION) command.

To verify that when the help is available for the command and the user gas indicated the need to get help information on one of the items, the ME informs properly the SIM about an HELP REQUEST, using the MENU SELECTION mechanism.

27.22.4.8.1.4   Method of test

27.22.4.8.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.8.1.4.2 Procedure

Expected Sequence 1.1 (SET UP MENU and MENU SELECTION, without Help Request, Replace and Remove a Toolkit Menu)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" and "Item 4" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.1.1	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	
8	ME → USER	Display "Item 1", "Item 2", "Item 3", "Item 4"	
9	USER → ME	Select the "Item 2" Menu entry	
10	ME → SIM	Send the ENVELOPE 1.1.1: MENU SELECTION (Identifier of item: 2)	
11	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.1.2	[Second Set Up Menu, REPLACE Old Menu]
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.1.2	
14	ME → USER	Integrate the new menu header of "Toolkit Menu" into its menu system and have the menu items of "One" and "Two" under this header.	
15	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.1.2	[Command Performed Successfully]
16	SIM → ME	PROACTIVE SIM SESSION ENDED	
17	USER → ME	Select the Toolkit Menu "Toolkit Menu"	
18	ME → USER	Display "One", "Two"	
19	USER → ME	Select the "Two" menu entry	
20	ME → SIM	Send the ENVELOPE 1.1.2: MENU SELECTION (Identifier of item: 12)	
21	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.1.3 with SW1 / SW2 of '91 0F'.	[Third Set Up Menu, REMOVE Toolkit Menu]
22	ME → SIM	FETCH	
23	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.1.3	
24	ME → USER	Remove the menu "Toolkit Menu" from its menu system.	
25	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.1.3	[Command Performed Successfully]
26	SIM → ME	PROACTIVE SIM SESSION ENDED	
27	USER → ME	Has to unsuccessfully find the Toolkit Menu	

PROACTIVE COMMAND: SET UP MENU 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Menu"
Item
    Identifier of item: 1
    Text string of item: "Item 1"
Item
    Identifier of item: 2
    Text string of item: "Item 2"
Item
    Identifier of item: 3
    Text string of item: "Item 3"
Item
    Identifier of item: 4
    Text string of item: "Item 4"

Coding:

BER-TLV:	D0	3B	81	03	01	25	00	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32	8F	07	03	49	74
	65	6D	20	33	8F	07	04	49	74	65	6D	20
	34											

PROACTIVE COMMAND: SET UP MENU 1.1.2

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Menu"
Item
    Identifier of item: "11"
    Text string of item: "One"
Item
    Identifier of item: "12"
    Text string of item: "Two"

Coding:

BER-TLV:	D0	23	81	03	01	25	00	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	04	11	4F	6E	65	8F	04	12	54	77
	6F											

PROACTIVE COMMAND: SET UP MENU 1.1.3

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Item: Empty

Coding:

BER-TLV:	D0	0D	81	03	01	25	00	82	02	81	82	85
	00	8F	00									

TERMINAL RESPONSE: SET UP MENU 1.1.1, 1.1.2 and 1.1.3

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "no help information available"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

ENVELOPE 1.1.1: MENU SELECTION

Logically:

Menu selection
    Device identities
    Source device: Keypad
    Destination device: SIM
    Item identifier   02

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	02

ENVELOPE 1.1.2: MENU SELECTION

Logically:

Menu selection
    Device identities
    Source device: Keypad
    Destination device: SIM
    Item identifier   12

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	12

Expected Sequence 1.2 (SET UP MENU, Large Menu with many items or with large items or with Large Alpha Identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.2.1	[First Large Menu with many items, Fetch of FF bytes]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.2.1	
4	ME → USER	Integrate the new menu header of "LargeMenu1" into its menu system and have the menu items of "Zero", "One", "Two", Three", "Four", "Five", "Six", "Seven", "Eight", "Nine", "Alpha", "Bravo", "Charlie", "Delta", "Echo", "Fox-trot", "Black", "Brown", "Red", "Orange", "Yellow", "Green", "Blue", "Violet", "Grey", "White", "milli", "micro", "nano" and "pico" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.2.1	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit "LargeMenu1"	
8	ME → USER	Display "Zero", "One", "Two" … "pico"	
9	USER → ME	Select the "Orange" menu entry	
10	ME → SIM	Send the ENVELOPE 1.2.1: MENU SELECTION (Identifier of item: 0x3D)	
11	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.2.2	[Second Large Menu with large items, Fetch of F6 bytes]
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.2.2	
14	ME → USER	Integrate the new menu header of "LargeMenu2" into its menu system and have the menu items of "1 Call Forward Unconditional", "2 Call Forward On User Busy", "3 Call Forward On No Reply", "4 Call Forward On User Not Reachable", "5 Barring Of All Outgoing Calls", "6 Barring Of All Outgoing Int Calls" and "7 CLI Presentation" under this header.	
15	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.2.2	[Command Performed Successfully]
16	SIM → ME	PROACTIVE SIM SESSION ENDED	
17	USER → ME	Select the Toolkit Menu "LargeMenu2"	
18	ME → USER	Display "1 Call Forward Unconditional", "2 Call Forward On User Busy", "3 Call Forward On No Reply", "4 Call Forward On User Not Reachable", "5 Barring Of All Outgoing Calls", "6 Barring Of All Outgoing Int Calls", "7 CLI Presentation"	

Step	Direction	MESSAGE / Action	Comments
19	USER → ME	Select the "5 Barring Of All Outgoing Calls" menu entry	
20	ME → SIM	Send the ENVELOPE 1.2.2: MENU SELECTION (Identifier of item: 0xFB)	
21	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 1.2.3	[Third Large Menu with a Large Alpha Identifier and only one Short Item, Fetch of FF bytes]
22	ME → SIM	FETCH	
23	SIM → ME	PROACTIVE COMMAND SET UP MENU 1.2.3	
24	ME → USER	Integrate the new menu header of " The SIM shall supply a set of menu items, which shall be integrated with the menu system (or other MMI facility) in order to give the user the opportunity to choose one of these menu items at his own discretion. Each item comprises a sh" into it's menu system and have a menu item of "Y" under this header.	
25	ME → SIM	TERMINAL RESPONSE: SET UP MENU 1.2.3	[Command Performed Successfully]
26	SIM → ME	PROACTIVE SIM SESSION ENDED	
27	USER → ME	Select the Toolkit Menu "The SIM shall supply a set of menu items, which shall be integrated with the menu system (or other MMI facility) in order to give the user the opportunity to choose one of these menu items at his own discretion. Each item comprises a sh".	
28	ME → USER	Display "Y"	
29	USER → ME	Select the item "Y"	
30	ME → SIM	Send the ENVELOPE 1.1.6: MENU SELECTION (Identifier of item: 1)	

PROACTIVE COMMAND: SET UP MENU 1.2.1

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP MENU
        Command qualifier:     "00"
Device identities
        Source device:         SIM
        Destination device:    ME
        Alpha Identifier:      "LargeMenu1"
Item
        Identifier of item:    "50"
        Text string of item:   "Zero"
Item
        Identifier of item:    "4F"
        Text string of item:   "One"
Item
        Identifier of item:    "4E"
        Text string of item:   "Two"
```

Item
    Identifier of item: "4D"
    Text string of item: "Three"
Item
    Identifier of item: "4C"
    Text string of item: "Four"
Item
    Identifier of item: "4B"
    Text string of item: "Five"
Item
    Identifier of item: "4A"
    Text string of item: "Six"
Item
    Identifier of item: "49"
    Text string of item: "Seven"
Item
    Identifier of item: "48"
    Text string of item: "Eight"
Item
    Identifier of item: "47"
    Text string of item: "Nine"
Item
    Identifier of item: "46"
    Text string of item: "Alpha"
Item
    Identifier of item: "45"
    Text string of item: "Bravo"
Item
    Identifier of item: "44"
    Text string of item: "Charlie"
Item
    Identifier of item: "43"
    Text string of item: "Delta"
Item
    Identifier of item: "42"
    Text string of item: "Echo"
Item
    Identifier of item: "41"
    Text string of item: "Fox-trot"
Item
    Identifier of item: "40"
    Text string of item: "Black"
Item
    Identifier of item: "3F"
    Text string of item: "Brown"
Item
    Identifier of item: "3E"
    Text string of item: "Red"
Item
    Identifier of item: "3D"
    Text string of item: "Orange"
Item
    Identifier of item: "3C"
    Text string of item: "Yellow"
Item
    Identifier of item: "3B"
    Text string of item: "Green"
Item
    Identifier of item: "3A"
    Text string of item: "Blue"

Item
  Identifier of item: "39"
  Text string of item: "Violet"

Item
  Identifier of item: "38"
  Text string of item: "Grey"

Item
  Identifier of item: "37"
  Text string of item: "White"

Item
  Identifier of item: "36"
  Text string of item: "milli"

Item
  Identifier of item: "35"
  Text string of item: "micro"

Item
  Identifier of item: "34"
  Text string of item: "nano"

Item
  Identifier of item: "33"
  Text string of item: "pico"

Coding:

BER-TLV:	D0	81	FC	81	03	01	25	00	82	02	81	82
	85	0A	4C	61	72	67	65	4D	65	6E	75	31
	8F	05	50	5A	65	72	6F	8F	04	4F	4F	6E
	65	8F	04	4E	54	77	6F	8F	06	4D	54	68
	72	65	65	8F	05	4C	46	6F	75	72	8F	05
	4B	46	69	76	65	8F	04	4A	53	69	78	8F
	06	49	53	65	76	65	6E	8F	06	48	45	69
	67	68	74	8F	05	47	4E	69	6E	65	8F	06
	46	41	6C	70	68	61	8F	06	45	42	72	61
	76	6F	8F	08	44	43	68	61	72	6C	69	65
	8F	06	43	44	65	6C	74	61	8F	05	42	45
	63	68	6F	8F	09	41	46	6F	78	2D	74	72
	6F	74	8F	06	40	42	6C	61	63	6B	8F	06
	3F	42	72	6F	77	6E	8F	04	3E	52	65	64
	8F	07	3D	4F	72	61	6E	67	65	8F	07	3C
	59	65	6C	6C	6F	77	8F	06	3B	47	72	65
	65	6E	8F	05	3A	42	6C	75	65	8F	07	39
	56	69	6F	6C	65	74	8F	05	38	47	72	65
	79	8F	06	37	57	68	69	74	65	8F	06	36
	6D	69	6C	6C	69	8F	06	35	6D	69	63	72
	6F	8F	05	34	6E	61	6E	6F	8F	05	33	70
	69	63	6F									

PROACTIVE COMMAND: SET UP MENU 1.2.2

Logically:

Command details
  Command number: 1
  Command type: SET UP MENU
  Command qualifier: "00"
Device identities
  Source device: SIM
  Destination device: ME
  Alpha Identifier: "LargeMenu2"
Item
  Identifier of item: "FF"
  Text string of item: "1 Call Forward Unconditional"

Item
    Identifier of item: "FE"
    Text string of item: "2 Call Forward On User Busy"
Item
    Identifier of item: "FD"
    Text string of item: "3 Call Forward On No Reply"
Item
    Identifier of item: "FC"
    Text string of item: "4 Call Forward On User Not Reachable"
Item
    Identifier of item: "FB"
    Text string of item: "5 Barring Of All Outgoing Calls"
Item
    Identifier of item: "FA"
    Text string of item: "6 Barring Of All Outgoing Int Calls"
Item
    Identifier of item: "F9"
    Text string of item: "7 CLI Presentation"

Coding:

BER-TLV:	D0	81	F3	81	03	01	25	00	82	02	81	82
	85	0A	4C	61	72	67	65	4D	65	6E	75	32
	8F	1D	FF	31	20	43	61	6C	6C	20	46	6F
	72	77	61	72	64	20	55	6E	63	6F	6E	64
	69	74	69	6F	6E	61	6C	8F	1C	FE	32	20
	43	61	6C	6C	20	46	6F	72	77	61	72	64
	20	4F	6E	20	55	73	65	72	20	42	75	73
	79	8F	1B	FD	33	20	43	61	6C	6C	20	46
	6F	72	77	61	72	64	20	4F	6E	20	4E	6F
	20	52	65	70	6C	79	8F	25	FC	34	20	43
	61	6C	6C	20	46	6F	72	77	61	72	64	20
	4F	6E	20	55	73	65	72	20	4E	6F	74	20
	52	65	61	63	68	61	62	6C	65	8F	20	FB
	35	20	42	61	72	72	69	6E	67	20	4F	66
	20	41	6C	6C	20	4F	75	74	67	6F	69	6E
	67	20	43	61	6C	6C	73	8F	24	FA	36	20
	42	61	72	72	69	6E	67	20	4F	66	20	41
	6C	6C	20	4F	75	74	67	6F	69	6E	67	20
	49	6E	74	20	43	61	6C	6C	73	8F	13	F9
	37	20	43	4C	49	20	50	72	65	73	65	6E
	74	61	74	69	6F	6E						

PROACTIVE COMMAND: SET UP MENU 1.2.3

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha Identifier: "The SIM shall supply a set of menu items, which shall be integrated with the menu system (or other MMI facility) in order to give the user the opportunity to choose one of these menu items at his own discretion. Each item comprises a sh"
Item
    Identifier of item: "01"
    Text string of item: "Y"

Coding:

BER-TLV:	D0	81	FC	81	03	01	25	00	82	02	81	82
	85	81	EC	54	68	65	20	53	49	4D	20	73
	68	61	6C	6C	20	73	75	70	70	6C	79	20
	61	20	73	65	74	20	6F	66	20	6D	65	6E
	75	20	69	74	65	6D	73	2C	20	77	68	69
	63	68	20	73	68	61	6C	6C	20	62	65	20
	69	6E	74	65	67	72	61	74	65	64	20	77
	69	74	68	20	74	68	65	20	6D	65	6E	75
	20	73	79	73	74	65	6D	20	28	6F	72	20
	6F	74	68	65	72	20	4D	4D	49	20	66	61
	63	69	6C	69	74	79	29	20	69	6E	20	6F
	72	64	65	72	20	74	6F	20	67	69	76	65
	20	74	68	65	20	75	73	65	72	20	74	68
	65	20	6F	70	70	6F	72	74	75	6E	69	74
	79	20	74	6F	20	63	68	6F	6F	73	65	20
	6F	6E	65	20	6F	66	20	74	68	65	73	65
	20	6D	65	6E	75	20	69	74	65	6D	73	20
	61	74	20	68	69	73	20	6F	77	6E	20	64
	69	73	63	72	65	74	69	6F	6E	2E	20	45
	61	63	68	20	69	74	65	6D	20	63	6F	6D
	70	72	69	73	65	73	20	61	20	73	68	8F
	02	01	59									

TERMINAL RESPONSE: SET UP MENU 1.2.1, 1.2.2 and 1.2.3

Logically:

    Command details
        Command number: 1
        Command type: SET UP MENU
        Command qualifier: "no help information available"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

ENVELOPE 1.2.1: MENU SELECTION

Logically:

    Menu selection
        Device identities
        Source device: Keypad
        Destination device: SIM
        Item identifier   3D

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	3D

ENVELOPE 1.2.2: MENU SELECTION

Logically:

```
Menu selection
        Device identities
        Source device:         Keypad
        Destination device:    SIM
        Item identifier        FB
```

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	FB

ENVELOPE 1.2.3: MENU SELECTION

Logically:

```
Menu selection
        Device identities
        Source device:         Keypad
        Destination device:    SIM
        Item identifier        01
```

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	01

The following table details the test requirements with relation to the tested features:

Proactive SIM Command Number	Proactive SIM Command Facilities		
	Alpha Identifier Length	Number of items	Maximum length of item
1.1.1	12	4	6
1.1.2	12	2	3
1.1.3	10	0	-
1.2.1	10	30	8
1.2.2	10	7	37
1.2.3	235	1	1

27.22.4.8.1.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.1 and in expected sequence 1.2.

27.22.4.8.2   SET UP MENU (help request support) and ENVELOPE MENU SELECTION

27.22.4.8.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.8.2.2   Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP TS 11.14 [15] clause 12.21.

27.22.4.8.2.3   Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that when the help is available for the command and the user has indicated the need to get help information on one of the items, the ME informs properly the SIM about an HELP REQUEST, using the MENU SELECTION mechanism.

To verify that the ME correctly passes the identifier of the selected menu item to the SIM using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.2.4 Method of test

27.22.4.8.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.8.2.4.2 Procedure

Expected Sequence 2.1 (SET UP MENU and MENU SELECTION, with Help Request, Replace and Remove a Toolkit Menu)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 2.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 2.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" and "Item 4" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 2.1.1	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	
8	ME → USER	Display "Item 1", "Item 2", "Item 3", "Item 4"	
9	USER → ME	Select the Help Request on "Item 2" Menu entry	
10	ME → SIM	Send the ENVELOPE 2.1.1: MENU SELECTION (Identifier of item: 2)	

PROACTIVE COMMAND: SET UP MENU 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP MENU
        Command qualifier: "80"
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "Toolkit Menu"
    Item
        Identifier of item: 1

	Text string of item:	"Item 1"
Item		
	Identifier of item:	2
	Text string of item:	"Item 2"
Item		
	Identifier of item:	3
	Text string of item:	"Item 3"
	Item	
	Identifier of item:4	
	Text string of item:	"Item 4"

Coding:

BER-TLV:	D0	3B	81	03	01	25	80	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32	8F	07	03	49	74
	65	6D	20	33	8F	07	04	49	74	65	6D	20
	34											

TERMINAL RESPONSE: SET UP MENU 2.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: " help information available"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	25	80	82	02	82	81	83	01	00

ENVELOPE 2.1.1: MENU SELECTION

Logically:

Menu selection
    Device identities
        Source device: Keypad
        Destination device: SIM
    Item identifier 02
    Help request tag

Coding:

BER-TLV:	D3	09	82	02	01	81	90	01	02	15	00

27.22.4.8.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.8.3 SET UP MENU (next action support) and ENVELOPE MENU SELECTION

27.22.4.8.3.1 Definition and applicability

See clause 3.2.2.

If the SIM provides an Items Next Action Indicator data object, the comprehension required flag shall be set to '0'.

27.22.4.8.3.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP TS 11.14 [15] clause 12.24.

27.22.4.8.3.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that the next action indicator is supported.

To verify that the ME correctly passes the identifier of the selected menu item to the SIM using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.3.4 Method of test

27.22.4.8.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.8.3.4.2 Procedure

Expected Sequence 3.1 (SET UP MENU, next action indicator "Send SM", "Set Up Call", "Launch Browser", "Provide Local Information", successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 3.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 3.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" and "Item 4" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 3.1.1	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	
8	ME → USER	Display "Item 1", "Item 2", "Item 3", "Item 4"	The ME may indicate to the user the consequences of performing the selection of an item.
9	USER → ME	Navigate in the items, then select "Item 2".	The ME may indicate to the user the consequences of performing the selection of an item.
10	ME → SIM	Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2)	

ENVELOPE 3.1.1: MENU SELECTION

Logically:

Menu selection
    Device identities
        Source device: Keypad
        Destination device: SIM
    Item identifier   02

Coding:

BER-TLV:	D3	07	82	02	01	81	90	01	02		

PROACTIVE COMMAND: SET UP MENU 3.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Menu"
Item
    Identifier of item: 1
    Text string of item: "Item 1"
Item
    Identifier of item: 2

	Text string of item:	"Item 2"
Item		
	Identifier of item:	3
	Text string of item:	"Item 3"
Item		
	Identifier of item:	4
	Text string of item:	"Item 4"
Items next action indicator list		
	List:	"Send SM", "Set Up Call", "Launch Browser", "Provide Local Information"

Coding:

BER-TLV:	D0	41	81	03	01	25	00	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32	8F	07	03	49	74
	65	6D	20	33	8F	07	04	49	74	65	6D	20
	34	18	04	13	10	15	26					

TERMINAL RESPONSE: SET UP MENU 3.1.1

Logically:

Command details		
	Command number:	1
	Command type:	SET UP MENU
	Command qualifier:	"no help information available"
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

27.22.4.8.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.8.4 SET UP MENU (display of icons) and ENVELOPE MENU SELECTION

27.22.4.8.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.4.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- GSM 11.14 clause 6.5.4, 12.31 and 12.32.

27.22.4.8.4.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that icons are displayed with the command Set Up Menu in the Alpha Identifier and Items Data Objects. To verify that the ME correctly passes the identifier of the selected menu item to the SIM using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.4.4 Method of test

27.22.4.8.4.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.8.4.4.2 Procedure

Expected Sequence 4.1A (SET UP MENU, BASIC ICON NOT SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 4.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 4.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 4.1.1A	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	Verify the icon is displayed with alpha id.
8	ME → USER	Display "Item 1", "Item 2", "Item 3".	
9	USER → ME	Navigate in the items, then select "Item 2".	Verify icons are displayed for each item.
10	ME → SIM	Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2)	

PROACTIVE COMMAND: SET UP MENU 4.1.1

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP MENU
        Command qualifier:     "00"
Device identities
        Source device:         SIM
        Destination device:    ME
        Alpha identifier:      "Toolkit Menu"
Item
        Identifier of item:    1
        Text string of item:   "Item 1"
Item
        Identifier of item:    2
        Text string of item:   "Item 2"
Item
        Identifier of item:    3
        Text string of item:   "Item 3"
```

Icon identifier
    Icon qualifier: icon is not self explanatory
    Icon identifier: record 1 EF (IMG)
Item icon identifier list
    Icon qualifier: icon is not self explanatory
    Icon identifier list: record 5 EF (IMG), record 5 EF (IMG), record 5 EF (IMG)

Coding:

BER-TLV:	D0	3C	81	03	01	25	00	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32	8F	07	03	49	74
	65	6D	20	33	9E	02	01	01	9F	04	01	05
	05	05										

TERMINAL RESPONSE: SET UP MENU 4.1.1A

Logically:

Command details
    Command number: 1
    Command type: SET UP MENU
    Command qualifier: "no help information available"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

Expected Sequence 4.1B (SET UP MENU, BASIC ICON NOT SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 4.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 4.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 4.1.1B	[Command performed successfully, but requested icon could not be displayed]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	No icon is displayed with alpha id.
8	ME → USER	Display "Item 1", "Item 2", "Item 3".	
9	USER → ME	Navigate in the items, then select "Item 2".	no icon is displayed for each item.
10	ME → SIM	Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2)	

TERMINAL RESPONSE: SET UP MENU 4.1.1B

Logically:

```
Command details
       Command number:        1
       Command type:          SET UP MENU
       Command qualifier:     "no help information available"
Device identities
       Source device:         ME
       Destination device:    SIM
Result
       General Result:        Command performed successfully but requested icon could not be displayed
```

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	04

Expected Sequence 4.2A (SET UP MENU, BASIC ICON SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 4.2.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 4.2.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 4.2.1A	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	Verify the icon is displayed in alpha id.
8	ME → USER	Display "Item 1", "Item 2", "Item 3".	
9	USER → ME	Navigate in the items, then select "Item 2".	Verify icons are displayed for each item.
10	ME → SIM	Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2)	

PROACTIVE COMMAND: SET UP MENU 4.2.1

Logically:

```
Command details
       Command number:        1
       Command type:          SET UP MENU
       Command qualifier:     "00"
Device identities
       Source device:         SIM
       Destination device:    ME
       Alpha identifier:      "Toolkit Menu"
Item
       Identifier of item:    1
       Text string of item:   "Item 1"
Item
       Identifier of item:    2
```

	Text string of item:	"Item 2"

Item

	Identifier of item:	3
	Text string of item:	"Item 3"

Icon identifier

	Icon qualifier:	icon is self explanatory
	Icon identifier:	record 1 EF (IMG)

Item icon identifier list

	Icon qualifier:	icon is self explanatory
	Icon identifier list:	record 5 EF (IMG), record 5 EF (IMG), record 5 EF (IMG)

Coding:

BER-TLV:	D0	3C	81	03	01	25	00	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32	8F	07	03	49	74
	65	6D	20	33	9E	02	00	01	9F	04	00	05
	05	05										

TERMINAL RESPONSE: SET UP MENU 4.2.1A

Logically:

Command details

	Command number:	1
	Command type:	SET UP MENU
	Command qualifier:	"no help information available"

Device identities

	Source device:	ME
	Destination device:	SIM

Result

	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

Expected Sequence 4.2B (SET UP MENU, BASIC ICON SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 4.2.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 4.2.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2", "Item 3" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 4.2.1B	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	No icon is displayed in alpha id.
8	ME → USER	Display "Item 1", "Item 2", "Item 3".	

| 9 | USER → ME | Navigate in the items, then select "Item 2". | no icon is displayed for each item. |
| 10 | ME → SIM | Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2) | |

TERMINAL RESPONSE: SET UP MENU 4.2.1B

Logically:

    Command details
        Command number: 1
        Command type: SET UP MENU
        Command qualifier: "no help information available"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed

Coding:

| BER-TLV: | 81 | 03 | 01 | 25 | 00 | 82 | 02 | 82 | 81 | 83 | 01 | 04 |

27.22.4.8.4.5 Test requirement

The ME shall operate in the manner defined in expected sequences 4.1A to 4.2B.

27.22.4.8.5 SET UP MENU (soft keys support) and ENVELOPE MENU SELECTION

27.22.4.8.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.5.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1.

27.22.4.8.5.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive SIM command, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that if soft key preferred is indicated in the command details and soft key for SET UP MENU is supported by the ME and the number of icon items does not exceed the number of soft keys available, then the ME displays those icons as soft key.

To verify that the ME correctly passes the identifier of the selected menu item to the SIM using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.5.4 Method of test

27.22.4.8.5.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.8.5.4.2 Procedure

Expected Sequence 5.1 (SET UP MENU, SOFT KEY PREFERRED, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP MENU 5.1.1	[First Set Up Menu]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND SET UP MENU 5.1.1	
4	ME → USER	Integrate the menu header of "Toolkit Menu" into its menu system and have the menu items of "Item 1", "Item 2" under this header.	
5	ME → SIM	TERMINAL RESPONSE: SET UP MENU 5.1.1	[Command Performed Successfully]
6	SIM → ME	PROACTIVE SIM SESSION ENDED	
7	USER → ME	Select the Toolkit Menu "Toolkit Menu"	
8	ME → USER	Display "Item 1", "Item 2"	
9	USER → ME	Navigate in the items, then select "Item 2".	Verify we can select items through soft keys
10	ME → SIM	Send the ENVELOPE 3.1.1: MENU SELECTION (Identifier of item: 2)	

PROACTIVE COMMAND: SET UP MENU 5.1.1

Logically:

        Command details
                Command number: 1
                Command type: SET UP MENU
                Command qualifier: "01" (selection using soft key preferred)
        Device identities
                Source device: SIM
                Destination device: ME
                Alpha identifier: "Toolkit Menu"
        Item
                Identifier of item: 1
                Text string of item: "Item 1"
        Item
                Identifier of item: 2
                Text string of item: "Item 2"

Coding:

BER-TLV:	D0	29	81	03	01	25	01	82	02	81	82	85
	0C	54	6F	6F	6C	6B	69	74	20	4D	65	6E
	75	8F	07	01	49	74	65	6D	20	31	8F	07
	02	49	74	65	6D	20	32					

TERMINAL RESPONSE: SET UP MENU 5.1.1

Logically:

        Command details
                Command number: 1
                Command type: SET UP MENU
                Command qualifier: "no help information available"

Device identities
        Source device: ME
        Destination device: SIM
Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	25	00	82	02	82	81	83	01	00

27.22.4.8.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 5.1.

27.22.4.9 SELECT ITEM

27.22.4.9.1 SELECT ITEM (mandatory features for ME supporting SELECT ITEM)

27.22.4.9.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.1.2 Conformance requirement

The ME shall support the Proactive SIM: Select Item facility as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 5, clause 6.4.9, clause 6.6.8, clause 6.8, clause 12.6, clause 13.4 and clause 14.

27.22.4.9.1.3 Test purpose

To verify that the ME correctly presents the set of items contained in the SELECT ITEM proactive SIM command, and returns a TERMINAL RESPONSE command to the SIM with the identifier of the item chosen.

To verify that the ME allows a SELECT ITEM proactive SIM command within the maximum 255 byte BER-TLV boundary.

To verify that the ME returns a TERMINAL RESPONSE with "Proactive SIM application session terminated by the user", if the user has indicated the need to end the proactive SIM session.

To verify that the ME returns a TERMINAL RESPONSE with "Backwards move in the proactive SIM application session requested by the user", if the user has indicated the need to go backwards in the proactive SIM application session.

27.22.4.9.1.4 Method of test

27.22.4.9.1.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.1.4.2   Procedure

Expected Sequence 1.1 (SELECT ITEM, mandatory features, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.1.1	
4	ME → USER	Display items of "Item 1", "Item 2", "Item 3" and "Item 4" under the header of "Toolkit Select".	
5	USER → ME	Select "Item 2".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.1.1	Command performed successfully

PROACTIVE COMMAND: SELECT ITEM 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "Toolkit Select"
    Item
        Identifier of item: 1
        Text string of item: "Item 1"
    Item
        Identifier of item: 2
        Text string of item: "Item 2"
    Item
        Identifier of item: 3
        Text string of item: "Item 3"
    Item
        Identifier of item: 4
        Text string of item: "Item 4"

Coding:

BER-TLV:	D0	3D	81	03	01	24	00	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33	8F	07	04	49	74	65
	6D	20	34									

TERMINAL RESPONSE: SELECT ITEM 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: ME

      Destination device: SIM
Result
      General Result: Command performed successfully
Item identifier
      Identifier of item chosen: 02

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	02									

Expected Sequence 1.2 (SELECT ITEM, large menu, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.2.1	
4	ME → USER	Present the items of "Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine", "Alpha", "Bravo", "Charlie", "Delta", "Echo", "Fox-trot", "Black", "Brown", "Red", "Orange", "Yellow", "Green", "Blue", "Violet", "Grey", "White", "milli", "micro", "nano" and "pico" under the header of "LargeMenu1"	
5	USER → ME	Select item "Orange".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.2.1	Command performed successfully

PROACTIVE COMMAND: SELECT ITEM 1.2.1

Logically:

Command details
      Command number: 1
      Command type: SELECT ITEM
      Command qualifier: "00"
Device identities
      Source device: SIM
      Destination device: ME
      Alpha identifier: "LargeMenu1"
Item
      Identifier of item: "50"
      Text string of item: "Zero"
Item
      Identifier of item: "4F"
      Text string of item: "One"
Item
      Identifier of item: "4E"
      Text string of item: "Two"
Item
      Identifier of item: "4D"
      Text string of item: "Three"
Item
      Identifier of item: "4C"
      Text string of item: "Four"
Item
      Identifier of item: "4B"
      Text string of item: "Five"

Item

Identifier of item:　　　"4A"
Text string of item:　　"Six"

Item

Identifier of item:　　　"49"
Text string of item:　　"Seven"

Item

Identifier of item:　　　"48"
Text string of item:　　"Eight"

Item

Identifier of item:　　　"47"
Text string of item:　　"Nine"

Item

Identifier of item:　　　"46"
Text string of item:　　"Alpha"

Item

Identifier of item:　　　"45"
Text string of item:　　"Bravo"

Item

Identifier of item:　　　"44"
Text string of item:　　"Charlie"

Item

Identifier of item:　　　"43"
Text string of item:　　"Delta"

Item

Identifier of item:　　　"42"
Text string of item:　　"Echo"

Item

Identifier of item:　　　"41"
Text string of item:　　"Fox-trot"

Item

Identifier of item:　　　"40"
Text string of item:　　"Black"

Item

Identifier of item:　　　"3F"
Text string of item:　　"Brown"

Item

Identifier of item:　　　"3E"
Text string of item:　　"Red"

Item

Identifier of item:　　　"3D"
Text string of item:　　"Orange"

Item

Identifier of item:　　　"3C"
Text string of item:　　"Yellow"

Item

Identifier of item:　　　"3B"
Text string of item:　　"Green"

Item

Identifier of item:　　　"3A"
Text string of item:　　"Blue"

Item

Identifier of item:　　　"39"
Text string of item:　　"Violet"

Item

Identifier of item:　　　"38"
Text string of item:　　"Grey"

Item

Identifier of item:　　　"37"
Text string of item:　　"White"

Item

Identifier of item:　　　"36"

	Text string of item:	"milli"
Item		
	Identifier of item:	"35"
	Text string of item:	"micro"
Item		
	Identifier of item:	"34"
	Text string of item:	"nano"
Item		
	Identifier of item:	"33"
	Text string of item:	"pico"

Coding:

BER-TLV:	D0	81	FC	81	03	01	24	00	82	02	81	82
	85	0A	4C	61	72	67	65	4D	65	6E	75	31
	8F	05	50	5A	65	72	6F	8F	04	4F	4F	6E
	65	8F	04	4E	54	77	6F	8F	06	4D	54	68
	72	65	65	8F	05	4C	46	6F	75	72	8F	05
	4B	46	69	76	65	8F	04	4A	53	69	78	8F
	06	49	53	65	76	65	6E	8F	06	48	45	69
	67	68	74	8F	05	47	4E	69	6E	65	8F	06
	46	41	6C	70	68	61	8F	06	45	42	72	61
	76	6F	8F	08	44	43	68	61	72	6C	69	65
	8F	06	43	44	65	6C	74	61	8F	05	42	45
	63	68	6F	8F	09	41	46	6F	78	2D	74	72
	6F	74	8F	06	40	42	6C	61	63	6B	8F	06
	3F	42	72	6F	77	6E	8F	04	3E	52	65	64
	8F	07	3D	4F	72	61	6E	67	65	8F	07	3C
	59	65	6C	6C	6F	77	8F	06	3B	47	72	65
	65	6E	8F	05	3A	42	6C	75	65	8F	07	39
	56	69	6F	6C	65	74	8F	05	38	47	72	65
	79	8F	06	37	57	68	69	74	65	8F	06	36
	6D	69	6C	6C	69	8F	06	35	6D	69	63	72
	6F	8F	05	34	6E	61	6E	6F	8F	05	33	70
	69	63	6F									

TERMINAL RESPONSE: SELECT ITEM 1.2.1

Logically:

Command details		
	Command number:	1
	Command type:	SELECT ITEM
	Command qualifier:	"00"
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Item identifier		
	Identifier of item chosen:	3D

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	3D									

Expected Sequence 1.3 (SELECT ITEM, call options, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.3.1	
4	ME → USER	Present the items of " Call Forwarding Unconditional", "Call Forward On User Busy", "Call Forward On No Reply", "Call Forward On User Not Reachable", "Barring Of All Outgoing Calls", "Barring Of All Outgoing International Calls" and "CLI Presentation" under the header of " LargeMenu2	
5	USER → ME	Select item "Barring Of All Outgoing Calls".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.3.1	Command performed successfully
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND : SELECT ITEM 1.3.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "LargeMenu2"
Item
    Identifier of item: "FF"
    Text string of item: "Call Forwarding Unconditional"
Item
    Identifier of item: "FE"
    Text string of item: "Call Forwarding On User Busy"
Item
    Identifier of item: "FD"
    Text string of item: "Call Forwarding On No Reply"
Item
    Identifier of item: "FC"
    Text string of item: "Call Forwarding On User Not Reachable"
Item
    Identifier of item: "FB"
    Text string of item: "Barring Of All Outgoing Calls"
Item
    Identifier of item: "FA"
    Text string of item: "Barring Of All Outgoing International Calls"
Item
    Identifier of item: "F9"
    Text string of item: "CLI Presentation"

Coding:

BER-TLV:	D0	81	FB	81	03	01	24	00	82	02	81	82
	85	0A	4C	61	72	67	65	4D	65	6E	75	32
	8F	1E	FF	43	61	6C	6C	20	46	6F	72	77
	61	72	64	69	6E	67	20	55	6E	63	6F	6E
	64	69	74	69	6F	6E	61	6C	8F	1D	FE	43
	61	6C	6C	20	46	6F	72	77	61	72	64	69
	6E	67	20	4F	6E	20	55	73	65	72	20	42
	75	73	79	8F	1C	FD	43	61	6C	6C	20	46
	6F	72	77	61	72	64	69	6E	67	20	4F	6E
	20	4E	6F	20	52	65	70	6C	79	8F	26	FC
	43	61	6C	6C	20	46	6F	72	77	61	72	64
	69	6E	67	20	4F	6E	20	55	73	65	72	20
	4E	6F	74	20	52	65	61	63	68	61	62	6C
	65	8F	1E	FB	42	61	72	72	69	6E	67	20
	4F	66	20	41	6C	6C	20	4F	75	74	67	6F
	69	6E	67	20	43	61	6C	6C	73	8F	2C	FA
	42	61	72	72	69	6E	67	20	4F	66	20	41
	6C	6C	20	4F	75	74	67	6F	69	6E	67	20
	49	6E	74	65	72	6E	61	74	69	6F	6E	61
	6C	20	43	61	6C	6C	73	8F	11	F9	43	4C
	49	20	50	72	65	73	65	6E	74	61	74	69
	6F	6E										

TERMINAL RESPONSE: SELECT ITEM 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Item identifier
        Identifier of item chosen: FB

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	FB									

Expected Sequence 1.4 (SELECT ITEM, backward move by user, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.4.1	[
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.4.1	
4	ME → USER	Present the items of "One" and "Two" under the header of "Select Item".	
5	USER → ME	Indicate to go backwards in the proactive SIM application session.	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.4.1A or TERMINAL RESPONSE: SELECT ITEM 1.4.1B	Backward move in the proactive SIM application session requested by user
7	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.4.2	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.4.2	
10	ME → USER	Present the items of "One" and "Two" under the header of "Select Item".	
11	USER → ME	Indicate to end the proactive SIM application and return the ME to normal operation.	
12	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.4.2A or TERMINAL RESPONSE: SELECT ITEM 1.4.2B	Proactive SIM application terminated by the user
13	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: SELECT ITEM 1.4.1 and 1.4.2

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Select Item"
Item
    Identifier of item: "11"
    Text string of item: "One"
Item
    Identifier of item: "12"
    Text string of item: "Two"

Coding:

BER-TLV:	D0	22	81	03	01	24	00	82	02	81	82	85
	0B	53	65	6C	65	63	74	20	49	74	65	6D
	8F	04	11	4F	6E	65	8F	04	12	54	77	6F

TERMINAL RESPONSE: SELECT ITEM 1.4.1A

Logically:

```
Command details
        Command number:        1
        Command type:          SELECT ITEM
        Command qualifier:     "00"
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        backward move in the proactive SIM session requested by the user
```

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	11

TERMINAL RESPONSE: SELECT ITEM 1.4.1B

Logically:

```
Command details
        Command number:        1
        Command type:          SELECT ITEM
        Command qualifier:     "00"
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        backward move in the proactive SIM session requested by the user
Item identifier
        Identifier of item chosen:   XX
```

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	11
	90	01	XX									

TERMINAL RESPONSE: SELECT ITEM 1.4.2A

Logically:

```
Command details
        Command number:        1
        Command type:          SELECT ITEM
        Command qualifier:     "00"
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        proactive SIM session terminated by the user
```

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	10

TERMINAL RESPONSE: SELECT ITEM 1.4.2B

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: proactive SIM session terminated by the user
Item identifier
    Identifier of item chosen: XX

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	10
	90	01	XX									

Expected Sequence 1.5 (SELECT ITEM, "Y", successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.5.1	
4	ME → USER	Present the items of "Y" under the header of "The SIM shall supply a set of items from which the user may choose one. Each item comprises a short identifier (used to indicate the selection) and a text string. Optionally the SIM may include an alpha identifier. The alpha identifier i".	
5	USER → ME	Select item "Y"	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.5.1	Command performed successfully
7	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: SELECT ITEM 1.5.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "The SIM shall supply a set of items from which the user may choose one. Each item comprises a short identifier (used to indicate the selection) and a text string. Optionally the SIM may include an alpha identifier. The alpha identifier i"
Item
    Identifier of item: "01"
    Text string of item: "Y"

Coding:

BER-TLV:	D0	81	FD	81	03	01	24	00	82	02	81	82
	85	81	ED	54	68	65	20	53	49	4D	20	73
	68	61	6C	6C	20	73	75	70	70	6C	79	20
	61	20	73	65	74	20	6F	66	20	69	74	65
	6D	73	20	66	72	6F	6D	20	77	68	69	63
	68	20	74	68	65	20	75	73	65	72	20	6D
	61	79	20	63	68	6F	6F	73	65	20	6F	6E
	65	2E	20	45	61	63	68	20	69	74	65	6D
	20	63	6F	6D	70	72	69	73	65	73	20	61
	20	73	68	6F	72	74	20	69	64	65	6E	74
	69	66	69	65	72	20	28	75	73	65	64	20
	74	6F	20	69	6E	64	69	63	61	74	65	20
	74	68	65	20	73	65	6C	65	63	74	69	6F
	6E	29	20	61	6E	64	20	61	20	74	65	78
	74	20	73	74	72	69	6E	67	2E	20	4F	70
	74	69	6F	6E	61	6C	6C	79	20	74	68	65
	20	53	49	4D	20	6D	61	79	20	69	6E	63
	6C	75	64	65	20	61	6E	20	61	6C	70	68
	61	20	69	64	65	6E	74	69	66	69	65	72
	2E	20	54	68	65	20	61	6C	70	68	61	20
	69	64	65	6E	74	69	66	69	65	72	20	
	69	8F	02	01	59							

TERMINAL RESPONSE: SELECT ITEM 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Item identifier
        Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	01									

Expected Sequence 1.6 (SELECT ITEM, Large menu, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 1.6.1	
4	ME → USER	Present the items of "1 Call Forward Unconditional", "2 Call Forward On User Busy", "3 Call Forward On No Reply", "4 Call Forward On User Not Reachable", "5 Barring Of All Outgoing Calls", "6 Barring Of All Outgoing Int Calls" and "7 CLI Presentation" under the header of "0LargeMenu".	
5	USER → ME	Select item "5 Barring Of All Outgoing Calls".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 1.6.1	Command performed successfully

PROACTIVE COMMAND : SELECT ITEM 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "0LargeMenu"
    Item
        Identifier of item: "FF"
        Text string of item: "1 Call Forward Unconditional"
    Item
        Identifier of item: "FE"
        Text string of item: "2 Call Forward On User Busy"
    Item
        Identifier of item: "FD"
        Text string of item: "3 Call Forward On No Reply"
    Item
        Identifier of item: "FC"
        Text string of item: "4 Call Forward On User Not Reachable"
    Item
        Identifier of item: "FB"
        Text string of item: "5 Barring Of All Outgoing Calls"
    Item
        Identifier of item: "FA"
        Text string of item: "6 Barring Of All Outgoing Int Calls"
    Item
        Identifier of item: "F9"
        Text string of item: "7 CLI Presentation"

Coding:

BER-TLV:	D0	81	F3	81	03	01	24	00	82	02	81	82
	85	0A	30	4C	61	72	67	65	4D	65	6E	75
	8F	1D	FF	31	20	43	61	6C	6C	20	46	6F
	72	77	61	72	64	20	55	6E	63	6F	6E	64
	69	74	69	6F	6E	61	6C	8F	1C	FE	32	20
	43	61	6C	6C	20	46	6F	72	77	61	72	64
	20	4F	6E	20	55	73	65	72	20	42	75	73
	79	8F	1B	FD	33	20	43	61	6C	6C	20	46
	6F	72	77	61	72	64	20	4F	6E	20	4E	6F
	20	52	65	70	6C	79	8F	25	FC	34	20	43
	61	6C	6C	20	46	6F	72	77	61	72	64	20
	4F	6E	20	55	73	65	72	20	4E	6F	74	20
	52	65	61	63	68	61	62	6C	65	8F	20	FB
	35	20	42	61	72	72	69	6E	67	20	4F	66
	20	41	6C	6C	20	4F	75	74	67	6F	69	6E
	67	20	43	61	6C	6C	73	8F	24	FA	36	20
	42	61	72	72	69	6E	67	20	4F	66	20	41
	6C	6C	20	4F	75	74	67	6F	69	6E	67	20
	49	6E	74	20	43	61	6C	6C	73	8F	13	F9
	37	20	43	4C	49	20	50	72	65	73	65	6E
	74	61	74	69	6F	6E						

TERMINAL RESPONSE: SELECT ITEM 1.5

Logically:

> Command details
>> Command number: 1
>> Command type: SELECT ITEM
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Item identifier
>> Identifier of item chosen: FB

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	FB									

The following table details the test commands with relation to the tested features:

Proactive SIM Command SELECT ITEM Number	Proactive SIM Command Facilities		
	Alpha Identifier Length	Number of items	Maximum length of item
1.1	14	4	6
1.2	10	30	8
1.3	10	7	43
1.4	11	2	3
1.5	236	1	1
1.6	10	7	37

27.22.4.9.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 (SELECT ITEM, mandatory features).

27.22.4.9.2   SELECT ITEM (next action support)

27.22.4.9.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.9.2.2   Conformance Requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.2.3   Test purpose

To verify that the mobile supports next action indicator mode.

27.22.4.9.2.4   Method of test

27.22.4.9.2.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.2.4.2   Procedure

Expected Sequence 2.1 (SELECT ITEM, next action indicator, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 2.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select". It presents also the following next action indicators: Send SM, Set Up Call, Provide Local Info.	
5	USER → ME	Navigate in the items, then select "Item 2". Check that next action indicators appear.	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 2.1.1	Command performed successfully

PROACTIVE COMMAND: SELECT ITEM 2.1.1

Logically:

```
Command details
        Command number:       1
        Command type:         SELECT ITEM
        Command qualifier:    "00"
Device identities
        Source device:        SIM
        Destination device:   ME
        Alpha identifier:     "Toolkit Select"
Item
        Identifier of item:   1
        Text string of item:  "Item 1"
```

Item
    Identifier of item: 2
    Text string of item: "Item 2"
Item
    Identifier of item: 3
    Text string of item: "Item 3"
Items next action indicator
    Items list   "Send SM", "Set Up Call", "Provide Local Info."

Coding:

BER-TLV:	D0	39	81	03	01	24	00	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33	18	03	13	10	26	

TERMINAL RESPONSE: SELECT ITEM 2.1.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Item identifier
    Identifier of item chosen: 02

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	02									

27.22.4.9.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1

27.22.4.9.3 SELECT ITEM (default item support)

27.22.4.9.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.3.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.3.3 Test purpose

To verify that the mobile supports "default item" mode.

27.22.4.9.3.4 Method of test

27.22.4.9.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.3.4.2 Procedure

Expected Sequence 3.1 (SELECT ITEM, default item, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 3.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	Check that "Item 2" is selected by default.
5	USER → ME	Navigate in the items, then select "Item 3".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 3.1.1	Command performed successfully

PROACTIVE COMMAND : SELECT ITEM 3.1.1

Logically:

```
Command details
    Command number:        1
    Command type:          SELECT ITEM
    Command qualifier:     "00"
Device identities
    Source device:         SIM
    Destination device:    ME
    Alpha identifier:      "Toolkit Select"
Item
    Identifier of item:    01
    Text string of item:   "Item 1"
Item
    Identifier of item:    02
    Text string of item:   "Item 2"
Item
    Identifier of item:    03
    Text string of item:   "Item 3"
Item identifier
    Identifier of item chosen   02
```

Coding:

BER-TLV:	D0	37	81	03	01	24	00	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33	90	01	02			

TERMINAL RESPONSE: SELECT ITEM 3.1.1

Logically:

> Command details
>> Command number: 1
>> Command type: SELECT ITEM
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Item identifier
>> Identifier of item chosen: 03

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	03									

27.22.4.9.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1

27.22.4.9.4 SELECT ITEM (help request support)

27.22.4.9.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.4.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.4.3 Test purpose

To verify that the mobile supports "help request" for the command Select Item.

27.22.4.9.4.4 Method of test

27.22.4.9.4.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.4.4.2 Procedure

Expected Sequence 4.1 (SELECT ITEM, help request, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 4.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 4.1.1	[Help information available]
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	
5	USER → ME	Navigate in the items until "Item 1".	
6	USER → ME	Select the Help Request on "Item 1" Menu entry	
7	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 4.1.1	[Help information required by the user]

PROACTIVE COMMAND : SELECT ITEM 4.1.1

Logically:

 Command details
  Command number: 1
  Command type: SELECT ITEM
  Command qualifier: "80" help information available
 Device identities
  Source device: SIM
  Destination device: ME
  Alpha identifier: "Toolkit Select"
 Item
  Identifier of item: 01
  Text string of item: "Item 1"
 Item
  Identifier of item: 02
  Text string of item: "Item 2"
 Item
  Identifier of item: 03
  Text string of item: "Item 3"

Coding:

BER-TLV:	D0	34	81	03	01	24	80	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33						

TERMINAL RESPONSE: SELECT ITEM 4.1.1

Logically:

 Command details
  Command number: 1
  Command type: SELECT ITEM
  Command qualifier: "80"
 Device identities
  Source device: ME
  Destination device: SIM
 Result
  General Result: Help information required by the user

Item identifier
> Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	80	82	02	82	81	83	01	13
	90	01	01									

27.22.4.9.4.5   Test requirement

The ME shall operate in the manner defined in expected sequence 4.1

27.22.4.9.5   SELECT ITEM (icons support)

27.22.4.9.5.1   Definition and applicability

See clause 3.2.2.

27.22.4.9.5.2   Conformance requirement

Same as clause 27.22.4.9.1.2 and 3GPP TS 11.14 [15] clause 12.31 and clause 12.32.

27.22.4.9.5.3   Test purpose

To verify that the mobile displays icons with the command Select Item.

27.22.4.9.5.4   Method of test

27.22.4.9.5.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.5.4.2   Procedure

Expected Sequence 5.1A (SELECT ITEM, BASIC ICON NOT SELF EXPLANATORY, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 5.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	Verify icons are displayed in the alpha identifier and in the 3 items.
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 5.1.1 A	[command performed successfully]

PROACTIVE COMMAND: SELECT ITEM 5.1.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Select"
Item
    Identifier of item: 01
    Text string of item: "Item 1"
Item
    Identifier of item: 02
    Text string of item: "Item 2"
Item
    Identifier of item: 03
    Text string of item: "Item 3"
Icon Identifier:
    Icon qualifier: "01" (icon is not self-explanatory)
    Icon Identifier: record 1 in EF$_{(IMG)}$
Item icon identifier list:
    Icon qualifier: "01" (icon is not self-explanatory)
    Icon Identifier: record 5 in EF$_{(IMG)}$, record 5 in EF$_{(IMG)}$, record 5 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	3E	81	03	01	24	00	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33	9E	02	01	01	9F	04
	01	05	05	05								

TERMINAL RESPONSE: SELECT ITEM 5.1.1A

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Item identifier
    Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	01									

Expected Sequence 5.1B (SELECT ITEM, BASIC ICON NOT SELF EXPLANATORY, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 5.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 5.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	no icon is displayed in the alpha identifier nor in the 3 items.
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 5.1.1 B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: SELECT ITEM 5.1.1B

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed
    Item identifier
        Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	04
	90	01	01									

Expected Sequence 5.2A (SELECT ITEM, BASIC ICON SELF EXPLANATORY, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 5.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 5.2.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	Verify icons are displayed without text as alpha id and for the all 3 items.
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 5.2.1 A	[command performed successfully]

PROACTIVE COMMAND: SELECT ITEM 5.2.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"

Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Select"
Item
    Identifier of item: 01
    Text string of item: "Item 1"
Item
    Identifier of item: 02
    Text string of item: "Item 2"
Item
    Identifier of item: 03
    Text string of item: "Item 3"
Icon Identifier:
    Icon qualifier: "00" (icon is self-explanatory)
    Icon Identifier: record 1 in $EF_{(IMG)}$
Item icon identifier list:
    Icon qualifier: "00" (icon is self-explanatory)
    Icon Identifier: record 5 in $EF_{(IMG)}$, record 5 in $EF_{(IMG)}$, record 5 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	3E	81	03	01	24	00	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33	9E	02	00	01	9F	04
	00	05	05	05								

TERMINAL RESPONSE: SELECT ITEM 5.2.1A

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Item identifier
    Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	00
	90	01	01									

Expected Sequence 5.2B (SELECT ITEM, BASIC ICON SELF EXPLANATORY, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 5.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 5.2.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	no icon is displayed with text as alpha id nor for the all 3 items.
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 5.2.1B	[command performed successfully but requested icon could not be displayed]

TERMINAL RESPONSE: SELECT ITEM 5.2.1B

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully but requested icon could not be displayed
Item identifier
    Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	04
	90	01	01									

27.22.4.9.5.5   Test requirement

The ME shall operate in the manner defined in expected sequences 5.1A to 5.2B.

27.22.4.9.6   SELECT ITEM (presentation style)

27.22.4.9.6.1   Definition and applicability

See clause 3.2.2.

27.22.4.9.6.2   Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.6.3   Test purpose

To verify that the mobile supports the "presentation style" with the command Select Item.

27.22.4.9.6.4   Method of test

27.22.4.9.6.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.6.4.2   Procedure

Expected Sequence 6.1 (SELECT ITEM, PRESENTATION AS A CHOICE OF NAVIGATION OPTIONS, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 6.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 6.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	Verify if presentation style appears.
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 6.1.1	[command performed successfully]

PROACTIVE COMMAND : SELECT ITEM 6.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "03" (presentation as a choice of navigation options)
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "Toolkit Select"
    Item
        Identifier of item: 01
        Text string of item: "Item 1"
    Item
        Identifier of item: 02
        Text string of item: "Item 2"
    Item
        Identifier of item: 03
        Text string of item: "Item 3"

Coding:

BER-TLV:	D0	34	81	03	01	24	03	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33						

TERMINAL RESPONSE: SELECT ITEM 6.1.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "03" (presentation as a choice of navigation options)
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Item identifier
    Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	03	82	02	82	81	83	01	00
	90	01	01									

Expected Sequence 6.2 (SELECT ITEM, PRESENTATION AS A CHOICE OF DATA VALUES, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 6.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 6.2.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "Toolkit Select".	Verify if presentation style appears
5	USER → ME	Navigate in the items, then select "Item 1".	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 6.2.1	[command performed successfully]

PROACTIVE COMMAND: SELECT ITEM 6.2.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "01" (presentation as a choice of data values)
Device identities
    Source device: SIM
    Destination device: ME
    Alpha identifier: "Toolkit Select"
Item
    Identifier of item: 01
    Text string of item: "Item 1"
Item
    Identifier of item: 02
    Text string of item: "Item 2"
Item
    Identifier of item: 03
    Text string of item: "Item 3"

Coding:

BER-TLV:	D0	34	81	03	01	24	01	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32	8F	07	03
	49	74	65	6D	20	33						

TERMINAL RESPONSE: SELECT ITEM 6.2.1

Logically:

Command details
    Command number: 1
    Command type: SELECT ITEM
    Command qualifier: "01"(presentation as a choice of data values)
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Item identifier
    Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	01	82	02	82	81	83	01	00
	90	01	01									

27.22.4.9.6.5 Test requirement

The ME shall operate in the manner defined in expected sequences 6.1 and 6.2.

27.22.4.9.7 SELECT ITEM (soft keys support)

27.22.4.9.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.7.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.7.3 Test purpose

To verify that the mobile supports the "soft keys" with the command Select Item.

27.22.4.9.7.4 Method of test

27.22.4.9.7.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.9.7.4.2   Procedure

Expected Sequence 7.1 (SELECT ITEM, SELECTING USING SOFT KEYS PREFERRED, successful, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 7.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 7.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" under the header of "Toolkit Select".	
5	USER → ME	Navigate in the items, then select "Item 1".	Verify that we can choose an item through soft keys
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 7.1.1	[command performed successfully]

PROACTIVE COMMAND: SELECT ITEM 7.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "04" (selection using soft keys preferred)
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "Toolkit Select"
    Item
        Identifier of item: 01
        Text string of item: "Item 1"
    Item
        Identifier of item: 02
        Text string of item: "Item 2"

Coding:

BER-TLV:	D0	2B	81	03	01	24	04	82	02	81	82	85
	0E	54	6F	6F	6C	6B	69	74	20	53	65	6C
	65	63	74	8F	07	01	49	74	65	6D	20	31
	8F	07	02	49	74	65	6D	20	32			

TERMINAL RESPONSE: SELECT ITEM 7.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "04" (selection using soft keys preferred)
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Item identifier
        Identifier of item chosen: 01

Coding:

BER-TLV:	81	03	01	24	04	82	02	82	81	83	01	00
	90	01	01									

27.22.4.9.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 7.1.

27.22.4.9.8 SELECT ITEM (Support of "No response from user")

27.22.4.9.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.8.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.8.3 Test purpose

To verify that after a period of user inactivity the ME returns a "No response from user" result value in the TERMINAL RESPONSE command sent to the SIM.

27.22.4.9.8.4 Method of test

27.22.4.9.8.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME Manufacturer shall have defined the "no response from user" period of time.

The SIM simulator shall be set to that period of time.

27.22.4.9.8.4.2 Procedure

Expected Sequence 8.1 (SELECT ITEM, no response from user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SELECT ITEM 8.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SELECT ITEM 8.1.1	
4	ME → USER	Display items of "Item 1", "Item 2" and "Item 3" under the header of "<TIME-OUT>".	
5	USER	Waiting and no completion	
6	ME → SIM	TERMINAL RESPONSE: SELECT ITEM 8.1.1	[No response from user] within 5 s after the end of that defined period of time
7	USER	Check if the delay of TERMINAL RESPONSE is reasonable or not	

PROACTIVE COMMAND : SELECT ITEM 8.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
        Alpha identifier: "<TIME-OUT>"
    Item
        Identifier of item: 01
        Text string of item: "Item 1"
    Item
        Identifier of item: 02
        Text string of item: "Item 2"
    Item
        Identifier of item: 03
        Text string of item: "Item 3"

Coding:

BER-TLV:	D0	30	81	03	01	24	00	82	02	81	82	85
	0A	3C	54	49	4D	45	2D	4F	55	54	3E	8F
	07	01	49	74	65	6D	20	31	8F	07	02	49
	74	65	6D	20	32	8F	07	03	49	74	65	6D
	20	33										

TERMINAL RESPONSE: SELECT ITEM 8.1.1

Logically:

    Command details
        Command number: 1
        Command type: SELECT ITEM
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: No response from user

Coding:

BER-TLV:	81	03	01	24	00	82	02	82	81	83	01	12

27.22.4.9.8.5   Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

27.22.4.10   SEND SHORT MESSAGE

27.22.4.10.1   SEND SHORT MESSAGE (normal)

27.22.4.10.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.10.1.2   Conformance requirement

The ME shall support the Proactive SIM: SEND SHORT MESSAGE facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.10, clause 6.6.9, clause 12.6, clause 12.7, clause 12.2, clause 12.1, clause 12.13, clause 12.31 and clause 5.2.

27.22.4.10.1.3   Test purpose

To verify that the ME correctly formats and sends a short message to the network (System Simulator) as indicated in the SEND SHORT MESSAGE proactive SIM command, and returns a TERMINAL RESPONSE command to the SIM indicating the status of the transmission of the Short Message.

27.22.4.10.1.4   Method of test

27.22.4.10.1.4.1   Initial conditions

The ME is connected to the system Simulator and the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.10.1.4.2   Procedure

Expected Sequence 1.1(SEND SHORT MESSAGE, packing not required, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1	[packing not required, 8-bit data]
4	ME → USER	Display "Send SM"	[Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.1	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1

Logically:

    Command details
          Command number: 1
          Command type: SEND SHORT MESSAGE
          Command qualifier: packing not required
    Device identities
          Source device: SIM
          Destination device: Network
          Alpha identifier: "Send SM"
    Address
          TON: International number
          NPI: "ISDN / telephone numbering plan"
          Dialling number string "112233445566778"
    SMS TPDU
          TP-MTI   SMS-SUBMIT
          TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
          TP-VPF   TP-VP field not present
          TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
          TP-UDHI   The TP-UD field contains only the short message

TP-SRR		A status report is not requested									
TP-MR		"00"									
TP-DA											
TON		International number									
NPI		"ISDN / telephone numbering plan"									
Address value		"012345678"									
TP-PID		Short message type 0									
TP-DCS											
Message coding		8-bit data									
Message class		class 0									
TP-UDL		12									
TP-UD		"Test Message"									

Coding:

BER-TLV:	D0	37	81	03	01	13	00	82	02	81	83	85
	07	53	65	6E	64	20	53	4D	86	09	91	11
	22	33	44	55	66	77	F8	8B	18	01	00	09
	91	10	32	54	76	F8	40	F4	0C	54	65	73
	74	20	4D	65	73	73	61	67	65			

SMS-PP (SEND SHORT MESSAGE) Message 1.1

Logically:

SMS TPDU

TP-MTI	SMS-SUBMIT
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF	TP-VP field not present
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI	The TP-UD field contains only the short message
TP-SRR	A status report is not requested
TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	8-bit data
Message class	class 0
TP-UDL	12
TP-UD	"Test Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.1.1

Logically:

Command details

Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required

Device identities

Source device:	ME
Destination device:	SIM

Result

General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (SEND SHORT MESSAGE, packing required, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.2.1	[packing required, 8-bit data]
4	ME → USER	Display "Send SM"	[Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.2	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.2.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.2.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing required
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Send SM"
Address
    TON: International number
    NPI: "ISDN / telephone numbering plan"
    Dialling number string "112233445566778"
SMS TPDU
    TP-MTI SMS-SUBMIT
    TP-RD Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF TP-VP field not present
    TP-RP TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI The TP-UD field contains only the short message
    TP-SRR A status report is not requested
    TP-MR "00"
    TP-DA
        TON International number
        NPI "ISDN / telephone numbering plan"
        Address value "012345678"
    TP-PID Short message type 0
    TP-DCS
        Message coding 8-bit data
        Message class class 0
    TP-UDL 7
    TP-UD "Send SM"

Coding:

BER-TLV:	D0	32	81	03	01	13	01	82	02	81	83	85
	07	53	65	6E	64	20	53	4D	86	09	91	11
	22	33	44	55	66	77	F8	8B	13	01	00	09
	91	10	32	54	76	F8	40	F4	07	53	65	6E
	64	20	53	4D								

SMS-PP (SEND SHORT MESSAGE) Message 1.2

Logically:

SMS TPDU
      TP-MTI   SMS-SUBMIT
      TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
      TP-VPF   TP-VP field not present
      TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
      TP-UDHI   The TP-UD field contains only the short message
      TP-SRR   A status report is not requested
      TP-MR   "00"
      TP-DA
         TON   International number
         NPI   "ISDN / telephone numbering plan"
         Address value   "012345678"
      TP-PID   Short message type 0
      TP-DCS
         Message coding   SMS default alphabet
         Message class   class 0
      TP-UDL   7
      TP-UD   "Send SM"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F0	07
	D3	B2	9B	0C	9A	36	01					

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.2.1

Logically:

Command details
      Command number: 1
      Command type: SEND SHORT MESSAGE
      Command qualifier: packing required
Device identities
      Source device: ME
      Destination device: SIM
Result
      General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	01	82	02	82	81	83	01	00

Expected Sequence 1.3 (SEND SHORT MESSAGE, packing not required, SMS default alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.3.1	[packing not required, SMS default alphabet]
4	ME → USER	Display "Short Message"	[Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.3	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.3.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.3.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Short Message"
Address
    TON: International number
    NPI: "ISDN / telephone numbering plan"
    Dialling number string   "112233445566778"
SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
       TON   International number
       NPI   "ISDN / telephone numbering plan"
       Address value   "012345678"
    TP-PID   Short message type 0
    TP-DCS
       Message coding   SMS default alphabet
       Message class   class 0
    TP-UDL   13
    TP-UD   "Short Message"

Coding:

BER-TLV:	D0	3D	81	03	01	13	00	82	02	81	83	85
	0D	53	68	6F	72	74	20	4D	65	73	73	61
	67	65	86	09	91	11	22	33	44	55	66	77
	F8	8B	18	01	00	09	91	10	32	54	76	F8
	40	F0	0D	53	F4	5B	4E	07	35	CB	F3	79
	F8	5C	06									

SMS-PP (SEND SHORT MESSAGE) Message 1.3

Logically:

SMS TPDU
TP-MTI	SMS-SUBMIT
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF	TP-VP field not present
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI	The TP-UD field contains only the short message
TP-SRR	A status report is not requested
TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	SMS default alphabet
Message class	class 0
TP-UDL	13
TP-UD	"Short Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F0	0D
	53	F4	5B	4E	07	35	CB	F3	79	F8	5C	06

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.3.1

Logically:

Command details
Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required

Device identities
Source device:	ME
Destination device:	SIM

Result
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.4 (SEND SHORT MESSAGE, packing required, 8 bit data, message of 160 characters user data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.4. 1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.4.1	[packing required, 8 bit data]
4	ME → USER	Display "The address data object holds the RP_Destination_Address "	[Alpha Identifier]
5	ME → SS	Send SMS-PP(SEND SHORT MESSAGE) Message 1.4	[message of 140 bytes user data]
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.4.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.4.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing required
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "The address data object holds the RP_Destination_Address"
Address
    TON: International number
    NPI: "ISDN / telephone numbering plan"
    Dialling number string   "112233445566778"
SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "012345678"
    TP-PID   Short message type 0
    TP-DCS
        Message coding   8 bit data
        Message class   class 0
    TP-UDL   160
    TP-UD   "Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transp"

Coding:

BER-TLV:	D0	81	FD	81	03	01	13	01	82	02	81	83
	85	38	54	68	65	20	61	64	64	72	65	73
	73	20	64	61	74	61	20	6F	62	6A	65	63
	74	20	68	6F	6C	64	73	20	74	68	65	20
	52	50	11	44	65	73	74	69	6E	61	74	69
	6F	6E	11	41	64	64	72	65	73	73	86	09
	91	11	22	33	44	55	66	77	F8	8B	81	AC
	01	00	09	91	10	32	54	76	F8	40	F4	A0
	54	77	6F	20	74	79	70	65	73	20	61	72
	65	20	64	65	66	69	6E	65	64	3A	20	2D
	20	41	20	73	68	6F	72	74	20	6D	65	73
	73	61	67	65	20	74	6F	20	62	65	20	73
	65	6E	74	20	74	6F	20	74	68	65	20	6E
	65	74	77	6F	72	6B	20	69	6E	20	61	6E
	20	53	4D	53	2D	53	55	42	4D	49	54	20
	6D	65	73	73	61	67	65	2C	20	6F	72	20
	61	6E	20	53	4D	53	2D	43	4F	4D	4D	41
	4E	44	20	6D	65	73	73	61	67	65	2C	20
	77	68	65	72	65	20	74	68	65	20	75	73
	65	72	20	64	61	74	61	20	63	61	6E	20
	62	65	20	70	61	73	73	65	64	20	74	72
	61	6E	73	70								

SMS-PP (SEND SHORT MESSAGE) Message 1.4

Logically:

SMS TPDU
TP-MTI	SMS-SUBMIT
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF	TP-VP field not present
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI	The TP-UD field contains only the short message
TP-SRR	A status report is not requested
TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	SMS default alphabet
Message class	class 0
TP-UDL	160
TP-UD	"Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transp"

Coding:

BER-TLV:		01	00	09	91	10	32	54	76	F8	40	F0
	A0	D4	FB	1B	44	CF	C3	CB	73	50	58	5E
	06	91	CB	E6	B4	BB	4C	D6	81	5A	A0	20
	68	8E	7E	CB	E9	A0	76	79	3E	0F	9F	CB
	20	FA	1B	24	2E	83	E6	65	37	1D	44	7F
	83	E8	E8	32	C8	5D	A6	DF	DF	F2	35	28
	ED	06	85	DD	A0	69	73	DA	9A	56	85	CD
	24	15	D4	2E	CF	E7	E1	73	99	05	7A	CB
	41	61	37	68	DA	9C	B6	86	CF	66	33	E8
	24	82	DA	E5	F9	3C	7C	2E	B3	40	77	74
	59	5E	06	D1	D1	65	50	7D	5E	96	83	C8
	61	7A	18	34	0E	BB	41	E2	32	08	1E	9E
	CF	CB	64	10	5D	1E	76	CF	E1			

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.4.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing required
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	01	82	02	82	81	83	01	00

Expected Sequence 1.5 (SEND SHORT MESSAGE, packing not required, SMS default alphabet, message of 160 characters user data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.5.1	[packing not required, SMS default alphabet]
4	ME → USER	Display "The address data object holds the RP Destination Address "	[Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.5	[message of 140 bytes user data]
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.5.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.5.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities

Source device:	SIM	
Destination device:	Network	
Alpha identifier:	"The address data object holds the RP Destination Address"	

Address
 TON: International number
 NPI: "ISDN / telephone numbering plan"
 Dialling number string "112233445566778"
SMS TPDU
 TP-MTI   SMS-SUBMIT
 TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
 TP-VPF   TP-VP field not present
 TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
 TP-UDHI   The TP-UD field contains only the short message
 TP-SRR   A status report is not requested
 TP-MR   "00"
 TP-DA
  TON   International number
  NPI   "ISDN / telephone numbering plan"
  Address value   "012345678"
 TP-PID   Short message type 0
 TP-DCS
  Message coding   SMS default alphabet
  Message class   class 0
 TP-UDL   160
 TP-UD   "Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transp"

Coding:

BER-TLV:	D0	81	E9	81	03	01	13	00	82	02	81	83
	85	38	54	68	65	20	61	64	64	72	65	73
	73	20	64	61	74	61	20	6F	62	6A	65	63
	74	20	68	6F	6C	64	73	20	74	68	65	20
	52	50	20	44	65	73	74	69	6E	61	74	69
	6F	6E	20	41	64	64	72	65	73	73	86	09
	91	11	22	33	44	55	66	77	F8	8B	81	98
	01	00	09	91	10	32	54	76	F8	40	F0	A0
	D4	FB	1B	44	CF	C3	CB	73	50	58	5E	06
	91	CB	E6	B4	BB	4C	D6	81	5A	A0	20	68
	8E	7E	CB	E9	A0	76	79	3E	0F	9F	CB	20
	FA	1B	24	2E	83	E6	65	37	1D	44	7F	83
	E8	E8	32	C8	5D	A6	DF	DF	F2	35	28	ED
	06	85	DD	A0	69	73	DA	9A	56	85	CD	24
	15	D4	2E	CF	E7	E1	73	99	05	7A	CB	41
	61	37	68	DA	9C	B6	86	CF	66	33	E8	24
	82	DA	E5	F9	3C	7C	2E	B3	40	77	74	59
	5E	06	D1	D1	65	50	7D	5E	96	83	C8	61
	7A	18	34	0E	BB	41	E2	32	08	1E	9E	CF
	CB	64	10	5D	1E	76	CF	E1				

SMS-PP (SEND SHORT MESSAGE) Message 1.5

Logically:

SMS TPDU
 TP-MTI   SMS-SUBMIT
 TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
 TP-VPF   TP-VP field not present
 TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
 TP-UDHI   The TP-UD field contains only the short message
 TP-SRR   A status report is not requested

TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	SMS default alphabet
Message class	class 0
TP-UDL	160
TP-UD	"Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transp"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F0	A0
	D4	FB	1B	44	CF	C3	CB	73	50	58	5E	06
	91	CB	E6	B4	BB	4C	D6	81	5A	A0	20	68
	8E	7E	CB	E9	A0	76	79	3E	0F	9F	CB	20
	FA	1B	24	2E	83	E6	65	37	1D	44	7F	83
	E8	E8	32	C8	5D	A6	DF	DF	F2	35	28	ED
	06	85	DD	A0	69	73	DA	9A	56	85	CD	24
	15	D4	2E	CF	E7	E1	73	99	05	7A	CB	41
	61	37	68	DA	9C	B6	86	CF	66	33	E8	24
	82	DA	E5	F9	3C	7C	2E	B3	40	77	74	59
	5E	06	D1	D1	65	50	7D	5E	96	83	C8	61
	7A	18	34	0E	BB	41	E2	32	08	1E	9E	CF
	CB	64	10	5D	1E	76	CF	E1				

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.5.1

Logically:

Command details	
Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.6 (SEND SHORT MESSAGE, alpha identifier 160 bytes long, SMS default alphabet, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.6.1	[packing not required, SMS default alphabet]
4	ME → USER	Display "Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transparently; - A short message to be sent to the network in an SMS-SUBMIT "	[Alpha Identifier of 160 bytes]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.6	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.6.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.6.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Two types are defined: - A short message to be sent to the network in an SMS-SUBMIT message, or an SMS-COMMAND message, where the user data can be passed transparently; - A short message to be sent to the network in an SMS-SUBMIT"
SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "01"
    TP-PID   Short message type 0
    TP-DCS
        Message coding   SMS default alphabet
        Message class   class 0
    TP-UDL   1
    TP-UD   " "

Coding:

BER-TLV:	D0	81	FD	81	03	01	13	00	82	02	81	83
	85	81	E6	54	77	6F	20	74	79	70	65	73
	20	61	72	65	20	64	65	66	69	6E	65	64
	3A	20	2D	20	41	20	73	68	6F	72	74	20
	6D	65	73	73	61	67	65	20	74	6F	20	62
	65	20	73	65	6E	74	20	74	6F	20	74	68
	65	20	6E	65	74	77	6F	72	6B	20	69	6E
	20	61	6E	20	53	4D	53	2D	53	55	42	4D
	49	54	20	6D	65	73	73	61	67	65	2C	20
	6F	72	20	61	6E	20	53	4D	53	2D	43	4F
	4D	4D	41	4E	44	20	6D	65	73	73	61	67
	65	2C	20	77	68	65	72	65	20	74	68	65
	20	75	73	65	72	20	64	61	74	61	20	63
	61	6E	20	62	65	20	70	61	73	73	65	64
	20	74	72	61	6E	73	70	61	72	65	6E	74
	6C	79	3B	20	2D	20	41	20	73	68	6F	72
	74	20	6D	65	73	73	61	67	65	20	74	6F
	20	62	65	20	73	65	6E	74	20	74	6F	20
	74	68	65	20	6E	65	74	77	6F	72	6B	20
	69	6E	20	61	6E	20	53	4D	53	2D	53	55
	42	4D	49	54	20	8B	09	01	00	02	91	10
	40	F0	01	20								

SMS-PP (SEND SHORT MESSAGE) Message 1.6

Logically:

SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "01"
    TP-PID   Short message type 0
    TP-DCS
        Message coding   SMS default alphabet
        Message class   class 0
    TP-UDL   1
    TP-UD   " "

Coding:

BER-TLV:	01	00	02	91	10	40	F0	01	20

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.6.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.7(SEND SHORT MESSAGE, alpha identifier length '00', packing not required, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.7.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.7.1	[packing not required, 8-bit data]
4	ME	No information to user	[Alpha identifier length '00']
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.7	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.7.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SHORT MESSAGE
        Command qualifier: packing not required
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier:
    Address
        TON: International number
        NPI: "ISDN / telephone numbering plan"
        Dialling number string   "112233445566778"
    SMS TPDU
        TP-MTI   SMS-SUBMIT
        TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
        TP-VPF   TP-VP field not present
        TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
        TP-UDHI   The TP-UD field contains only the short message
        TP-SRR   A status report is not requested
        TP-MR   "00"
        TP-DA
            TON   International number
            NPI   "ISDN / telephone numbering plan"
            Address value   "012345678"
        TP-PID   Short message type 0
        TP-DCS
            Message coding   8-bit data
            Message class   class 0
        TP-UDL   12
        TP-UD   "Test Message"

Coding:

BER-TLV:	D0	30	81	03	01	13	00	82	02	81	83	85
	00	86	09	91	11	22	33	44	55	66	77	F8
	8B	18	01	00	09	91	10	32	54	76	F8	40
	F4	0C	54	65	73	74	20	4D	65	73	73	61
	67	65										

SMS-PP (SEND SHORT MESSAGE) Message 1.7

Logically:

SMS TPDU
TP-MTI	SMS-SUBMIT
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF	TP-VP field not present
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI	The TP-UD field contains only the short message
TP-SRR	A status report is not requested
TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	8-bit data
Message class	class 0
TP-UDL	12
TP-UD	"Test Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.7.1

Logically:

Command details
Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.8 (SEND SHORT MESSAGE, packing not required, 8-bit data, no alpha identifier, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.8.1	[packing not required, 8-bit data]
4	ME → USER	May give information to user concerning what is happening	[No Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 1.8	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.8.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.8.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities
    Source device: SIM
    Destination device: Network
Address
    TON: International number
    NPI: "ISDN / telephone numbering plan"
    Dialling number string   "112233445566778"
SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "012345678"
    TP-PID   Short message type 0
    TP-DCS
        Message coding   8-bit data
        Message class   class 0
    TP-UDL   12
    TP-UD   "Test Message"

Coding:

BER-TLV:	D0	2E	81	03	01	13	00	82	02	81	83	86
	09	91	11	22	33	44	55	66	77	F8	8B	18
	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

SMS-PP (SEND SHORT MESSAGE) Message 1.8

Logically:

```
SMS TPDU
    TP-MTI              SMS-SUBMIT
    TP-RD               Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF              TP-VP field not present
    TP-RP               TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI             The TP-UD field contains only the short message
    TP-SRR              A status report is not requested
    TP-MR               "00"
    TP-DA
        TON             International number
        NPI             "ISDN / telephone numbering plan"
        Address value   "012345678"
    TP-PID              Short message type 0
    TP-DCS
        Message coding  8-bit data
        Message class   class 0
    TP-UDL              12
    TP-UD               "Test Message"
```

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.8.1

Logically:

```
Command details
    Command number:     1
    Command type:       SEND SHORT MESSAGE
    Command qualifier:  packing not required
Device identities
    Source device:      ME
    Destination device: SIM
Result
    General Result:     Command performed successfully
```

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

27.22.4.10.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.8.

27.22.4.10.2   SEND SHORT MESSAGE (UCS2 support)

27.22.4.10.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.10.2.2 Conformance requirement

The ME shall support the Proactive SIM: SEND SHORT MESSAGE facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.10, clause 6.6.9, clause 12.6, clause 12.7, clause 12.2, clause 12.1, clause 12.13, clause 12.31 and clause 5.2.

Additionally, the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in the following technical specifications: ISO/IEC 10646 [17].

27.22.4.10.2.3 Test purpose

To verify that the ME correctly formats and sends a short message to the network (System Simulator) as indicated in the SEND SHORT MESSAGE proactive SIM command, and returns a TERMINAL RESPONSE command to the SIM indicating the status of the transmission of the Short Message.

27.22.4.10.2.4 Method of test

27.22.4.10.2.4.1 Initial conditions

The ME is connected to the system Simulator and the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.10.2.4.2 Procedure

Expected Sequence 2.1 (SEND SHORT MESSAGE, packing not required, UCS2 (16-bit data))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 2.1.1	[packing not required, 16-bit data]
4	ME → USER	Display "Send SM"	[Alpha Identifier]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 2.1	["ЗДРАВСТВУЙТЕ" = "Hello" in Russian]
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 2.1.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE: 2.1.1

Logically:

```
Command details
      Command number:        1
      Command type:          SEND SHORT MESSAGE
      Command qualifier:     packing not required
Device identities
      Source device:         SIM
      Destination device:    Network
Alpha identifier:            "Send SM"
Address
      TON:                   International number
      NPI:                   "ISDN / telephone numbering plan"
      Dialling number string "112233445566778"
SMS TPDU
      TP-MTI                 SMS-SUBMIT
      TP-RD                  Instruct the SC to accept an SMS-SUBMIT for a SM
      TP-VPF                 TP-VP field not present
```

TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT			
TP-UDHI	The TP-UD field contains only the short message			
TP-SRR	A status report is not requested			
TP-MR	"00"			
TP-DA				
TON	International number			
NPI	"ISDN / telephone numbering plan"			
Address value	"012345678"			
TP-PID	Short message type 0			
TP-DCS				
Message coding	16-bit data			
Message class	class 0			
TP-UDL	24			
TP-UD	"ЗДРАВСТВУЙТЕ"			

Coding:

BER-TLV:	D0	43	81	03	01	13	00	82	02	81	83	85
	07	53	65	6E	64	20	53	4D	86	09	91	11
	22	33	44	55	66	77	F8	8B	24	01	00	09
	91	10	32	54	76	F8	40	08	18	04	17	04
	14	04	20	04	10	04	12	04	21	04	22	04
	12	04	23	04	19	04	22	04	15			

SMS-PP (SEND SHORT MESSAGE) Message 2.1

Logically:

SMS TPDU

TP-MTI	SMS-SUBMIT	
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM	
TP-VPF	TP-VP field not present	
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT	
TP-UDHI	The TP-UD field contains only the short message	
TP-SRR	A status report is not requested	
TP-MR	"00"	
TP-DA		
TON	International number	
NPI	"ISDN / telephone numbering plan"	
Address value	"012345678"	
TP-PID	Short message type 0	
TP-DCS		
Message coding	UCS2 (16-bit data)	
Message class	class 0	
TP-UDL	24	
TP-UD	"ЗДРАВСТВУЙТЕ"	

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	08	18
	04	17	04	14	04	20	04	10	04	12	04	21
	04	22	04	12	04	23	04	19	04	22	04	15

TERMINAL RESPONSE: SEND SHORT MESSAGE 2.2.1

Logically:

Command details

Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required

Device identities
        Source device: ME
        Destination device: SIM
Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

27.22.4.10.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.10.3 SEND SHORT MESSAGE (icon support)

27.22.4.10.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.10.3.2 Conformance requirement

27.22.4.10.3.3 Test purpose

To verify that the ME correctly formats and sends a short message to the network (System Simulator) as indicated in the SEND SHORT MESSAGE proactive SIM command, and returns a TERMINAL RESPONSE command to the SIM indicating the status of the transmission of the Short Message.

27.22.4.10.3.4 Method of test

27.22.4.10.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

The ME screen shall be in its normal stand-by display.

27.22.4.10.3.4.2 Procedure

Expected Sequence 3.1A (SEND SHORT MESSAGE, basic icon self-explanatory, packing not required, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 3.1.1	[packing not required, 8-bit data]
4	ME → USER	Displays the icon and not the alpha identifier	[basic icon self-explanatory]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 3.1	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 3.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SHORT MESSAGE
        Command qualifier: packing not required
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "NO ICON"
    Address
        TON: International number
        NPI: "ISDN / telephone numbering plan"
        Dialling number string "112233445566778"
    SMS TPDU
        TP-MTI   SMS-SUBMIT
        TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
        TP-VPF   TP-VP field not present
        TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
        TP-UDHI   The TP-UD field contains only the short message
        TP-SRR   A status report is not requested
        TP-MR   "00"
        TP-DA
            TON   International number
            NPI   "ISDN / telephone numbering plan"
            Address value   "012345678"
        TP-PID   Short message type 0
        TP-DCS
            Message coding   8bit-data
            Message class   class 0
        TP-UDL   12
        TP-UD   "Test Message"
    Icon Identifier
        Icon Qualifier   self-explanatory
        Icon Identifier   1 (number of record in EF IMG)

Coding:

BER-TLV:	D0	3B	81	03	01	13	00	82	02	81	83	85
	07	4E	4F	20	49	43	4F	4E	86	09	91	11
	22	33	44	55	66	77	F8	8B	18	01	00	09
	91	10	32	54	76	F4	40	F4	0C	54	65	73
	74	20	4D	65	73	73	61	67	65	9E	02	00
	01											

SMS-PP (SEND SHORT MESSAGE) Message 3.1

Logically:

    SMS TPDU
        TP-MTI   SMS-SUBMIT
        TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
        TP-VPF   TP-VP field not present
        TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
        TP-UDHI   The TP-UD field contains only the short message
        TP-SRR   A status report is not requested
        TP-MR   "00"
        TP-DA
            TON   International number
            NPI   "ISDN / telephone numbering plan"

	Address value	"012345678"
	TP-PID	Short message type 0
	TP-DCS	
	Message coding	8-bit data
	Message class	class 0
	TP-UDL	12
	TP-UD	"Test Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 3.1.1A

Logically:

    Command details
        Command number: 1
        Command type: SEND SHORT MESSAGE
        Command qualifier: packing not required
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 3.1B (SEND SHORT MESSAGE, basic icon self-explanatory, packing not required, 8-bit data, requested icon could not be displayed**)**

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 3.1.1	[packing not required, 8-bit data, basic icon self-explanatory]]
4	ME → USER	Displays the alpha identifier without the icon	
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 3.1	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 3.1.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: SEND SHORT MESSAGE 3.1.1B

Logically:

    Command details
        Command number: 1
        Command type: SEND SHORT MESSAGE
        Command qualifier: packing not required
    Device identities
        Source device: ME
        Destination device: SIM
    Result

General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	04

Expected Sequence 3.2A (SEND SHORT MESSAGE, basic icon non-self-explanatory, packing not required, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 3.2.1	[packing not required, 8-bit data]
4	ME → USER	display the icon and "Send SM"	[basic icon non-self-explanatory]
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 3.2	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 3.2.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND SHORT MESSAGE 3.2.1

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities
    Source device: SIM
    Destination device: Network
Alpha Identifier   "Send SM"
    Address
    TON: International number
    NPI: "ISDN / telephone numbering plan"
    Dialling number string   "112233445566778"
SMS TPDU
    TP-MTI   SMS-SUBMIT
    TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF   TP-VP field not present
    TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI   The TP-UD field contains only the short message
    TP-SRR   A status report is not requested
    TP-MR   "00"
    TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "012345678"
    TP-PID   Short message type 0
    TP-DCS
        Message coding   8bit-data
        Message class   class 0
    TP-UDL   12
    TP-UD   "Test Message"
Icon Identifier
    Icon Qualifier   non-self-explanatory
    Icon Identifier   1 (number of record in EF IMG)

Coding:

BER-TLV:	D0	3B	81	03	01	13	00	82	02	81	83	85
	07	53	65	6E	64	20	53	4D	86	09	91	11
	22	33	44	55	66	77	F8	8B	18	01	00	09
	91	10	32	54	76	F8	40	F4	0C	54	65	73
	74	20	4D	65	73	73	61	67	65	1E	02	01
	01											

SMS-PP (SEND SHORT MESSAGE) Message 3.2

Logically:

SMS TPDU
TP-MTI	SMS-SUBMIT
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF	TP-VP field not present
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI	The TP-UD field contains only the short message
TP-SRR	A status report is not requested
TP-MR	"00"
TP-DA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"012345678"
TP-PID	Short message type 0
TP-DCS	
Message coding	8-bit data
Message class	class 0
TP-UDL	12
TP-UD	"Test Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 3.2.1A

Logically:

Command details
Command number:	1
Command type:	SEND SHORT MESSAGE
Command qualifier:	packing not required

Device identities
Source device:	ME
Destination device:	SIM

Result
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 3.2B (SEND SHORT MESSAGE, basic icon non-self-explanatory, packing not required, 8-bit data, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 3.2.1	[packing not required, 8-bit data, basic icon non-self-explanatory]
4	ME → USER	display "Send SM" without the icon	
5	ME → SS	Send SMS-PP (SEND SHORT MESSAGE) Message 3.2	
6	SS → ME	SMS RP-ACK	
7	ME → SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 3.2.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: SEND SHORT MESSAGE 3.2.1B

Logically:

Command details
    Command number: 1
    Command type: SEND SHORT MESSAGE
    Command qualifier: packing not required
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed;

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	04

27.22.4.10.3.5   Test requirement

The ME shall operate in the manner defined in expected sequences 3.1A to 3.2B.

27.22.4.11   SEND SS

27.22.4.11.1   SEND SS (normal)

27.22.4.11.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.11.1.2   Conformance requirement

The ME shall support the Proactive SIM: Send SS facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.11, clause 6.6.10, clause 12.12.1, clause 5.2, clause 12.6, clause 12.7, clause 12.2, clause 12.14, clause 12.31 and clause 6.5.4.

27.22.4.11.1.3   Test purpose

To verify that the ME correctly translates and sends the supplementary service request indicated in the SEND SS proactive SIM command to the system Simulator.

To verify that the ME returns a TERMINAL RESPONSE command to the SIM indicating the status of the transmission of the SS and any contents of the SS result as additional data.

27.22.4.11.1.4   Method of test

27.22.4.11.1.4.1   Initial conditions

The ME is connected to the System Simulator and the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default. Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

27.22.4.11.1.4.2   Procedure

Expected Sequence 1.1 (SEND SS, call forward unconditional, all bearers, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.1.1	
4	ME → USER	Display "Call Forward"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.1.1	

PROACTIVE COMMAND: SEND SS 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Call Forward"
    SS String
        TON: International
        NPI: "ISDN / telephone numbering plan"
        SS string: "**21*+01234567890123456789#"

Coding:

BER-TLV:	D0	27	81	03	01	11	00	82	02	81	83	85
	0C	43	61	6C	6C	20	46	6F	72	77	61	72
	64	89	0E	91	AA	12	0A	21	43	65	87	09
	21	43	65	87	B9							

REGISTER 1.1

Logically (only SS argument):

    REGISTER SS ARGUMENT
        SS-Code:
            - Call Forwarding Unconditional

TeleserviceCode
   - All Tele Services
ForwardedToNumber
   - nature of address ind.: international
   - numbering plan ind.: ISDN/Telephony (E.164)
   - TBCD String: 01234567890123456789

Coding:

BER-TLV	30	13	04	01	21	83	01	00	84	0B	91	10
	32	54	76	98	10	32	54	76	98			

RELEASE COMPLETE (SS RETURN RESULT) 1.1

Logically (only from operation code):

REGISTER SS RETURN RESULT
    ForwardingInfo
    SS-Code
      - Call Forwarding Unconditional
    ForwardFeatureList
      ForwardingFeature
      TeleserviceCode
        - All Tele Services
    SS-Status
      - state ind.: operative
      - provision ind.: provisioned
      - registration ind.: registered
      - activation ind.: active
    ForwardedToNumber
      - nature of address ind.: international
      - numbering plan ind.: ISDN/Telephony (E.164)
      - TBCD String: 01234567890123456789

Coding:

BER-TLV	0A	A0	1A	04	01	21	30	15	30	13	83	01
	00	84	01	07	84	0B	91	10	32	54	76	98
	10	32	54	76	98							

TERMINAL RESPONSE: SEND SS 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SEND SS
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Additional information: Operation Code and SS Parameters

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	1E
	00	0A	A0	1A	04	01	21	30	15	30	13
	83	01	00	84	01	07	85	0B	91	10	32
	54	76	98	10	32	54	76	98			

Expected Sequence 1.2 (SEND SS, call forward unconditional, all bearers, Return Error)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.1.1	
4	ME → USER	Display "Call Forward"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN ERROR) 1.1	[Return Error]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.2.1	

RELEASE COMPLETE (SS RETURN ERROR) 1.1

Logically (only from error code):

    Error Code: Facility not supported

Coding:

BER-TLV	02	11	15

TERMINAL RESPONSE: SEND SS 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: SS Return Error
        Additional information: Error Code

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	02
	34	15									

Expected Sequence 1.3 (SEND SS, call forward unconditional, all bearers, Reject)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.1.1	
4	ME → USER	Display "Call Forward"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS REJECT) 1.1.	[Reject]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.3.1	

RELEASE COMPLETE (SS REJECT) 1.1

Logically (only from problem code):

    Problem Code:
        - General problem
        - Unrecognized component

Coding:

BER-TLV	80	01	00

TERMINAL RESPONSE: SEND SS 1.3.1

Logically:

```
Command details
      Command number:      1
      Command type:        SEND SS
      Command qualifier:   "00"
Device identities
      Source device:       ME
      Destination device:  SIM
Result
      General Result:      SS Return Error
      Additional information: No specific cause can be given
```

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	02
	34	00									

Expected Sequence 1.4 (SEND SS, call forward unconditional, all bearers, successful, SS request size limit)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.4.1	
4	ME → USER	Display "Call Forward"	
5	ME → SS	REGISTER 1.2	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.2	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.4.1	

PROACTIVE COMMAND: SEND SS 1.4.1

Logically:

```
Command details
      Command number:      1
      Command type:        SEND SS
      Command qualifier:   "00"
Device identities
      Source device:       SIM
      Destination device:  Network
      Alpha identifier:    "Call Forward"
SS String
      TON:                 International
      NPI:                 "ISDN / telephone numbering plan"
      SS string:           "**21*+012345678901234567890123456789012345 67*11#"
```

Coding:

BER-TLV:	D0	32	81	03	01	11	00	82	02	81	83	85
	0C	43	61	6C	6C	20	46	6F	72	77	61	72
	64	89	19	91	AA	12	0A	21	43	65	87	09
	21	43	65	87	09	21	43	65	87	09	21	43
	65	A7	11	FB								

REGISTER 1.2

Logically (only SS argument):

REGISTER SS ARGUMENT
     RegisterSSArg
     SS-Code
        Call Forwarding Unconditional
     TeleserviceCode
        Telephony
     ForwardedToNumber
        nature of address ind.:   international
        numbering plan ind.:   ISDN/Telephony (E.164)
        TBCD String: 01234567890123456789012345678901234567

Coding:

BER-TLV	30	1C	04	01	21	83	01	11	84	14	91	10
	32	54	76	98	10	32	54	76	98	10	32	54
	76	98	10	32	54	76						

RELEASE COMPLETE (SS RETURN RESULT) 1.2

Logically (only from operation code):

REGISTER SS RETURN RESULT
     ForwardingInfo
     SS-Code
        - Call Forwarding Unconditional
     ForwardFeatureList
        ForwardingFeature
        TeleserviceCode
        - Telephony
     SS-Status
        - state ind.: operative
        - provision ind.: provisioned
        - registration ind.: registered
        - activation ind.: active
     ForwardedToNumber
        - nature of address ind.: international
        - numbering plan ind.: ISDN/Telephony (E.164)
        - TBCD String: 01234567890123456789012345678901234567

Coding:

BER-TLV	0A	A0	23	04	01	21	30	1E	30	1C	83	01
	11	84	01	07	84	14	91	10	32	54	76	98
	10	32	54	76	98	10	32	54	76	98	10	32
	54	76										

TERMINAL RESPONSE: SEND SS 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
        Additional information: Operation Code and SS Parameters

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	27
	00	0A	A0	23	04	01	21	30	1E	30	1C
	83	01	11	84	01	07	84	14	91	10	32
	54	76	98	10	32	54	76	98	10	32	54
	76	98	10	32	54	76					

Expected Sequence 1.5 (SEND SS, interrogate CLIR status, successful, alpha identifier limits)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.5.1	
4	ME → USER	Display "Even if the Fixed Dialling Number service is enabled, the supplementary service control string included in the SEND SS proactive command shall not be checked against those of the FDN list. Upon receiving this command, the ME shall deci"	
5	ME → SS	REGISTER 1.3	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.3	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.5.1	

PROACTIVE COMMAND: SEND SS 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Even if the Fixed Dialling Number service is enabled, the supplementary service
                               control string included in the SEND SS proactive command shall not be checked
                               against those of the FDN list. Upon receiving this command, the ME shall deci"
    SS String
        TON: Undefined
        NPI: Undefined
        SS string: "*#31#"

Coding:

BER-TLV:	D0	81	FD	81	03	01	11	00	82	02	81	83
	85	81	EB	45	76	65	6E	20	69	66	20	74
	68	65	20	46	69	78	65	64	20	44	69	61
	6C	6C	69	6E	67	20	4E	75	6D	62	65	72
	20	73	65	72	76	69	63	65	20	69	73	20
	65	6E	61	62	6C	65	64	2C	20	74	68	65
	20	73	75	70	70	6C	65	6D	65	6E	74	61
	72	79	20	73	65	72	76	69	63	65	20	63
	6F	6E	74	72	6F	6C	20	73	74	72	69	6E
	67	20	69	6E	63	6C	75	64	65	64	20	69
	6E	20	74	68	65	20	53	45	4E	44	20	53
	53	20	70	72	6F	61	63	74	69	76	65	20
	63	6F	6D	6D	61	6E	64	20	73	68	61	6C
	6C	20	6E	6F	74	20	62	65	20	63	68	65
	63	6B	65	64	20	61	67	61	69	6E	73	74
	20	74	68	6F	73	65	20	6F	66	20	74	68
	65	20	46	44	4E	20	6C	69	73	74	2E	20
	55	70	6F	6E	20	72	65	63	65	69	76	69
	6E	67	20	74	68	69	73	20	63	6F	6D	6D
	61	6E	64	2C	20	74	68	65	20	4D	45	20
	73	68	61	6C	6C	20	64	65	63	69	89	04
	FF	BA	13	FB								

REGISTER 1.3

Logically (only SS argument):

    INTERROGATE SS ARGUMENT
        SS-Code
           - Calling Line Id Restriction

Coding:

BER-TLV	30	03	04	01	12

RELEASE COMPLETE (SS RETURN RESULT) 1.3

Logically (only from operation code):

    INTERROGATE SS RESULT
        CliRestrictionInfo
        SS-Status
           - state ind.: operative
           - provision ind.: provisioned
           - registration ind.: registered
           - activation ind.: not active
        CliRestrictionOption
           - Temporary Def Allowed

Coding:

BER-TLV	0E	A4	06	04	01	06	0A	01	02

TERMINAL RESPONSE: SEND SS 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Additional information
        Operation Code: SS Code
        Parameters: SS Return Result

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	0A
	00	0E	A4	06	04	01	06	0A	01	02	

Expected Sequence 1.6 (SEND SS, call forward unconditional, all bearers, successful, null data alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 1.6.1	
4	ME	Should not give any information to the user on the fact that the ME is sending an SS request	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.1.1	

PROACTIVE COMMAND: SEND SS 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: null data object
    SS String
        TON: International
        NPI: "ISDN / telephone numbering plan"
        SS string: "**21*+0123456789012345789#"

Coding:

BER-TLV:	D0	1B	81	03	01	11	00	82	02	81	83	85
	00	89	0E	91	AA	12	0A	21	43	65	87	09
	21	43	65	87	B9							

27.22.4.11.1.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.1 to 1.6.

27.22.4.11.2   SEND SS (Icon support)

27.22.4.11.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.11.2.2   Conformance requirement

27.22.4.11.2.3   Test purpose

To verify that the ME displays the text contained in the SEND SS proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

In addition to verify that if an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier.

27.22.4.11.2.4   Method of test

27.22.4.11.2.4.1   Initial conditions

The ME is connected to the System Simulator and the SIM Simulator.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

The elementary files are coded as Toolkit default.

27.22.4.11.2.4.2   Procedure

Expected Sequence 2.1A (SEND SS, call forward unconditional, all bearers, successful, basic icon self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display the icon without the alpha identifier	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND SS 2.1.1

Logically:

     Command details
          Command number: 1
          Command type: SEND SS
          Command qualifier: "00"
     Device identities
          Source device: SIM
          Destination device: Network
          Alpha identifier: "Basic Icon"

SS String
    TON: International
    NPI: "ISDN / telephone numbering plan"
    SS string: "**21*+01234567890123456789#"
Icon Identifier:
    Icon qualifier: icon is self-explanatory
    Icon Identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	29	81	03	01	11	00	82	02	81	83	85
	0A	42	61	73	69	63	20	49	63	6F	6E	89
	0E	91	AA	12	0A	21	43	65	87	09	21	43
	65	87	B9	9E	02	00	01					

TERMINAL RESPONSE: SEND SS 2.1.1A

Logically:

Command details
    Command number: 1
    Command type: SEND SS
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Additional information: Operation Code and SS Parameters

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	1E
	00	0A	A0	1A	04	01	21	30	15	30	13
	83	01	00	84	01	07	85	0B	91	10	32
	54	76	98	10	32	54	76	98			

Expected Sequence 2.1B (SEND SS, call forward unconditional, all bearers, successful, basic icon self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display "Basic Icon" without the icon	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1B	[Command performed successfully, but requested icon could not be displayed]

TERMINAL RESPONSE: SEND SS 2.1.1B

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed
        Additional information: Operation Code and SS Parameters

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	03	1E
	04	0A	A0	1A	04	01	21	30	15	30	13
	83	01	00	84	01	07	85	0B	91	10	32
	54	76	98	10	32	54	76	98			

Expected Sequence 2.2A (SEND SS, call forward unconditional, all bearers, successful, colour icon self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.2.1	[COLOUR-ICON, self-explanatory]
4	ME → USER	Display the icon	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND SS 2.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Colour Icon"
    SS String
        TON: International
        NPI: "ISDN / telephone numbering plan"
        SS string: "**21*+01234567890123456789#"
    Icon Identifier:
        Icon qualifier: icon is self-explanatory
        Icon Identifier: record 2 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	2A	81	03	01	11	00	82	02	81	83	85
	0B	43	6F	6C	6F	75	72	20	49	63	6F	6E
	89	0E	91	AA	12	0A	21	43	65	87	09	21
	43	65	87	B9	9E	02	00	02				

Expected Sequence 2.2B (SEND SS, call forward unconditional, all bearers, successful, colour icon self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.2.1	[COLOUR-ICON, self-explanatory]
4	ME → USER	Display "Colour Icon" without the icon	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1B	[Command performed but requested icon could not be displayed]

Expected Sequence 2.3A (SEND SS, call forward unconditional, all bearers, successful, basic icon non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.3.1	[BASIC-ICON, non self-explanatory]
4	ME → USER	Display "Basic Icon" and the icon	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND SS 2.3.1

Logically:

```
Command details
    Command number:      1
    Command type:        SEND SS
    Command qualifier:   "00"
Device identities
    Source device:       SIM
    Destination device:  Network
Alpha Identifier
    Text:                "Basic Icon"
SS String
    TON:                 International
    NPI:                 "ISDN / telephone numbering plan"
    SS string:           "**21*+01234567890123456789#"
Icon Identifier
    Icon qualifier:      icon is non self-explanatory
    Icon Identifier:     record 1 in EF(IMG)
```

Coding:

BER-TLV:	D0	29	81	03	01	11	00	82	02	81	83	85
	0A	42	61	73	69	63	20	49	63	6F	6E	89
	0E	91	AA	12	0A	21	43	65	87	09	21	43
	65	87	B9	9E	02	01	01					

Expected Sequence 2.3B (SEND SS, call forward unconditional, all bearers, successful, basic icon non self-explanatory)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.3.1	[BASIC-ICON, non self-explanatory]
4	ME → USER	Display "Basic Icon" without the icon	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 2.1.1B	[Command performed but requested icon could not be displayed]

Expected Sequence 2.4 (SEND SS, call forward unconditional, all bearers, successful, basic icon non self-explanatory, no alpha identifier presented)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 2.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 2.4.1	[BASIC-ICON, non self-explanatory]
4	ME → SIM	TERMINAL RESPONSE: SEND SS 2.4.1	[Command data not understood by ME]

PROACTIVE COMMAND: SEND SS 2.4.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
    SS String
        TON: International
        NPI: "ISDN / telephone numbering plan"
        SS string: "**21*+01234567890123456789#"
    Icon Identifier
        Icon qualifier: icon is non self-explanatory
        Icon Identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	1D	81	03	01	11	00	82	02	81	83	89
	0E	91	AA	12	0A	21	43	65	87	09	21	43
	65	87	B9	9E	02	01	01					

TERMINAL RESPONSE: SEND SS 2.4.1

Logically:

Command details
    Command number: 1
    Command type: SEND SS
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command data not understood by ME

Coding:

BER-TLV:	81	03	01	11	00	82	02	82	81	83	01	32

27.22.4.11.2.5   Test requirement

The ME shall operate in the manner defined in expected sequences 2.1A to 2.4.

27.22.4.11.3   SEND SS (UCS2 support)

27.22.4.11.3.1   Definition and applicability

See clause 3.2.2.

27.22.4.11.3.2   Conformance requirement

The ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in: ISO/IEC 10646 [17].

27.22.4.11.3.3   Test purpose

To verify that the ME displays the UCS2 text contained in the SEND SS proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.11.3.4   Method of test

27.22.4.11.3.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default. Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

27.22.4.11.3.4.2 Procedure

Expected Sequence 3.1 (SEND SS, call forward unconditional, all bearers, successful, UCS2 text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND SS 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND SS 3.1.1	
4	ME → USER	Display "ЗДРАВСТВУЙТЕ"	["Hello" in Russian]
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: SEND SS 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SS
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha Identifier
        Data coding scheme: UCS2 (16bit)
        Text: "ЗДРАВСТВУЙТЕ"
    SS String
        TON: International
        NPI: "ISDN / telephone numbering plan"
        SS string: "**21*+01234567890123456789#"

Coding:

BER-TLV:	D0	34	81	03	01	11	00	82	02	81	83	85
	19	80	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15	89	0E	91	AA	12	0A	21	43	65	87
	09	21	43	65	87	B9						

27.22.4.11.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.12   SEND USSD

27.22.4.12.1   SEND USSD (normal)

27.22.4.12.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.12.1.2   Conformance requirement

The ME shall support the Proactive SIM: Send USSD facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.12, clause 6.6.11, clause 12.12.7, clause 5.2, clause 12.6, clause 12.7, clause 12.2, clause 12.17, clause 12.31 and clause 6.5.4.

- 3GPP TS 03.38 [7] clause 5.

Additionally the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in: ISO/IEC 10646 [17].

27.22.4.12.1.3   Test purpose

To verify that the ME correctly translates and sends the unstructured supplementary service request indicated in the SEND USSD proactive SIM command to the system Simulator.

To verify that the ME returns a TERMINAL RESPONSE command to the SIM indicating the status of the transmission of the USSD request and including a USSD result as a text string in the TERMINAL RESPONSE.

27.22.4.12.1.4   Method of test

27.22.4.12.1.4.1   Initial conditions

The ME is connected to the System Simulator and the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default. Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

27.22.4.12.1.4.2   Procedure

Expected Sequence 1.1 (SEND USSD, 7-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.1.1	
4	ME → USER	Display "7-bit USSD"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.1.1	

PROACTIVE COMMAND: SEND USSD 1.1.1

Logically:

    Command details
            Command number: 1
            Command type: SEND USSD
            Command qualifier: "00"
    Device identities
            Source device: SIM
            Destination device: Network
            Alpha identifier: "7-bit USSD"
    USSD String
            Data coding scheme: 7-bit default, no message class
            USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-
                                     1234567890"

Coding:

BER-TLV:	D0	50	81	03	01	12	00	82	02	81	83	85
	0A	37	2D	62	69	74	20	55	53	53	44	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60		

REGISTER 1.1

Logically (only USSD argument)

    ProcessUnstructuredSS-Request ARGUMENT
        USSD-DataCodingScheme:
            - 7-bit default, no message class
        USSD string:
            - "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"

Coding:

BER-TLV	30	3D	04	01	F0	04	38	41	E1	90	58	34
	1E	91	49	E5	92	D9	74	3E	A1	51	E9	94
	5A	B5	5E	B1	59	6D	2B	2C	1E	93	CB	E6
	33	3A	AD	5E	B3	DB	EE	37	3C	2E	9F	D3
	EB	F6	3B	3E	AF	6F	C5	64	33	5A	CD	76
	C3	E5	60									

RELEASE COMPLETE (SS RETURN RESULT) 1.1

Logically (only from USSD result):

    ProcessUnstructuredSS-Request RETURN RESULT
        USSD-DataCodingScheme:
            - 7-bit default, no message class
        USSD string:
            - "USSD string received from SS"

Coding:

BER-TLV	30	1E	04	01	F0	04	19	D5	E9	94	08	9A
	D3	E5	69	F7	19	24	2F	8F	CB	69	7B	99
	0C	32	CB	DF	6D	D0	74	0A				

TERMINAL RESPONSE: SEND USSD 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text String
        Data coding scheme: 7-bit default, no message class
        String: "USSD string received from SS"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	00	8D	1A	00	D5	E9	94	08	9A	D3	E5
	69	F7	19	24	2F	8F	CB	69	7B	99	0C
	32	CB	DF	6D	D0	74	0A				

Expected Sequence 1.2 (SEND USSD, 8-bit data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.2.1	
4	ME → USER	Display "8-bit USSD"	
5	ME → SS	REGISTER 1.2	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.2	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.2.1	

PROACTIVE COMMAND: SEND USSD 1.2.1

Logically:

```
Command details
    Command number:        1
    Command type:          SEND USSD
    Command qualifier:     "00"
Device identities
    Source device:         SIM
    Destination device:    Network
    Alpha identifier:      "8-bit USSD"
USSD String
    Data coding scheme:    Uncompressed, no message class meaning, 8-bit data
    USSD string:           "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-
                           1234567890"
```

Coding:

BER-TLV:	D0	58	81	03	01	12	00	82	02	81	83	85
	0A	38	2D	62	69	74	20	55	53	53	44	8A
	41	44	41	42	43	44	45	46	47	48	49	4A
	4B	4C	4D	4E	4F	50	51	52	53	54	55	56
	57	58	59	5A	2D	61	62	63	64	65	66	67
	68	69	6A	6B	6C	6D	6E	6F	70	71	72	73
	74	75	76	77	78	79	7A	2D	31	32	33	34
	35	36	37	38	39	30						

REGISTER 1.2

Logically (only USSD argument):

```
ProcessUnstructuredSS-Request ARGUMENT
    USSD-DataCodingScheme:
        - Uncompressed, no message class meaning, 8-bit data
    USSD string:
        - "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"
```

Coding:

BER-TLV	30	45	04	01	44	04	40	41	42	43	44	45
	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51
	52	53	54	55	56	57	58	59	5A	2D	61	62
	63	64	65	66	67	68	69	6A	6B	6C	6D	6E
	6F	70	71	72	73	74	75	76	77	78	79	7A
	2D	31	32	33	34	35	36	37	38	39	30	

RELEASE COMPLETE (SS RETURN RESULT) 1.2

Logically (only from USSD result):

    ProcessUnstructuredSS-Request RETURN RESULT
        USSD-DataCodingScheme:
          - Uncompressed, no message class meaning, 8-bit data
        USSD string:
          - "USSD string received from SS"

Coding:

BER-TLV	30	21	04	01	04	04	1C	55	53	53	44	20
	73	74	72	69	6E	67	20	72	65	63	65	69
	76	65	64	20	66	72	6F	6D	20	53	53	

TERMINAL RESPONSE: SEND USSD 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Text String
        Data coding scheme: Uncompressed, no message class meaning, 8-bit data
        String: "USSD string received from SS"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	00	8D	1D	04	55	53	53	44	20	73	74
	72	69	6E	67	20	72	65	63	65	69	76
	65	64	20	66	72	6F	6D	20	53	53	

Expected Sequence 1.3 (SEND USSD, UCS2 data, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.3.1	
4	ME → USER	Display "UCS2 USSD"	
5	ME → SS	REGISTER 1.3	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.3	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND SS 1.3.1	

PROACTIVE COMMAND: SEND USSD 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "UCS2 USSD"
    USSD String
        Data coding scheme: Uncompressed, no message class meaning, UCS2 (16 bit)
        USSD string: "ЗДРАВСТВУЙТЕ" ("Hello" in Russian)

Coding:

BER-TLV:	D0	2F	81	03	01	12	00	82	02	81	83	85
	09	55	43	53	32	20	55	53	53	44	8A	19
	48	04	17	04	14	04	20	04	10	04	12	04
	21	04	22	04	12	04	23	04	19	04	22	04
	15											

REGISTER 1.3

Logically (only USSD argument):

    ProcessUnstructuredSS-Request ARGUMENT
        USSD-DataCodingScheme:
          - Uncompressed, no message class meaning, UCS2 (16 bit)
        USSD string:
          - "ЗДРАВСТВУЙТЕ" ("Hello" in Russian)

Coding:

BER-TLV	30	1D	04	01	48	04	18	04	17	04	14	04
	20	04	10	04	12	04	21	04	22	04	12	04
	23	04	19	04	22	04	15					

RELEASE COMPLETE (SS RETURN RESULT) 1.3

Logically (only from USSD result):

    ProcessUnstructuredSS-Request RETURN RESULT
        USSD-DataCodingScheme:
          - Uncompressed, no message class meaning, UCS2 (16 bit)

USSD string:
- "USSD string received from SS"

Coding:

BER-TLV	30	3D	04	01	08	04	38	00	55	00	53	00
	53	00	44	00	20	00	73	00	74	00	72	00
	69	00	6E	00	67	00	20	00	72	00	65	00
	63	00	65	00	69	00	76	00	65	00	64	00
	20	00	66	00	72	00	6F	00	6D	00	20	00
	53	00	53									

TERMINAL RESPONSE: SEND USSD 1.3.1

Logically:

Command details
    Command number: 1
    Command type: SEND USSD
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text String
    Data coding scheme: Uncompressed, no message class meaning, UCS2 (16 bit)
    String: "USSD string received from SS"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	00	8D	39	08	00	55	00	53	00	53	00
	44	00	20	00	73	00	74	00	72	00	69
	00	6E	00	67	00	20	00	72	00	65	00
	63	00	65	00	69	00	76	00	65	00	64
	00	20	00	66	00	72	00	6F	00	6D	00
	20	00	53	00	53						

Expected Sequence 1.4 (SEND USSD, 7-bit data, unsuccessful (Return Error))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.1.1	
4	ME → USER	Display "7-bit USSD"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN ERROR) 1.1	Return Error
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.4.1	

RELEASE COMPLETE (SS RETURN ERROR) 1.1

Logically (only from Return Error code):

ProcessUnstructuredSS-Request RETURN ERROR
    Return Error code:
        - Unknown alphabet

Coding:

BER-TLV	02	01	47

TERMINAL RESPONSE: SEND USSD 1.4.1

Logically:

```
Command details
      Command number:        1
      Command type:          SEND USSD
      Command qualifier:     "00"
Device identities
      Source device:         ME
      Destination device:    SIM
Result
      General Result:        USSD Return Error
      Additional information: "Unknown alphabet"
```

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	02
	37	47									

Expected Sequence 1.5 (SEND USSD, 7-bit data, unsuccessful (Reject))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.1.1	
4	ME → USER	Display "7-bit USSD"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS REJECT) 1.1	Reject
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.5.1	

RELEASE COMPLETE (SS REJECT) 1.1

Logically (only from Problem code):

```
ProcessUnstructuredSS-Request REJECT
      Invoke Problem code:
          - Mistyped parameter
```

Coding:

BER-TLV	81	01	02

TERMINAL RESPONSE: SEND USSD 1.5.1

Logically:

```
Command details
      Command number:        1
      Command type:          SEND USSD
      Command qualifier:     "00"
Device identities
      Source device:         ME
      Destination device:    SIM
```

Result

    General Result: USSD Return Error

    Additional information: "No specific cause can be given"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	02
	37	00									

Expected Sequence 1.6 (SEND USSD, 256 octets, 7-bit data, successful, long alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.6.1	
4	ME → USER	Display "once a RELEASE COMPLETE message containing the USSD Return Result message not containing an error has been received from the network, the ME shall inform the SIM that the command has"	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.1.1	

PROACTIVE COMMAND: SEND USSD 1.6.1

Logically:

Command details

    Command number: 1

    Command type: SEND USSD

    Command qualifier: "00"

Device identities

    Source device: SIM

    Destination device: Network

    Alpha identifier: "once a RELEASE COMPLETE message containing the USSD Return Result message not containing an error has been received from the network, the ME shall inform the SIM that the command has"

USSD String

    Data coding scheme: 7-bit default, no message class

    USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"

Coding:

BER-TLV:	D0	81	FD	81	03	01	12	00	82	02	81	83
	85	81	B6	6F	6E	63	65	20	61	20	52	45
	4C	45	41	53	45	20	43	4F	4D	50	4C	45
	54	45	20	6D	65	73	73	61	67	65	20	63
	6F	6E	74	61	69	6E	69	6E	67	20	74	68
	65	20	55	53	53	44	20	52	65	74	75	72
	6E	20	52	65	73	75	6C	74	20	6D	65	73
	73	61	67	65	20	6E	6F	74	20	63	6F	6E
	74	61	69	6E	69	6E	67	20	61	6E	20	65
	72	72	6F	72	20	68	61	73	20	62	65	65
	6E	20	72	65	63	65	69	76	65	64	20	66
	72	6F	6D	20	74	68	65	20	6E	65	74	77
	6F	72	6B	2C	20	74	68	65	20	4D	45	20
	73	68	61	6C	6C	20	69	6E	66	6F	72	6D
	20	74	68	65	20	53	49	4D	20	74	68	61
	74	20	74	68	65	20	63	6F	6D	6D	61	6E
	64	20	68	61	73	8A	39	F0	41	E1	90	58
	34	1E	91	49	E5	92	D9	74	3E	A1	51	E9
	94	5A	B5	5E	B1	59	6D	2B	2C	1E	93	CB
	E6	33	3A	AD	5E	B3	DB	EE	37	3C	2E	9F
	D3	EB	F6	3B	3E	AF	6F	C5	64	33	5A	CD
	76	C3	E5	60								

Expected Sequence 1.7 (SEND USSD, 7-bit data, successful, no alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.7.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.7.1	
4	ME → USER	Optionally display an informative message	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.1.1	

PROACTIVE COMMAND: SEND USSD 1.7.1

Logically:

```
Command details
        Command number:       1
        Command type:         SEND USSD
        Command qualifier:    "00"
Device identities
        Source device:        SIM
        Destination device:   Network
USSD String
        Data coding scheme:   7-bit default, no message class
        USSD string:          "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-
                              1234567890"
```

Coding:

BER-TLV:	D0	44	81	03	01	12	00	82	02	81	83	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60		

Expected Sequence 1.8 (SEND USSD, 7-bit data, successful, null length alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 1.8.1	
4	ME → USER	the ME should not give any information to the user on the fact that the ME is sending a USSD request	
5	ME → SS	REGISTER 1.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 1.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 1.1.1	

PROACTIVE COMMAND: SEND USSD 1.8.1

Logically:

Command details
    Command number: 1
    Command type: SEND USSD
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: ""
USSD String
    Data coding scheme: 7-bit default, no message class
    USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"

Coding:

BER-TLV:	D0	46	81	03	01	12	00	82	02	81	83	85
	00	8A	39	F0	41	E1	90	58	34	1E	91	49
	E5	92	D9	74	3E	A1	51	E9	94	5A	B5	5E
	B1	59	6D	2B	2C	1E	93	CB	E6	33	3A	AD
	5E	B3	DB	EE	37	3C	2E	9F	D3	EB	F6	3B
	3E	AF	6F	C5	64	33	5A	CD	76	C3	E5	60

27.22.4.12.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 - 1.8.

27.22.4.12.2   SEND USSD (Icon support)

27.22.4.12.2.1   Definition and applicability

See clause 3.2.2.

ETSI

27.22.4.12.2.2   Conformance requirement

27.22.4.12.2.3   Test purpose

To verify that the ME displays the text contained in the SEND USSD proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

In addition to verify that if an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier.

27.22.4.12.2.4   Method of test

27.22.4.12.2.4.1   Initial conditions

The ME is connected to the System Simulator and the SIM Simulator.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator

The elementary files are coded as Toolkit default.

27.22.4.12.2.4.2   Procedure

Expected Sequence 2.1A (SEND USSD, 7-bit data, successful, basic icon self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display BASIC ICON	
5	ME → SS	REGISTER 2.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND USSD 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Basic Icon"
    USSD String
        Data coding scheme: 7-bit default, no message class
        USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-
                               1234567890"
    Icon Identifier:
        Icon qualifier: icon is self-explanatory
        Icon Identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	54	81	03	01	12	00	82	02	81	83	85
	0A	42	61	73	69	63	20	49	63	6F	6E	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60	9E	02
	00	01										

REGISTER 2.1

Logically (only USSD argument)

> ProcessUnstructuredSS-Request ARGUMENT
>> USSD-DataCodingScheme:
>>> - 7-bit default, no message class
>> USSD string:
>>> - "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"

Coding:

BER-TLV	30	3D	04	01	F0	04	38	41	E1	90	58	34
	1E	91	49	E5	92	D9	74	3E	A1	51	E9	94
	5A	B5	5E	B1	59	6D	2B	2C	1E	93	CB	E6
	33	3A	AD	5E	B3	DB	EE	37	3C	2E	9F	D3
	EB	F6	3B	3E	AF	6F	C5	64	33	5A	CD	76
	C3	E5	60									

RELEASE COMPLETE (SS RETURN RESULT) 2.1

Logically (only from USSD result):

> ProcessUnstructuredSS-Request RETURN RESULT
>> USSD-DataCodingScheme:
>>> - 7-bit default, no message class
>> USSD string:
>>> - "USSD string received from SS"

Coding:

BER-TLV	30	1E	04	01	F0	04	19	D5	E9	94	08	9A
	D3	E5	69	F7	19	24	2F	8F	CB	69	7B	99
	0C	32	CB	DF	6D	D0	74	0A				

TERMINAL RESPONSE: SEND USSD 2.1.1A

Logically:

> Command details
>> Command number: 1
>> Command type: SEND USSD
>> Command qualifier: "00"
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully

Text String
    Data coding scheme: 7-bit default, no message class
    String: "USSD string received from SS"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	00	8D	1A	00	D5	E9	94	08	9A	D3	E5
	69	F7	19	24	2F	8F	CB	69	7B	99	0C
	32	CB	DF	6D	D0	74	0A				

Expected Sequence 2.1B (SEND USSD, 7-bit data, successful, basic icon self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.1.1	[BASIC-ICON, self-explanatory]
4	ME → USER	Display "Basic Icon" without the icon	
5	ME → SS	REGISTER 2.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.1.1B	[Command performed but requested icon could not be displayed]

TERMINAL RESPONSE: SEND USSD 2.1.1B

Logically:

Command details
    Command number: 1
    Command type: SEND USSD
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed
Text String
    Data coding scheme: 7-bit default, no message class
    String: "USSD string received from SS"
Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	04	8D	1A	00	D5	E9	94	08	9A	D3	E5
	69	F7	19	24	2F	8F	CB	69	7B	99	0C
	32	CB	DF	6D	D0	74	0A				

Expected Sequence 2.2 (SEND USSD, 7-bit data, successful, colour icon self explanatory)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.2.1	[COLOUR-ICON, self-explanatory]
4	ME → USER	Display COLOUR-ICON or May give information to user concerning what is happening	
5	ME → SS	REGISTER 2.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.1.1A or TERMINAL RESPONSE: SEND USSD 2.1.1B	[Command performed successfully] or [Command performed but requested icon could not be displayed]

PROACTIVE COMMAND: SEND USSD 2.2.1

Logically:

Command details
     Command number: 1
     Command type: SEND USSD
     Command qualifier: "00"
Device identities
     Source device: SIM
     Destination device: Network
     Alpha identifier: "Color Icon"
USSD String
     Data coding scheme: 7-bit default, no message class
     USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"
Icon Identifier:
     Icon qualifier: icon is self-explanatory
     Icon Identifier: record 2 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	54	81	03	01	12	00	82	02	81	83	85
	0A	43	6F	6C	6F	72	20	49	63	6F	6E	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60	9E	02
	00	02										

Expected Sequence 2.3A (SEND USSD, 7-bit data, successful, basic icon non self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.3.1	[BASIC-ICON, non self-explanatory]
4	ME → USER	Display "Basic Icon" and BASIC-ICON	
5	ME → SS	REGISTER 2.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.1.1A	[Command performed successfully]

PROACTIVE COMMAND: SEND USSD 2.3.1

Logically:

Command details
    Command number: 1
    Command type: SEND USSD
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Basic Icon"
USSD String
    Data coding scheme: 7-bit default, no message class
    USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"
Icon Identifier
    Icon qualifier: icon is non self-explanatory
    Icon Identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	54	81	03	01	12	00	82	02	81	83	85
	0A	42	61	73	69	63	20	49	63	6F	6E	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60	9E	02
	01	01										

Expected Sequence 2.3B (SEND USSD, 7-bit data, successful, basic icon non self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.3.1	[BASIC-ICON, non self-explanatory]
4	ME → USER	Display "Basic Icon" without the icon	
5	ME → SS	REGISTER 2.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	["USSD string received from SS"]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.1.1B	[Command performed but requested icon could not be displayed]

Expected Sequence 2.4 (SEND USSD, 7-bit data, basic icon non self-explanatory, no alpha identifier presented)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 2.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 2.4.1	[BASIC-ICON, non self-explanatory]
4	ME → SIM	TERMINAL RESPONSE: SEND USSD 2.4.1	[Command data not understood by ME]

PROACTIVE COMMAND: SEND USSD 2.4.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
    USSD String
        Data coding scheme: 7-bit default, no message class
        USSD string: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-
    Icon Identifier
        Icon qualifier: icon is non self-explanatory
        Icon Identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	48	81	03	01	12	00	82	02	81	83	8A
	39	F0	41	E1	90	58	34	1E	91	49	E5	92
	D9	74	3E	A1	51	E9	94	5A	B5	5E	B1	59
	6D	2B	2C	1E	93	CB	E6	33	3A	AD	5E	B3
	DB	EE	37	3C	2E	9F	D3	EB	F6	3B	3E	AF
	6F	C5	64	33	5A	CD	76	C3	E5	60	9E	02
	01	01										

TERMINAL RESPONSE: SEND USSD 2.4.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command data not understood by ME

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01	32

27.22.4.12.2.5   Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 - 2.4.

27.22.4.12.3   SEND USSD (UCS2 support)

27.22.4.12.3.1   Definition and applicability

See clause 3.2.2.

27.22.4.12.3.2   Conformance requirement

The ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in:

- ISO/IEC 10646 [17].

27.22.4.12.3.3   Test purpose

To verify that the ME displays the UCS2 text contained in the SEND USSD proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.12.3.4   Method of test

27.22.4.12.3.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default. Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

27.22.4.12.3.4.2   Procedure

Expected Sequence 3.1 (SEND USSD, 7-bit data, successful, UCS2 text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND USSD 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND USSD 3.1.1	
4	ME → USER	Display "ЗДРАВСТВУЙТЕ"	["Hello" in Russian]
5	ME → SS	REGISTER 3.1	
6	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 3.1	[Successful]
7	ME → SIM	TERMINAL RESPONSE: SEND USSD 3.1.1	[Command performed successfully]

PROACTIVE COMMAND: SEND USSD 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND USSD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
    Alpha Identifier
        Data coding scheme: UCS2 (16bit)
        Text: "ЗДРАВСТВУЙТЕ"
    USSD String
        Data coding scheme: 7-bit default, no message class
        USSD String: "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-

Coding:

BER-TLV:	D0	5F	81	03	01	12	00	82	02	81	83	85
	19	80	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15	8A	39	F0	41	E1	90	58	34	1E	91
	49	E5	92	D9	74	3E	A1	51	E9	94	5A	B5
	5E	B1	59	6D	2B	2C	1E	93	CB	E6	33	3A
	AD	5E	B3	DB	EE	37	3C	2E	9F	D3	EB	F6
	3B	3E	AF	6F	C5	64	33	5A	CD	76	C3	E5
	60											

REGISTER 3.1

Logically (only USSD argument)

    ProcessUnstructuredSS-Request ARGUMENT
        USSD-DataCodingScheme:
          - 7-bit default, no message class
        USSD String:
          - "ABCDEFGHIJKLMNOPQRSTUVWXYZ-abcdefghijklmnopqrstuvwxyz-1234567890"

Coding:

BER-TLV	30	3D	04	01	F0	04	38	41	E1	90	58	34
	1E	91	49	E5	92	D9	74	3E	A1	51	E9	94
	5A	B5	5E	B1	59	6D	2B	2C	1E	93	CB	E6
	33	3A	AD	5E	B3	DB	EE	37	3C	2E	9F	D3
	EB	F6	3B	3E	AF	6F	C5	64	33	5A	CD	76
	C3	E5	60									

RELEASE COMPLETE (SS RETURN RESULT) 3.1

Logically (only from USSD result):

ProcessUnstructuredSS-Request RETURN RESULT
      USSD-DataCodingScheme:
        - 7-bit default, no message class
      USSD String:
        - "USSD string received from SS"

Coding:

BER-TLV	30	1E	04	01	F0	04	19	D5	E9	94	08	9A
	D3	E5	69	F7	19	24	2F	8F	CB	69	7B	99
	0C	32	CB	DF	6D	D0	74	0A				

TERMINAL RESPONSE: SEND USSD 3.1.1

Logically:

Command details
    Command number: 1
    Command type: SEND USSD
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Text String
    Data coding scheme: 7-bit default, no message class
    String: "USSD string received from SS"

Coding:

BER-TLV:	81	03	01	12	00	82	02	82	81	83	01
	00	8D	1A	00	D5	E9	94	08	9A	D3	E5
	69	F7	19	24	2F	8F	CB	69	7B	99	0C
	32	CB	DF	6D	D0	74	0A				

27.22.4.12.3.5   Test requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.13 SET UP CALL

27.22.4.13.1 SET UP CALL (normal)

27.22.4.13.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.13.1.2 Conformance requirement

The ME shall support the Proactive SIM: Set Up Call facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.13, clause 6.6.12, clause 12.6, clause 12.7, clause 12.12, clause 12.12.3 and clause 5.2.

27.22.4.13.1.3 Test purpose

To verify that the ME accepts the Proactive Command - Set Up Call, displays the alpha identifier to the user, attempts to set up a call to the address and returns the result in the TERMINAL RESPONSE.

27.22.4.13.1.4 Method of test

27.22.4.13.1.4.1 Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the system simulator.

27.22.4.13.1.4.2 Procedure

Expected Sequence 1.1 (SET UP CALL, call confirmed by the user and connected)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.1.1	
4	ME → USER	ME displays "Not busy" during user confirmation phase.	
5	USER → ME	The user confirms the call set up	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 1.1.1 The ME shall not update EF LND with the called party address.	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns to idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL

      Command qualifier: only if not currently busy on another call
  Device identities
      Source device: SIM
      Destination device: Network
      Alpha identifier: "Not busy"
  Address
      TON: International
      NPI: ISDN / telephone numbering plan
      Dialling number string "012340123456p1p2"

Coding:

BER-TLV:	D0	1E	81	03	01	10	00	82	02	81	83	85
	08	4E	6F	74	20	62	75	73	79	86	09	91
	10	32	04	21	43	65	1C	2C				

TERMINAL RESPONSE: SET UP CALL 1.1.1

Logically:

  Command details
      Command number: 1
      Command type: SET UP CALL
      Command qualifier: only if not currently busy on another call
  Device identities
      Source device: ME
      Destination device: SIM
  Result
      General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (SET UP CALL, call rejected by the user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.1.1	
4	ME → USER	ME displays "Not busy" during the user confirmation phase	
5	USER → ME	The user rejects the set up call	[user rejects the call]
6	ME → SIM	TERMINAL RESPONSE 1.2.1	[User did not accept call set-up request]
7	ME → USER	The ME returns in idle mode.	

TERMINAL RESPONSE: SET UP CALL 1.2.1

Logically:

  Command details
      Command number: 1
      Command type: SET UP CALL
      Command qualifier: only if not currently busy on another call
  Device identities
      Source device: ME
      Destination device: SIM
  Result

General Result: User did not accept the proactive command

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	22

Expected Sequence 1.3 (SET UP CALL, redial)

The system simulator shall be configured such that call set up requests will be rejected with cause "User Busy".

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.3.1	[only if not currently busy on another call with redial]
4	ME → USER	ME displays "Not busy with redial" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirms the call]
6	ME → SS	ME attempts to set up a call to "+012340123456p1p2" at least twice	[redial mechanism]
7	ME → SIM	TERMINAL RESPONSE 1.3.1	[network currently unable to process command]
8	ME → USER	The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call with redial
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Not busy with redial"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string "012340123456p1p2"

Coding:

BER-TLV:	D0	2A	81	03	01	10	01	82	02	81	83	85
	14	4E	6F	74	20	62	75	73	79	20	77	69
	74	68	20	72	65	64	69	61	6C	86	09	91
	10	32	04	21	43	65	1C	2C				

TERMINAL RESPONSE: SET UP CALL 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call with redial
    Device identities
        Source device: ME
        Destination device: SIM

Result
General Result: network currently unable to process command
Additional Information: User Busy

Coding:

BER-TLV:	81	03	01	10	01	82	02	82	81	83	02	21
	91											

Expected Sequence 1.4 (SET UP CALL, putting all other calls on hold, ME busy)

ME is busy on a call

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.4.1	[putting all other calls on hold]
4	ME → USER	ME displays "On hold" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirms the call]
6	ME → SS	The active call is put on hold	
7	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
8	SS → ME	The ME receives the CONNECT message from the system simulator.	
9	ME → SIM	TERMINAL RESPONSE 1.4.1	[Command performed successfully]
10	USER → ME	The user ends the call after 5 s. The ME retrieves the previous call	

PROACTIVE COMMAND: SET UP CALL 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: putting all other calls on hold
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "On hold"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string "012340123456p1p2"

Coding:

BER-TLV:	D0	1D	81	03	01	10	02	82	02	81	83	85
	07	4F	6E	20	68	6F	6C	64	86	09	91	10
	32	04	21	43	65	1C	2C					

TERMINAL RESPONSE: SET UP CALL 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL

      Command qualifier: putting all other calls on hold
Device identities
      Source device: ME
      Destination device: SIM
Result
      General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	02	82	02	82	81	83	01	00

Expected Sequence 1.5 (SET UP CALL, disconnecting all other calls, ME busy)

ME is busy on a call

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.5.1	[disconnecting all other calls]
4	ME → USER	ME displays "Disconnect" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirms the call]
6	ME → SS	The ME disconnects the active call	
7	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
8	SS → ME	The ME receives the CONNECT message from the system simulator.	
9	ME → SIM	TERMINAL RESPONSE 1.5.1	[Command performed successfully]
10	USER → ME	The user ends the call after 5 s.	

PROACTIVE COMMAND: SET UP CALL 1.5.1

Logically:

   Command details
      Command number: 1
      Command type: SET UP CALL
      Command qualifier: disconnecting all other calls
   Device identities
      Source device: SIM
      Destination device: Network
      Alpha identifier: "Disconnect"
   Address
      TON: International
      NPI: ISDN / telephone numbering plan
      Dialling number string "012340123456p1p2"

Coding:

BER-TLV:	D0	20	81	03	01	10	04	82	02	81	83	85
	0A	44	69	73	63	6F	6E	6E	65	63	74	86
	09	91	10	32	04	21	43	65	1C	2C		

TERMINAL RESPONSE: SET UP CALL 1.5.1

Logically:

   Command details
      Command number: 1

```
            Command type:          SET UP CALL
            Command qualifier:     putting all other calls on hold
      Device identities
            Source device:         ME
            Destination device:    SIM
      Result
            General Result:        Command performed successfully
```

Coding:

BER-TLV:	81	03	01	10	04	82	02	82	81	83	01	00

Expected Sequence 1.6 (SET UP CALL, only if not currently busy on another call, ME busy)

ME is busy on a call

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.1.1	[only if not currently busy on another call]
4	ME → SIM	TERMINAL RESPONSE 1.6.1	[ME currently unable to process command]

TERMINAL RESPONSE: SET UP CALL 1.6.1

Logically:

```
      Command details
            Command number:        1
            Command type:          SET UP CALL
            Command qualifier:     only if not currently busy on another call
      Device identities
            Source device:         ME
            Destination device:    SIM
      Result
            General Result:        ME currently unable to process command
            Additional Information: ME currently busy on call
```

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	02	20
02											

Expected Sequence 1.7 (SET UP CALL, putting all other calls on hold, call hold is not allowed)

ME is busy on a call. The system simulator shall be configured to not allow Call Hold.

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.4.1	[putting all other calls on hold]
4	ME → USER	ME displays "On hold" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirms the call]
6	ME → SIM	TERMINAL RESPONSE 1.7.1	[Network currently unable to process command]

TERMINAL RESPONSE: SET UP CALL 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: putting all other calls on hold
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Network currently unable to process command
        Additional Information: No specific cause can be given

Coding:

BER-TLV:	81	03	01	10	02	82	02	82	81	83	02	21
	00											

Expected Sequence 1.8 (SET UP CALL, Capability configuration)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.8.1	[Capability configuration parameters: full rate support]
4	ME → USER	ME displays "Capability config" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2" using the capability configuration parameters supplied by SIM	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 1.8.1	[Command performed successfully]
9	USER → ME	The user ends the call The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.8.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: if not busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Capability config"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string "012340123456p1p2"
    Capability configuration parameters
        Information transfer cap: full rate support only MS

Coding:

BER-TLV:	D0	2B	81	03	01	10	00	82	02	81	83	85
	11	43	61	70	61	62	69	6C	69	74	79	20
	63	6F	6E	66	69	67	86	09	91	10	32	04
	21	43	65	1C	2C	87	02	01	20			

TERMINAL RESPONSE: SET UP CALL 1.8.1

Logically:

Command details
  Command number: 1
  Command type: SET UP CALL
  Command qualifier: if not busy on another call
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 1.9 (SET UP CALL, max dialling number string, no alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.9.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE SET UP CALL 1.9.1	[dialling number string, no alpha identifier]
4	USER → ME	The user confirms the set up call	[user confirmation]
5	ME→SS	The ME attempts to set up a call to "012345678901234567890123456789*#*#*#*#*#01234567890123456 67890123456789*#*#*#*#*#"	
6	SS → ME	The ME receives the CONNECT message from the system simulator.	
7	ME → SIM	TERMINAL RESPONSE 1.9.1	[Command performed successfully]
8	USER → ME	The user ends the call The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.9.1

Logically:

Command details
  Command number: 1
  Command type: SET UP CALL
  Command qualifier: only if not currently busy on another call with redial
Device identities
  Source device: SIM
  Destination device: Network
Address
  TON: International
  NPI: ISDN / telephone numbering plan
Dialling number string: "012345678901234567890123456789*#*#*#*#*#01234567890123456
                         789*#*#*#*#*#"

Coding:

BER-TLV:	D0	34	81	03	01	10	01	82	02	81	83	86
	29	91	10	32	54	76	98	10	32	54	76	98
	10	32	54	76	98	BA	BA	BA	BA	BA	10	32
	54	76	98	10	32	54	76	98	10	32	54	76
	98	BA	BA	BA	BA	BA						

TERMINAL RESPONSE: SET UP CALL 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call with redial
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	01	82	02	82	81	83	01	00

Expected Sequence 1.10 (SET UP CALL,256 octets length, long first alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.10.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.10.1	[alpha identifier]
4	ME → USER	ME displays "Three types are defined: - set up a call, but only if not currently busy on another call; - set up a call, putting all other calls (if any) on hold; - set up a call, disconnecting all other calls (if any) first. For each of these types, " during the user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+01"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 1.10.1	[Command performed successfully]
9	USER → ME	The user ends the call The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.10.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call with redial
    Device identities
        Source device: SIM

Destination device:	Network
Alpha identifier:	"Three types are defined: - set up a call, but only if not currently busy on another call; - set up a call, putting all other calls (if any) on hold; - set up a call, disconnecting all other calls (if any) first. For each of these types, "
Address	
TON:	International
NPI:	ISDN / telephone numbering plan
Dialling number string:	"01"

Coding:

BER-TLV:	D0	81	FD	81	03	01	10	01	82	02	81	83
	85	81	ED	54	68	72	65	65	20	74	79	70
	65	73	20	61	72	65	20	64	65	66	69	6E
	65	64	3A	20	2D	20	73	65	74	20	75	70
	20	61	20	63	61	6C	6C	2C	20	62	75	74
	20	6F	6E	6C	79	20	69	66	20	6E	6F	74
	20	63	75	72	72	65	6E	74	6C	79	20	62
	75	73	79	20	6F	6E	20	61	6E	6F	74	68
	65	72	20	63	61	6C	6C	3B	20	2D	20	73
	65	74	20	75	70	20	61	20	63	61	6C	6C
	2C	20	70	75	74	74	69	6E	67	20	61	6C
	6C	20	6F	74	68	65	72	20	63	61	6C	6C
	73	20	28	69	66	20	61	6E	79	29	20	6F
	6E	20	68	6F	6C	64	3B	20	2D	20	73	65
	74	20	75	70	20	61	20	63	61	6C	6C	2C
	20	64	69	73	63	6F	6E	6E	65	63	74	69
	6E	67	20	61	6C	6C	20	6F	74	68	65	72
	20	63	61	6C	6C	73	20	28	69	66	20	61
	6E	79	29	20	66	69	72	73	74	2E	20	46
	6F	72	20	65	61	63	68	20	6F	66	20	74
	68	65	73	65	20	74	79	70	65	73	2C	20
	86	02	91	10								

TERMINAL RESPONSE: SET UP CALL 1.10.1

Logically:

Command details		
	Command number:	1
	Command type:	SET UP CALL
	Command qualifier:	only if not currently busy on another call with redial
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	10	01	82	02	82	81	83	01	00

Expected Sequence 1.11A (SET UP CALL, Called party subaddress, command performed successfully)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.11.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.11.1	[set up a call with called party subaddress]
4	ME → USER	ME displays "Called party" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2" with the called party subaddress information	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 1.11.1A	[Command performed successfully]
9	USER → ME	The user ends the call The ME returns in idle mode.	

Expected Sequence 1.11B (SET UP CALL, Called party subaddress, ME not supporting the called party subaddress)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.11.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.11.1	[set up a call with called party subaddress]
4	ME → SIM	TERMINAL RESPONSE 1.11.1B	[beyond ME's capabilities]

PROACTIVE COMMAND: SET UP CALL 1.11.1

Logically:

Command details
    Command number: 1
    Command type: SET UP CALL
    Command qualifier: if not busy on another call
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Called party"
Address
    TON: International
    NPI: ISDN / telephone numbering plan
    Dialling number string: "012340123456p1p2"
Called party subaddress
    Type of subaddress: NSAP (X.213 / ISO 8348 AD2)
    Odd / even indicator: even number of address signals
    Subaddress information: AFI, 95, 95, 95, 95, 95

Coding:

BER-TLV:	D0	2B	81	03	01	10	00	82	02	81	83	85
	0C	43	61	6C	6C	65	64	20	70	61	72	74
	79	86	09	91	10	32	04	21	43	65	1C	2C
	88	07	80	50	95	95	95	95	95			

TERMINAL RESPONSE: SET UP CALL 1.11.1A

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP CALL
        Command qualifier:     if not busy on another call
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        Command performed successfully
```

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: SET UP CALL 1.11.1B

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP CALL
        Command qualifier:     if not busy on another call
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        Beyond ME's capabilities
```

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	30

Expected Sequence 1.12 (SET UP CALL, maximum duration for the redial mechanism)

The system simulator shall be configured such that call set up requests will be rejected with cause "User Busy".

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.12.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.12.1	[only if not currently busy on another call with redial]
4	ME → USER	ME displays "Duration" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirms the call]
6	ME → SS	ME attempts to set up a call to "+012340123456p1p2" . It stops its attempts after 10 seconds.	[redial mechanism with maximum duration of 10 seconds]]
7	ME → SIM	TERMINAL RESPONSE 1.12.1	[network currently unable to process command]
8	ME → USER	The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 1.12.1

Logically:

```
Command details
        Command number:        1
```

	Command type:	SET UP CALL
	Command qualifier:	only if not currently busy on another call with redial
Device identities		
	Source device:	SIM
	Destination device:	Network
	Alpha identifier:	"Duration"
Address		
	TON:	International
	NPI:	ISDN / telephone numbering plan
	Dialling number string:	"012340123456p1p2"
Duration		
	Unit:	Seconds
	Interval:	10

Coding:

BER-TLV:	D0	22	81	03	01	10	01	82	02	81	83	85
	08	44	75	72	61	74	69	6F	6E	86	09	91
	10	32	04	21	43	65	1C	2C	84	02	01	0A

TERMINAL RESPONSE: SET UP CALL 1.12.1

Logically:

Command details		
	Command number:	1
	Command type:	SET UP CALL
	Command qualifier:	only if not currently busy on another call with redial
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	network currently unable to process command
	Additional Information:	User Busy

Coding:

| BER-TLV: | 81 | 03 | 01 | 10 | 01 | 82 | 02 | 82 | 81 | 83 | 02 | 21 |
| | 91 | | | | | | | | | | | |

27.22.4.13.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.12.

27.22.4.13.2   SET UP CALL (second alpha identifier)

27.22.4.13.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.13.2.2   Conformance requirement

Same as clause 27.22.4.13.2.1.

27.22.4.13.2.3   Test purpose

To verify that the ME accepts a Proactive Command - Set Up Call, displays the alpha identifiers to the user, attempts to set up a call to the address and returns the result in the TERMINAL RESPONSE.

27.22.4.13.2.4   Method of test

27.22.4.13.2.4.1   Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and is in updated idle mode on the system simulator.

27.22.4.13.2.4.2   Procedure

Expected Sequence 2.1 (SET UP CALL, two alpha identifiers)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 2.1.1	
4	ME → USER	ME displays "CONFIRMATION" during the user confirmation phase	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2". The ME displays "CALL" if the ME supports 2nd alpha identifier or otherwise "CONFIRMATION"	[second alpha identifier]
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 2.1.1 The ME shall not update EF LND with the called party address.	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "CONFIRMATION"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string   "012340123456p1p2"
        Alpha Identifier (call set up phase):   "CALL"

Coding:

BER-TLV:	D0	28	81	03	01	10	00	82	02	81	83	85
	0C	43	4F	4E	46	49	52	4D	41	54	49	4F
	4E	86	09	91	10	32	04	21	43	65	1C	2C
	85	04	43	41	4C	4C						

TERMINAL RESPONSE: SET UP CALL 2.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP CALL
    Command qualifier: only if not currently busy on another call
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

27.22.4.13.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.13.3 SET UP CALL (display of icons)

27.22.4.13.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.13.3.2 Conformance requirement

27.22.4.13.3.3 Test purpose

To verify that the ME accepts a Proactive Set Up Call , displays the message or icon to the user ,attempts to set up a call to the address, returns the result in the TERMINAL response.

27.22.4.13.3.4 Method of test

27.22.4.13.3.4.1 Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and is in updated idle mode on the system simulator.

27.22.4.13.3.4.2 Procedure

Expected Sequence 3.1A (SET UP CALL, display of basic icon during confirmation phase, not self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.1.1	Including icon identifier, icon shall be displayed in addition of the first alpha identifier
4	ME → USER	ME displays "Set up call Icon 3.1.1" and the basic icon during a user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.1.1A	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Set up call Icon 3.1.1"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string   "012340123456p1p2"
    Icon identifier
        Icon qualifier: icon is not self-explanatory
        Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	30	81	03	01	10	00	82	02	81	83	85
	16	53	65	74	20	75	70	20	63	61	6C	6C
	20	49	63	6F	6E	20	33	2E	31	2E	31	86
	09	91	10	32	04	21	43	65	1C	2C	9E	02
	01	01										

TERMINAL RESPONSE: SET UP CALL 3.1.1A

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL

Command qualifier:	only if not currently busy on another call
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 3.1B (SET UP CALL, display of basic icon during confirmation phase, not self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.1.1	Including icon identifier, icon shall be displayed in addition of the first alpha identifier
4	ME → USER	ME displays "Set up call Icon 3.1.1" without the basic icon during a user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.1.1B	[Command performed successfully, but requested icon could not be displayed].
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

TERMINAL RESPONSE: SET UP CALL 3.1.1B

Logically:

Command details	
Command number:	1
Command type:	SET UP CALL
Command qualifier:	only if not currently busy on another call
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	04

Expected Sequence 3.2A (SET UP CALL, display of basic icon during confirmation phase, self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.2.1	Including icon identifier, icon shall be displayed instead of the first alpha identifier
4	ME → USER	ME displays the basic icon during a user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.2.1A	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 3.2.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Set up call Icon 3.2.1"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string "012340123456p1p2"
    Icon identifier
        Icon qualifier: icon is self-explanatory
        Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	30	81	03	01	10	00	82	02	81	83	85
	16	53	65	74	20	75	70	20	63	61	6C	6C
	20	49	63	6F	6E	20	33	2E	32	2E	31	86
	09	91	10	32	04	21	43	65	1C	2C	9E	02
	00	01										

TERMINAL RESPONSE: SET UP CALL 3.2.1A

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

ETSI

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 3.2B (SET UP CALL, display of basic icon during confirmation phase, self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.2.1	Including icon identifier, icon shall be displayed instead of the first alpha identifier
4	ME → USER	ME display "Set up call Icon 3.2.1" without the icon	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.2.1B	[Command performed successfully, but requested icon could not be displayed].
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

TERMINAL RESPONSE: SET UP CALL 3.2.1B

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	04

Expected Sequence 3.3A (SET UP CALL, display of colour icon during confirmation phase, not self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.3.1	Including icon identifier, icon shall be displayed in addition of the first alpha identifier
4	ME → USER	ME displays "Set up call Icon 3.3.1" and the colour icon during a user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.3.1A	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 3.3.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Set up call Icon 3.3.1"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string   "012340123456p1p2"
    Icon identifier
        Icon qualifier: icon is not self-explanatory
        Icon identifier: <record 2 in EF IMG>

Coding:

BER-TLV:	D0	30	81	03	01	10	00	82	02	81	83	85
	16	53	65	74	20	75	70	20	63	61	6C	6C
	20	49	63	6F	6E	20	33	2E	33	2E	31	86
	09	91	10	32	04	21	43	65	1C	2C	9E	02
	01	02										

TERMINAL RESPONSE: SET UP CALL 3.3.1A

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM

Result

    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 3.3B (SET UP CALL, display of colour icon during confirmation phase, not self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.3.1	Including icon identifier, icon shall be displayed in addition of the first alpha identifier
4	ME → USER	ME only display alpha string: " Set up call Icon 3.3.1"	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.3.1B	[Command performed successfully, but requested icon could not be displayed].
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

TERMINAL RESPONSE: SET UP CALL 3.3.1B

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	04

Expected Sequence 3.4A (SET UP CALL, display of self explanatory basic icon during set up call, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.4.1	Including a second alpha identifier and two icons
4	ME → USER	ME displays the basic icon during a user confirmation phase.	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2". The ME displays the basic icon without the text during the set up call.	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.4.1A	[Command performed successfully]
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

PROACTIVE COMMAND: SET UP CALL 3.4.1

Logically:

    Command details
            Command number: 1
            Command type: SET UP CALL
            Command qualifier: only if not currently busy on another call
    Device identities
            Source device: SIM
            Destination device: Network
    Alpha identifier: "Set up call Icon 3.4.1"
    Address
            TON: International
            NPI: ISDN / telephone numbering plan
            Dialling number string   "012340123456p1p2"
    Icon identifier
            Icon qualifier: icon is self-explanatory
            Icon identifier: <record 1 in EF IMG>
    Alpha identifier: "Set up call Icon 3.4.2"
    Icon identifier
            Icon qualifier: icon is self-explanatory
            Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	4C	81	03	01	10	00	82	02	81	83	85
	16	53	65	74	20	75	70	20	63	61	6C	6C
	20	49	63	6F	6E	20	33	2E	34	2E	31	86
	09	91	10	32	04	21	43	65	1C	2C	9E	02
	00	01	85	16	53	65	74	20	75	70	20	63
	61	6C	6C	20	49	63	6F	6E	20	33	2E	34
	2E	32	9E	02	00	01						

TERMINAL RESPONSE: SET UP CALL 3.4.1A

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 3.4B (SET UP CALL, display of self explanatory basic icon during set up call, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 3.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 3.4.1	Including a second alpha identifier and two icons
4	ME → USER	ME displays "Set up call Icon 3.4.1" without the icon	
5	USER → ME	The user confirms the set up call	[user confirmation]
6	ME → SS	The ME attempts to set up a call to "+012340123456p1p2". The ME displays "Set up call Icon 3.4.2" without the icon during the set up call.	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE 3.4.1B	[Command performed successfully, but requested icon could not be displayed].
9	USER → ME	The user ends the call after 5 s. The ME returns in idle mode.	

TERMINAL RESPONSE: SET UP CALL 3.4.1B

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	04

27.22.4.13.3.5   Test requirement

The ME shall operate in the manner defined in expected sequences 3.1A to 3.4B.

27.22.4.14   POLLING OFF

27.22.4.14.1   Definition and applicability

See clause 3.2.2.

27.22.4.14.2   Conformance requirement

The ME shall support the POLLING OFF as defined in:

* 3GPP TS 11.14 [15] clause 5.2, clause 6.4.14, clause 6.6.14, clause 6.8, clause 6.11, clause 12.6 and clause 12.7.

27.22.4.14.3   Test purpose

To verify that the ME cancels the effect of any previous POLL INTERVAL commands and does not effect SIM presence detection.

27.22.4.14.4   Method of test

27.22.4.14.4.1   Initial conditions

The ME is connected to the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.14.4.2   Procedure

Expected Sequence 1.1 (POLLING OFF)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POLLING INTERVAL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POLL INTERVAL 1.1.1	Interval = 1 min
4	ME → SIM	TERMINAL RESPONSE: POLL INTERVAL 1.1.1 A or TERMINAL RESPONSE: POLL INTERVAL 1.1.1B	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: POLLING OFF 1.1.2	
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: POLLING OFF 1.1.2	
8	ME → SIM	TERMINAL RESPONSE: POLLING OFF 1.1.2	[command performed successfully]
9	USER → SIM	Call to be set up	
10	ME → SIM	Periods of inactivity on the SIM-ME interfaceshall not exceed 30 seconds	
11	USER → SIM	Call to be terminated 3 minutes after call setup	

PROACTIVE COMMAND: POLL INTERVAL 1.1.1

Logically:

Command details
    Command number: 1
    Command type: POLL INTERVAL
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
Duration
    Time unit: Minutes
    Time interval: 1

Coding:

BER-TLV:	D0	0D	81	03	01	03	00	82	02	81	82	84
	02	00	01									

TERMINAL RESPONSE: POLL INTERVAL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: POLL INTERVAL
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Duration
    Time unit: Minutes
    Time interval: 1

Coding:

BER-TLV:	81	03	01	03	00	82	02	82	81	83	01	00
	84	02	00	01								

TERMINAL RESPONSE: POLL INTERVAL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: POLL INTERVAL
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Duration
    Time unit: Seconds
    Time interval: 60

Coding:

BER-TLV:	81	03	01	03	00	82	02	82	81	83	01	00

84	02	01	3C									

PROACTIVE COMMAND: POLLING OFF 1.1.2

Logically:

Command details
    Command number: 1
    Command type: POLLING OFF
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	04	00	82	02	81	82

TERMINAL RESPONSE: POLLING OFF 1.1.2

Logically:

Command details
    Command number: 1
    Command type: POLLING OFF
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	04	00	82	02	82	81	83	01	00

27.22.4.14.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.4.15   PROVIDE LOCAL INFORMATION

27.22.4.15.1   Definition and applicability

See clause 3.2.2.

27.22.4.15.2   Conformance requirement

The ME shall support the PROVIDE LOCAL INFORMATION facility as defined in:

- 3GPP TS 11.14 [15] clause 6.4.15.

27.22.4.15.3   Test purpose

To verify that the ME returns the following requested local information within a TERMINAL RESPONSE:

- location information:

    - Mobile Country Code (MCC);

- Mobile Network Code (MNC);

- Location Area Code (LAC); and

- cell ID of the current serving cell;

- the IMEI of the ME;

- the Network Measurement Results and the BCCH channel list;

- the current date, time and time zone;

- the current ME language setting;

- the Timing Advance;

if the local information is stored in the ME; otherwise, sends the correct error code to the SIM in the TERMINAL RESPONSE.

27.22.4.15.4   Method of tests

27.22.4.15.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The ME is connected to the System Simulator and has performed the location update procedure.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001;

- Timing advance = 0;

- Neighbour allocations = 561, 565, 568, 569, 573, 575, 577, 581, 582 and 585.

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001;

- Timing advance = 0;

- Neighbour allocations = 561, 565, 568, 569, 573, 575, 577, 581, 582 and 585.

The elementary files are coded as the SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.15.4.2 Procedure

Expected Sequence 1.1 (PROVIDE LOCAL INFORMATION, Local Info (MCC, MNC, LAC & Cell ID))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.1.1A or TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.1.1B	[Command performed successfully, MCC MNC LAC and Cell Identity as system simulator, option A shall apply for GSM parameters] [Command performed successfully, MCC MNC LAC and Cell Identity as system simulator, option B shall apply for PCS1900 parameters]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.1.1

Logically:

> Command details
>> Command number: 1
>> Command type: PROVIDE LOCAL INFORMATION
>> Qualifier: "00" Location information (MCC MNC LAC and Cell Identity)
> Device identities
>> Source device: SIM
>> Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	00	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.1.1A

Logically:

> Command details
>> Command number: 1
>> Command type: PROVIDE LOCAL INFORMATION
>> Qualifier: "00" Location information (MCC MNC LAC and Cell Identity)
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
>> Location Information
>> MCC & MNC: MCC = 001, MNC = 01
>> Location Area Code: 0001
>> Cell Identity Value: 0001

Coding:

BER-TLV:	81	03	01	26	00	82	02	82	81	83	01	00
	93	07	00	F1	10	00	01	00	01			

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "00" Location information (MCC MNC LAC and Cell Identity)
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Location Information
    MCC & MNC: MCC = 001, MNC = 011
    Location Area Code: 0001
    Cell Identity Value: 0001

Coding:

BER-TLV:	81	03	01	26	00	82	02	82	81	83	01	00
	93	07	00	11	10	00	01	00	01			

Expected Sequence 1.2 (PROVIDE LOCAL INFORMATION, IMEI of the ME)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.2.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.2.1	[Command performed successfully, IMEI as system simulator]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.2.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "01" IMEI of the ME
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	01	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.2.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "01" IMEI of the ME
Device identities
    Source device: ME
    Destination device: SIM

Result
    General Result: Command performed successfully
IMEI
    IMEI of the ME: The IMEI of the ME

The result coding depends on the Mobile IMEI value.

Coding:

BER-TLV:	81	03	01	26	01	82	02	82	81	83	01	00
	94	08	XX	XX	XX	XX	XX	XX	XX	XX		

As an example, if the IMEI of the mobile is "123456789012345" then XX XX XX XX XX XX XX XX = 1A 32 54 76 98 10 32 54. For further details see also 3GPP TS 04.08 [10], clause 10.5.1..

Expected Sequence 1.3 (PROVIDE LOCAL INFORMATION, Network Measurement Results (NMR))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.3.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.3.1	[Command performed successfully, NMR as system simulator]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.3.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "02" Network Measurement Results
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	02	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.3.1

The actual values of the measurements are not tested.

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "02" Network Measurement Results
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Network Measurement Results   RXLEV-FULL-SERVING-CELL=52, BA not used, DTX not used, as an example in the BER-TLV)
    BCCH channel list   561, 565, 568, 569, 573, 575, 577, 581, 582 and 585

Coding:

BER-TLV:	81	03	01	26	02	82	02	82	81	83	01	00
	96	10	34	34	00	00	00	00	00	00	00	00
	00	00	00	00	00	00	9D	0D	8C	63	58	E2
	39	8F	63	F9	06	45	91	A4	90			

Expected Sequence 1.4 (PROVIDE LOCAL INFORMATION, Date, Time, Time Zone)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.4.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.4.1	[Command performed successfully]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.4.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "03" Date Time and Time Zone
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	03	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.4.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "03" Date Time and Time Zone
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Date-Time and Time Zone   date an time set by the user: 7th May 2002, 14h 08mn 17s, no time zone information, as an example in TLV

Coding:

BER-TLV:	81	03	01	26	03	82	02	82	81	83	01	00
	A6	07	20	50	70	41	80	71	FF			

Expected Sequence 1.5 (PROVIDE LOCAL INFORMATION, Language setting)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.5.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.5.1	[Command performed successfully]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.5.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "04" Language setting
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	04	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.5.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "04" Language setting
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Language   English ("en") as an example for TLV

Coding:

BER-TLV:	81	03	01	26	04	82	02	82	81	83	01	00
	AD	02	65	6E								

Expected Sequence 1.6 (PROVIDE LOCAL INFORMATION, Timing advance)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PROVIDE LOCAL INFORMATION 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.6.1	
4	ME → SIM	TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.6.1	[Command performed successfully]

PROACTIVE COMMAND: PROVIDE LOCAL INFORMATION 1.6.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "05" Timing Advance
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	26	05	82	02	81	82

TERMINAL RESPONSE: PROVIDE LOCAL INFORMATION 1.6.1

Logically:

Command details
    Command number: 1
    Command type: PROVIDE LOCAL INFORMATION
    Qualifier: "05" Timing Advance
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timing Advance   2 bytes
    ME status: "00" ME is in idle state Idle State
    Timing Advance: 0

Coding:

BER-TLV:	81	03	01	26	05	82	02	82	81	83	01	00
	AE	02	00	00								

27.22.4.15.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.4.16   SET UP EVENT LIST

27.22.4.16.1   SET UP EVENT LIST (normal)

27.22.4.16.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.16.1.2   Conformance requirement

The ME shall support the Proactive SIM: Set Up Event List facility as defined in:

- 3GPP TS 11.14 [15] clause 6.4.16 and clause 6.6.16.

Additionally the ME shall support the Event Download: Call Connect and the Event Download: Call Disconnected mechanism as defined in:

- 3GPP TS 11.14 [15] clause 11.2, clause 11.2.1, clause 11.2.2, clause 11.3, clause 11.3.1 and clause 11.3.2.

27.22.4.16.1.3   Test purpose

To verify that the ME accepts a list of events that it shall monitor the current list of events supplied by the SIM, is able to have this current list of events replaced and is able to have the list of events removed.

To verify that when the ME has successfully accepted or removed the list of events, it shall send TERMINAL RESPONSE (OK) to the SIM and when the ME is not able to successfully accept or remove the list of events, it shall send TERMINAL RESPONSE (Command beyond ME's capabilities).

27.22.4.16.1.4   Method of test

27.22.4.16.1.4.1   Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default with the following exceptions.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The elementary files for the second SIM Simulator are coded as SIM Application Toolkit default.

27.22.4.16.1.4.2   Procedure

Expected Sequence 1.1 (SET UP EVENT LIST, Set Up Call Connect Event)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	SS → ME	SETUP 1.1.1	[Incoming call alert]
7	USER → ME	User shall accept the incoming call	
8	ME → SS	CONNECT 1.1.1	
9	ME → SIM	ENVELOPE: EVENT DOWNLOAD CALL CONNECTED 1.1.1	[Call Connected Event]
10	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

```
Command details
      Command number:       1
      Command type:         SET UP EVENT LIST
      Command qualifier:    '00'
Device identities
      Source device:        SIM
      Destination device:   ME
Event list
      Event 1:              Call Connected
```

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	01										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP EVENT LIST
    Command qualifier: '00'
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

SET UP 1.1.1

Logically:

Transaction identifier
    Ti value: 0 (bit 5-7)
Address
    TON: "Unknown"
    NPI: "ISDN/ telephone numbering plan"
    Dialling number string: "9876"

CONNECT 1.1.1

Logically:

Transaction identifier
    Ti value: 0 (bit 5-7)
    Ti flag: 1 (bit 8)

ENVELOPE: EVENT DOWNLOAD CALL CONNECTED 1.1.1Logically

Event list
    Event 1: Call Connected
Device identities
    Source device: Network
    Destination device: SIM
Transaction identifier
    Ti value: 0 (bit 5-7)
    Ti flag: 1 (bit 8)

Coding:

BER-TLV:	D6	0A	99	01	01	82	02	83	81	9C	01	80

Expected Sequence 1.2 (SET UP EVENT LIST, Replace Event)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.2.1	[Call Connected and Call Disconnected Events]
	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.2.1	
4	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.2.2	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.2.2	[Call Disconnected Event]
7	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.2.2	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
10	SS → ME	SETUP 1.2.2	[Incoming call alert]
11	USER → ME	User shall accept the incoming call	
12	ME → SS	CONNECT 1.2.2	
13	SS → ME	DISCONNECT 1.2.2	
	ME → SIM	ENVELOPE: EVENT DOWNLOAD CALL DISCONNECT 1.2.2	[Call Disconnect Event]
14	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: SET UP EVENT LIST 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Connected
        Event 2:   Call Disconnected

Coding:

BER-TLV:	D0	0D	81	03	01	05	00	82	02	81	82	99
	02	01	02									

TERMINAL RESPONSE: SET UP EVENT LIST 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

PROACTIVE COMMAND: SET UP EVENT LIST 1.2.2

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Disconnected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	02										

TERMINAL RESPONSE: SET UP EVENT LIST 1.2.2

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

SET UP 1.2.2

Logically:

    Transaction identifier
        Ti value: 0 (bit 5-7)
        Ti flag: 0 (bit 8)

    Address
        TON: "Unknown"
        NPI: "ISDN/ telephone numbering plan"
        Dialling number string: "9876"

CONNECT 1.2.2

Logically:

    Transaction identifier

Ti value: 0 (bit 5-7)
Ti flag: 1 (bit 8)
DISCONNECT 1.2.2

Logically:

Transaction identifier
Ti value: 0 (bit 5-7)
Ti flag: 0 (bit 8)
Cause
Value: Normal call clearing

ENVELOPE: EVENT DOWNLOAD CALL DISCONNECTED 1.2.2

Logically:

Event list
Event 1:   Call Disconnected
Device identities
Source device: Network
Destination device: SIM
Transaction identifier
Ti value: 0 (bit 5-7)
Ti flag: 0 (bit 8)
Cause
Value: Normal call clearing

Coding:

BER-TLV:	D6	0E	99	01	02	82	02	83	81	9C	01	00
	9A	02	60	90								

Expected Sequence 1.3 (SET UP EVENT LIST, Remove Event)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.3.1	[Call Connected Event]
	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.3.1	
4	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.3.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.3.2	[Remove Event]
7	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.3.2	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
10	SS → ME	SETUP 1.3.2	[Incoming call alert]
11	USER → ME	User shall accept the incoming call	
12	ME → SS	CONNECT 1.3.2	
13	ME → SIM	No ENVELOPE: EVENT DOWNLOAD (call connected) sent	
14	SS → ME	DISCONNECT 1.3.2	

PROACTIVE COMMAND: SET UP EVENT LIST 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Connected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	01										

TERMINAL RESPONSE: SET UP EVENT LIST 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

PROACTIVE COMMAND: SET UP EVENT LIST 1.3.2

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
        Event list: Empty

Coding:

BER-TLV:	D0	0B	81	03	01	05	00	82	02	81	82	99
	00											

TERMINAL RESPONSE: SET UP EVENT LIST 1.3.2

Logically:

    Command details
        Command number: 1

	Command type:	SET UP EVENT LIST
	Command qualifier:	'00'
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

SET UP 1.3.2

Logically:

Transaction identifier
    Ti value: 0 (bit 5-7)
    Ti flag: 0 (bit 8)

Address
    TON: "Unknown"
    NPI: "ISDN/ telephone numbering plan"
    Dialling number string: "9876"

CONNECT 1.3.2

Logically:

Transaction identifier
    Ti value: 0 (bit 5-7)

    Ti flag: 1 (bit 8)

DISCONNECT 1.3.2

Logically:

Transaction identifier
    Ti value: 0 (bit 5-7)
    Ti flag: 0 (bit 8)

Cause
    Value: Normal call clearing

Expected Sequence 1.4 (SET UP EVENT LIST, Remove Event on ME Power Cycle)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.4.1	[Call Connected Event]
	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.4.1	
4	SIM → ME	PROACTIVE SIM SESSION ENDED	
5	User → ME	Power off ME	
6	User → ME	Power on ME	
7	SS → ME	SETUP 1.4A	[Incoming call alert]
8	USER → ME	User shall accept the incoming call	
9	ME → SS	CONNECT 1.4.1	
10	ME → SIM	No ENVELOPE: EVENT DOWNLOAD (call connected) sent	
11	SS → ME	DISCONNECT 1.4.1	

PROACTIVE COMMAND: SET UP EVENT LIST 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Connected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	01										

TERMINAL RESPONSE: SET UP EVENT LIST 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

SET UP 1.4.1

Logically:

> Transaction identifier
>> Ti value: 0 (bit 5-7)
>> Ti flag: 1 (bit 8)
> Address
>> TON: "Unknown"
>> NPI: "ISDN/ telephone numbering plan"
>> Dialling number string: "9876"

CONNECT 1.4.1

Logically:

> Transaction identifier
>> Ti value: 0 (bit 5-7)
>> Ti flag: 1 (bit 8)

DISCONNECT 1.4.1

Logically:

> Transaction identifier
>> Ti value: 0 (bit 5-7)
>> Ti flag: 0 (bit 8)
> Cause
>> Value: Normal call clearing

27.22.4.16.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.4.

27.22.4.17 PERFORM CARD APDU

27.22.4.17.1 PERFORM CARD APDU (normal)

27.22.4.17.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.17.1.2 Conformance requirement

The ME shall support the Proactive SIM: Perform Card APDU facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 5.2, clause 6.4.17, clause 6.6.17, clause 6.8, clause 12.6, clause 12.7, clause 12.35, clause 12.36 and clause 12.12.9.

Additionally the ME shall support multiple card operation as defined in:

- 3GPP TS 11.14 [15] clause 6.4.19, clause 6.6.19, clause 6.4.18 and clause 6.6.18.

27.22.4.17.1.3 Test purpose

To verify that the ME sends an APDU command to the additional card identified in the PERFORM CARD APDU proactive SIM command, and successfully returns the result of the execution of the command in the TERMINAL RESPONSE command send to the SIM.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen.

In this particular case a special Test-SIM (TestSIM) with T=0 protocol is chosen as additional card for the additional ME card reader (for coding of the TestSIM see annex D).

27.22.4.17.1.4   Method of test

27.22.4.17.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The TestSIM is inserted in the additional ME card reader.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

If the ME supports a detachable card reader, the card reader shall be attached to the ME.

The elementary files of the TestSIM are coded as defined in annex D. Another card with different parameters may be used as TestSIM to execute these tests. In this case the SIM Simulator shall take into account the corresponding response data.

27.22.4.17.1.4.2   Procedure

Expected Sequence 1.1 (PERFORM CARD APDU, card reader 1, additional card inserted, Select MF and Get Response)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 1.1.1	[Power on card reader 1]
4	ME → SIM2	RESET CARD	[Perform electrical initialization]
5	SIM2 → ME	ANSWER TO RESET 1.1	[ATR]
6	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.1.1	[ATR]
7	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.1.1	[Select Masterfile]
10	ME → SIM2	C-APDU: SELECT 1.1	[Select Masterfile]
11	SIM2 → ME	R-APDU: SELECT 1.1	[Command performed successfully - length '1B' of response data]
12	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.1.1	
13	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.1.2	
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.1.2	[Get Response with length '1B']
16	ME → SIM2	C-APDU: GET RESPONSE 1.1	[Get Response with length '1B']
17	SIM2 → ME	R-APDU: GET RESPONSE 1.1	[Response data with length '1B']
18	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.1.2	[Response data with length '1B']

PROACTIVE COMMAND POWER ON CARD 1.1.1

Logically:

Command details

          Command number: 1
          Command type: POWER ON CARD
          Command qualifier: "00"
     Device identities
          Source device: SIM
          Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	31	00	82	02	81	11

ANSWER TO RESET 1.1

Logically:

          TS (Initial character):   '3B'
          T0 (Format character): '86' (Following interface characters: TD(1), number of historical characters: 6)
          TD1:   '00' (Following interface characters: none, Transfer protocol: T=0)
          T1:   91
          T2:   99
          T3:   00
          T4:   12
          T5:   C1
          T6:   00

Coding:

Coding:	3B	86	00	91	99	00	12	C1	00

TERMINAL RESPONSE: POWER ON CARD 1.1.1

Logically:

     Command details
          Command number: 1
          Command type: POWER ON CARD
          Command qualifier: "00"
     Device identities
          Source device: ME
          Destination device: SIM
     Result
          General Result: Command performed successfully
     Card ATR
          TS (Initial character):   '3B'
          T0 (Format character): '86' (Following interface characters: TD(1), number of historical characters: 6)
          TD1:   '00' (Following interface characters: none, Transfer protocol: T=0)
          T1:   91
          T2:   99
          T3:   00
          T4:   12
          T5:   C1
          T6:   00

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	01	00
	A1	09	3B	86	00	91	99	00	12	C1	00	

PROACTIVE COMMAND PERFORM CARD APDU 1.1.1

Logically:

Command details
    Command number: 1
    Command type: PERFORM CARD APDU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Card Reader 1
C-APDU
    Class: 'A0'
    Instruction: SELECT
    P1 parameter: '00'
    P2 parameter: '00'
    Lc: '02'
    Data: Master File

Coding:

BER-TLV:	D0	12	81	03	01	30	00	82	02	81	11	A2
	07	A0	A4	00	00	02	3F	00				

C-APDU: SELECT 1.1

Logically:

C-APDU
    Class: 'A0'
    Instruction: SELECT
    P1 parameter: '00'
    P2 parameter: '00'
    Lc: '02'
    Data: Master File

Coding:

Coding:	A0	A4	00	00	02	3F	00

R-APDU: SELECT 1.1

Logically:

Status Words
    SW1 / SW2:   Command performed successfully - length '1B' of response data

Coding:

Coding:	9F	1B

TERMINAL RESPONSE: PERFORM CARD APDU 1.1.1

Logically:

Command details
    Command number: 1
    Command type: PERFORM CARD APDU
    Command qualifier: "00"
Device identities
    Source device: ME

         Destination device: SIM
   Result
         General Result: Command performed successfully
   R-APDU
         Status Words
            SW1 / SW2:   Command performed successfully - length '1B' of response data

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A3	02	9F	1B								

PROACTIVE COMMAND PERFORM CARD APDU 1.1.2

Logically:

   Command details
         Command number: 1
         Command type: PERFORM CARD APDU
         Command qualifier: '00'
   Device identities
         Source device: SIM
         Destination device: Card Reader 1
   C-APDU
         Class: 'A0'
         Instruction: GET RESPONSE
         P1 parameter: '00'
         P2 parameter: '00'
         Le: '1B'

Coding:

BER-TLV:	D0	10	81	03	01	30	00	82	02	81	11	A2
	05	A0	C0	00	00	1B						

C-APDU: GET RESPONSE 1.1

Logically:

   C-APDU
         Class: 'A0'
         Instruction: GET RESPONSE
         P1 parameter: '00'
         P2 parameter: '00'
         Le: '1B'

Coding:

Coding:	A0	C0	00	00	1B

R-APDU: GET RESPONSE 1.1

Logically:

   R-APDU data
         RFU: '00 00'
         Not allocated memory: '653 bytes'
         File ID: Master File
         Type of file: MF
         RFU: 00 00 22 FF 01'

Length of following data:	14 bytes'
File characteristics:	
Clock Stop:	Not allowed
Min. frequence for GSM algorithm:	13/8 MHz
Technology identification:	3V Technology SIM
CHV1:	disabled
DFs in current directory:	2
EFs in current directory:	8
Number of CHV and admin. Codes:	3
RFU byte 18:	00
CHV1 status:	
False representations remaining:	3
RFU-bits 7-5:	000
Secret code:	Initialized
Unlock CHV1 status:	
False representations remaining:	10
RFU-bits 7-5:	000
Secret code:	Initialized
CHV2 status:	
False representations remaining:	3
RFU-bits 7-5:	000
Secret code:	Initialized
Unlock CHV2 status:	
False representations remaining:	10
RFU-bits 7-5:	000
Secret code:	Initialized
RFU bytes 23:	00
Reserved for admin. management:	00 83 00 FF
Status Words	
SW1 / SW2:	Normal ending of command

Coding:

Coding:	00	00	02	8D	3F	00	01	00	00	22	FF	01
	0E	9B	02	08	03	00	83	8A	83	8A	00	00
	83	00	FF	90	00							

TERMINAL RESPONSE: PERFORM CARD APDU 1.1.2

Logically:

Command details	
Command number:	1
Command type:	PERFORM CARD APDU
Command qualifier:	"00"
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully
R-APDU data	
RFU:	'00 00'
Not allocated memory:	'653 bytes'
File ID:	Master File
Type of file:	MF
RFU:	00 00 22 FF 01'
Length of following data:	14 bytes'
File characteristics:	
Clock Stop:	Not allowed
Min. frequence for GSM algorithm:	13/8 MHz
Technology identification:	3V Technology SIM

CHV1:	disabled	
DFs in current directory:	2	
EFs in current directory:		
Number of CHV and admin. Codes:	3	
RFU byte 18:	00	
CHV1 status:		
False representations remaining:	3	
RFU-bits 7-5:	000	
Secret code:	Initialized	
Unlock CHV1 status:		
False representations remaining:	10	
RFU-bits 7-5:	000	
Secret code:	Initialized	
CHV2 status:		
False representations remaining:	3	
RFU-bits 7-5:	000	
Secret code:	Initialized	
Unlock CHV2 status:		
False representations remaining:	10	
RFU-bits 7-5:	000	
Secret code:	Initialized	
RFU bytes 23:	00	
Reserved for admin. management:	00 83 00 FF	
Statu Words		
SW1 / SW2:	Normal ending of command	

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A3	0F	00	00	02	8D	3F	00	01	00	00	22
	FF	01	0E	90	00							

Expected Sequence 1.2 (PERFORM CARD APDU, card reader 1, additional card inserted, Select DF GSM, Select EF PLMN , Update Binary, Read Binary on EF PLMN)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 1.1	[Power on card reader 1]
4	ME → SIM2	RESET CARD	[Perform electrical initialization]
5	SIM2 → ME	ANSWER TO RESET 1.1	[ATR]
6	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.1	[ATR]
7	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.2.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.2.1	[Select GSM]
10	ME → SIM2	C-APDU: SELECT 1.2a	[Select GSM]
11	SIM2 → ME	R-APDU: SELECT 1.2a	
12	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.2.1	
13	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.2.2	
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.2.2	[Select PLMN]
16	ME → SIM2	C-APDU: SELECT 1.2b	[Select PLMN]
17	SIM2 → ME	R-APDU: SELECT 1.2b	

Step	Direction	MESSAGE / Action	Comments
18	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.2.2	
19	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.2.3	
20	ME → SIM	FETCH	
21	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.2.3	[Update Binary]
22	ME → SIM2	C-APDU: UPDATE BINARY 1.2	[Update Binary]
23	SIM2 → ME	R-APDU: UPDATE BINARY 1.2	
24	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.2.3	
25	SIM → ME	PROACTIVE COMMAND PENDING: PERFORM CARD APDU 1.2.4	
26	ME → SIM	FETCH	
27	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.2.4	[Read Binary]
28	ME → SIM2	C-APDU: READ BINARY 1.2	[Read Binary]
29	SIM2 → ME	R-APDU: READ BINARY 1.2	
30	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.2.4	
31	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.2.5	[Update Binary]
32	ME → SIM2	C-APDU: UPDATE BINARY 1.2a	[Update Binary]
33	SIM2 → ME	R-APDU: UPDATE BINARY 1.2	
34	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.2.3	

PROACTIVE COMMAND PERFORM CARD APDU 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card Reader 1
    C-APDU
        Class: 'A0'
        Instruction: SELECT
        P1 parameter: '00'
        P2 parameter: '00'
        Lc: '02'
        Data: DF GSM

Coding:

BER-TLV:	D0	12	81	03	01	30	00	82	02	81	11	A2
	07	A0	A4	00	00	02	7F	20				

PROACTIVE COMMAND: PERFORM CARD APDU 1.2.2

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities

	Source device:	SIM
	Destination device:	Card Reader 1
C-APDU		
	Class:	'A0'
	Instruction:	SELECT
	P1 parameter:	'00'
	P2 parameter:	'00'
	Lc:	'02'
	Data:	EF PLMN

Coding:

BER-TLV:	D0	12	81	03	01	30	00	82	02	81	11	A2
	07	A0	A4	00	00	02	6F	30				

PROACTIVE COMMAND: PERFORM CARD APDU 1.2.3

Logically:

Command details		
	Command number:	1
	Command type:	PERFORM CARD APDU
	Command qualifier:	"00"
Device identities		
	Source device:	SIM
	Destination device:	Card Reader 1
C-APDU		
	Class:	'A0'
	Instruction:	UPDATE BINARY
	P1 parameter:	'00'
	P2 parameter:	'00'
	Lc:	'18'
	Data:	'00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0B 0E 0F 10 11 12 13 14 15 16 17'

Coding:

BER-TLV:	D0	28	81	03	01	30	00	82	02	81	11	A2
	1D	A0	D6	00	00	18	00	01	02	03	04	05
	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11
	12	13	14	15	16	17						

PROACTIVE COMMAND: PERFORM CARD APDU 1.2.4

Logically:

Command details		
	Command number:	1
	Command type:	PERFORM CARD APDU
	Command qualifier:	"00"
Device identities		
	Source device:	SIM
	Destination device:	Card Reader 1
C-APDU		
	Class:	'A0'
	Instruction:	READ BINARY
	P1 parameter:	'00'
	P2 parameter:	'00'
	Le:	'18'

Coding:

BER-TLV:	D0	10	81	03	01	30	00	82	02	81	11	A2
	05	A0	B0	00	00	18						

PROACTIVE COMMAND: PERFORM CARD APDU 1.2.5

Logically:

Command details
    Command number: 1
    Command type: PERFORM CARD APDU
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Card Reader 1
C-APDU
    Class: 'A0'
    Instruction: UPDATE BINARY
    P1 parameter: '00'
    P2 parameter: '00'
    Lc: '18'
    Data: 'FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF' FF FF FF FF FF FF FF FF'

Coding:

BER-TLV:	D0	28	81	03	01	30	00	82	02	81	11	A2
	1D	A0	D6	00	00	18	FF	FF	FF	FF	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	FF	FF	FF	FF	FF	FF						

C-APDU: SELECT 1.2a

Logically:

C-APDU
    Class: 'A0'
    Instruction: SELECT
    P1 parameter: '00'
    P2 parameter: '00'
    Lc: '02'
    Data: DF GSM

Coding:

Coding:	A0	A4	00	00	02	7F	20

C-APDU: SELECT 1.2b

Logically:

C-APDU
    Class: 'A0'
    Instruction: SELECT
    P1 parameter: '00'
    P2 parameter: '00'
    Lc: '02'
    Data: EF PLMN

Coding:

Coding:	A0	A4	00	00	02	6F	30

C-APDU: UPDATE BINARY 1.2

Logically:

C-APDU

Class:	'A0'
Instruction:	UPDATE BINARY
P1 parameter:	'00'
P2 parameter:	'00'
Lc:	'18'
Data:	'00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0B 0E 0F 10 11 12 13 14 15 16 17'

Coding:

Coding:	A0	D6	00	00	18	00	01	02	03	04	05	06
	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12
	13	14	15	16	17							

C-APDU: READ BINARY 1.2

Logically:

C-APDU

Class:	'A0'
Instruction:	READ BINARY
P1 parameter:	'00'
P2 parameter:	'00'
Le:	'18'

Coding:

Coding:	A0	B0	00	00	18

C-APDU: UPDATE BINARY 1.2a

Logically:

C-APDU

Class:	'A0'
Instruction:	UPDATE BINARY
P1 parameter:	'00'
P2 parameter:	'00'
Lc:	'18'
Data:	'FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF'

Coding:

Coding:	A0	D6	00	00	18	FF	FF	FF	FF	FF	FF	FF
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	FF	FF	FF	FF	FF							

R-APDU: SELECT 1.2a

Logically:

Status Words
SW1 / SW2:   Normal ending of command - length '1B' of response data

Coding:

Coding:	9F	1B

R-APDU: SELECT 1.2b

Logically:

Status Words
  SW1 / SW2:   Normal ending of command - length '0F' of response data

Coding:

Coding:	9F	0F

R-APDU: UPDATE BINARY 1.2

Logically:

Status Words
  SW1 / SW2:   Normal ending of command

Coding:

Coding:	90	00

R-APDU: READ BINARY 1.2

Logically:

R-APDU data
  Data: '00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0B 0E 0F 10 11 12 13 14 15 16 17'
Status Words
  SW1 / SW2:   Normal ending of command

Coding:

Coding:	00	01	02	03	04	05	06	07	08	09	0A	0B
	0C	0D	0E	0F	10	11	12	13	14	15	16	17
	90	00										

TERMINAL RESPONSE: PERFORM CARD APDU 1.2.1

Logically:

Command details
  Command number: 1
  Command type: PERFORM CARD APDU
  Command qualifier: "00"
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Command performed successfully
R-APDU
  Status Words
   SW1 / SW2: Command performed successfully - length 1B of response data

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A3	02	9F	1B								

TERMINAL RESPONSE: PERFORM CARD APDU 1.2.2

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    R-APDU
        Status Words
            SW1 / SW2:   Command performed successfully - length 0F of response data

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A3	02	9F	0F								

TERMINAL RESPONSE: PERFORM CARD APDU 1.2.3

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    R-APDU
        Status Words
            SW1 / SW2:   Normal ending of command

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A3	02	90	00								

TERMINAL RESPONSE: PERFORM CARD APDU 1.2.4

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM

Result
    General Result: Command performed successfully
R-APDU
    R-APDU data
    Data: '00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0B 0E 0F 10 11 12 13 14 15 16 17'
    Status Words
        SW1 / SW2:   Normal ending of command

Coding:

BER-TLV:	81	03	01	30	00	82	02	11	81	83	01	00
	A2	81	EF	A0	D6	00	00	EC	00	01	02	03
	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
	10	11	12	13	14	15	16	17	90	00		

Expected Sequence 1.3 (PERFORM CARD APDU, card reader 1, card inserted, card powered off)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER OFF CARD 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER OFF CARD 1.3.1	[Power off card reader 1]
4	ME → SIM2	POWER OFF CARD	[Power off card reader 1]
5	ME → SIM	TERMINAL RESPONSE: POWER OFF CARD 1.3.1	[Successful]
6	ME	SIM2 is powered off from ME card reader	
7	SIM → ME	PROACTIVE COMMAND PENDING: PEFORM CARD APDU 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.1.1	[Select Master File]
10	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.3.1	[Card powered off]

PROACTIVE COMMAND: POWER OFF CARD 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	32	00	82	02	81	11

TERMINAL RESPONSE: POWER OFF CARD 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	32	00	82	02	82	81	83	01
	00										

TERMINAL RESPONSE: PERFORM CARD APDU 1.3.1

Logically:

Command details
    Command number: 1
    Command type: PERFORM CARD APDU
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: MultipleCard commands error
    Additional Information: Card powered off

Coding:

BER-TLV:	81	03	01	30	00	82	02	82	81	83	02
	38	04									

Expected Sequence 1.4 (PERFORM CARD APDU, card reader 1, no card inserted)

Step	Direction	MESSAGE / Action	Comments
1	ME	SIM2 is removed from ME card reader	
2	SIM → ME	PROACTIVE COMMAND PENDING: PEFORM CARD APDU 1.1.1	
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.1.1	[Select Master File]
5	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.4.1	[No card inserted]

TERMINAL RESPONSE: PERFORM CARD APDU 1.4.1

Logically:

Command details
    Command number: 1
    Command type: PERFORM CARD APDU
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: MultipleCard commands error
    Additional Information: Card removed or not present

Coding:

BER-TLV:	81	03	01	30	00	82	02	82	81	83	02
	38	02									

Expected Sequence 1.5 (PERFORM CARD APDU, card reader 7 (which is not the valid card reader identifier of the additional ME card reader))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: PEFORM CARD APDU 1.5.1	[invalid card reader ID]
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.5.1	[Select Master File]
5	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 1.5.1	[Specified reader not valid]

PROACTIVE COMMAND: PERFORM CARD APDU 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card Reader 7
    C-APDU
        Class: 'A0'
        Instruction: SELECT
        P1 parameter: '00'
        P2 parameter: '00'
        Lc: '02'
        Data: Master File

Coding:

BER-TLV:	D0	12	81	03	01	30	00	82	02	81	17	A2
	07	A0	A4	00	00	02	3F	00				

C-APDU: SELECT 1.1

Logically:

    C-APDU
        Class: 'A0'
        Instruction: SELECT
        P1 parameter: '00'
        P2 parameter: '00'
        Lc: '02'
        Data: Master File

Coding:

Coding:	A0	A4	00	00	02	3F	00

TERMINAL RESPONSE: PERFORM CARD APDU 1.5.1

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: MultipleCard commands error
        Additional Information: Specified reader not valid

Coding:

BER-TLV:	81	03	01	30	00	82	02	82	81	83	02
	38	09									

27.22.4.17.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.5.

27.22.4.17.2   PERFORM CARD APDU (detachable card reader)

27.22.4.17.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.17.2.2   Conformance requirement

27.22.4.17.2.3   Test purpose

To verify that the ME sends an APDU command to the additional card identified in the PERFORM CARD APDU proactive SIM command, and successfully returns the result of the execution of the command in the TERMINAL RESPONSE command send to the SIM.

27.22.4.17.2.4   Method of test

27.22.4.17.2.4.1   Initial conditions

The ME is connected to the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The card reader shall be detached from the ME.

27.22.4.17.2.4.2 Procedure

Expected Sequence 2.1 (PERFORM CARD APDU, card reader 1, card reader detached)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: PEFORM CARD APDU 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: PERFORM CARD APDU 1.1.1	[Select Master File]
4	ME → SIM	TERMINAL RESPONSE: PERFORM CARD APDU 2.1.1	[Card reader detached]

PROACTIVE COMMAND: PERFORM CARD APDU 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card Reader 1
    C-APDU
        Class: 'A0'
        Instruction: SELECT
        P1 parameter: '00'
        P2 parameter: '00'
        Lc: '02'
        Data: Master File

Coding:

BER-TLV:	D0	12	81	03	01	30	00	82	02	81	11	A2
	07	A0	A4	00	00	02	3F	00				

TERMINAL RESPONSE: PERFORM CARD APDU 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: PERFORM CARD APDU
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: MultipleCard commands error
        Additional Information: Card reader removed or not present

Coding:

BER-TLV:	81	03	01	30	00	82	02	82	81	83	02
	38	01									

27.22.4.17.2.5   Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.18   POWER OFF CARD

27.22.4.18.1   POWER OFF CARD (normal)

27.22.4.18.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.18.1.2   Conformance requirement

The ME shall support the Proactive SIM: Power Off Card facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.18, clause 6.6.18, clause 12.6, clause 12.7, clause 12.12, clause 12.12.9, clause 5.2 and annex H.

27.22.4.18.1.3   Test purpose

To verify that the ME closes a session with the additional card identified in the POWER OFF CARD proactive SIM command, and successfully returns result in the TERMINAL RESPONSE command send to the SIM.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen.

27.22.4.18.1.4   Method of test

27.22.4.18.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The ME card reader is connected to the second SIM Simulator (SIM2). Instead of the second SIM Simulator a card with different parameters may be used as SIM2 to execute these tests. In this case the SIM Simulator shall take into account the corresponding response data.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

If the ME supports a detachable card reader, the card reader shall be attached to the ME.

Prior to this test the ME shall have powered on the second SIM Simulator (SIM2).

27.22.4.18.1.4.2   Procedure

Expected Sequence 1.1 (POWER OFF CARD, card reader 1)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER OFF CARD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER OFF CARD 1.1.1	[Power off card reader 1]
4	ME → SIM2	POWER OFF CARD	[Power off card reader 1]
5	ME → SIM	TERMINAL RESPONSE: POWER OFF CARD 1.1.1	[Successful]

PROACTIVE COMMAND: POWER OFF CARD 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	32	00	82	02	81	11

TERMINAL RESPONSE: POWER OFF CARD 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	32	00	82	02	82	81	83	01
	00										

Expected Sequence 1.2 (POWER OFF CARD, card reader 1, no card inserted)

Step	Direction	MESSAGE / Action	Comments
1	SIM2	SIM2 is removed from ME card reader	
2	SIM → ME	PROACTIVE COMMAND PENDING: POWER OFF CARD 1.1.1	
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: POWER OFF CARD 1.1.1	[Power off card reader 1]
5	ME → SIM	TERMINAL RESPONSE: POWER OFF CARD 1.2.1	[No card inserted]

TERMINAL RESPONSE: POWER OFF CARD 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: MultipleCard commands error
        Additional Information: Card removed or not present

Coding:

BER-TLV:	81	03	01	32	00	82	02	82	81	83	02
	38	02									

27.22.4.18.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.2.

27.22.4.18.2 POWER OFF CARD (detachable card reader)

27.22.4.18.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.18.2.2 Conformance requirement

Void.

27.22.4.18.2.3 Test purpose

To verify that the ME closes a session with the additional card identified in the POWER OFF CARD proactive SIM command, and successfully returns result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.18.2.4 Method of test

27.22.4.18.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The ME card reader is connected to the second SIM Simulator (SIM2).

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

Prior to this test the ME shall have powered on the second SIM Simulator (SIM2).

The card reader shall be detached from the ME.

27.22.4.18.2.4.2 Procedure

Expected Sequence 2.1 (POWER OFF CARD, card reader 1, no card reader attached)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER OFF CARD 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER OFF CARD 2.1.1	[Power off card reader 1]
4	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 2.1.1	[Card reader removed or not present]

PROACTIVE COMMAND: POWER OFF CARD 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"

Device identities
    Source device: SIM
    Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	32	00	82	02	81	11

TERMINAL RESPONSE: POWER OFF CARD 2.1.1

Logically:

Command details
    Command number: 1
    Command type: POWER OFF CARD
    Command qualifier: "00"
Device identities
    Source device: ME   Destination device: SIM
Result
    General Result: MultipleCard commands error
    Additional Information: Card reader removed or not present

Coding:

BER-TLV:	81	03	01	32	00	82	02	82	81	83	02
	38	01									

27.22.4.18.2.5   Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.19   POWER ON CARD

27.22.4.19.1   POWER ON CARD (normal)

27.22.4.19.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.19.1.2   Conformance requirement

The ME shall support the Proactive SIM: Power On Card facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.19, clause 6.6.19, clause 12.6, clause 12.7, clause 12.12, clause 12.12.9, clause 12.34, clause 5.2 and annex H.

- ISO /IEC 7816-3 [21].

27.22.4.19.1.3   Test purpose

To verify that the ME starts a session with the additional card identified in the POWER ON CARD proactive SIM command, and successfully returns the Answer To Reset within the TERMINAL RESPONSE command send to the SIM.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen.

27.22.4.19.1.4   Method of test

27.22.4.19.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The ME card reader is connected to the second SIM Simulator (SIM2). Instead of the second SIM Simulator a card with different parameters may be used as SIM2 to execute these tests. In this case the SIM Simulator shall take into account the corresponding response data.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

If the ME supports a detachable card reader, the card reader shall be attached to the ME.

27.22.4.19.1.4.2   Procedure

Expected Sequence 1.1 (POWER ON CARD, card reader 1)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 1.1.1	[Power on card reader 1]
4	ME → SIM2	RESET CARD	[Perform electrical initialization]
5	SIM2 → ME	ANSWER TO RESET 1.1.1	[ATR]
6	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.1.1	[ATR]

PROACTIVE COMMAND: POWER ON CARD 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER ON CARD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	31	00	82	02	81	11

ANSWER TO RESET 1.1.1

Logically:

TS (Initial character):	'3B'
T0 (Format character):	0F
T1 (Historical character):	'P'
T2 (Historical character):	'o'
T3 (Historical character):	'w'
T4 (Historical character):	'e'
T5 (Historical character):	'r'
T6 (Historical character):	'O'
T7 (Historical character):	'n'
T8 (Historical character):	'C'
T9 (Historical character):	'a'
T10 (Historical character):	'r'

T11 (Historical character):	'd'
T12 (Historical character):	'T'
T13 (Historical character):	'e'
T14 (Historical character):	's'
T15 (Historical character):	't'

Coding:

BER-TLV:	3B	0F	50	6F	77	65	72	4F	6E	43	61	72
	64	54	65	74	75							

TERMINAL RESPONSE: POWER ON CARD 1.1.1

Logically:

Command details
    Command number: 1
    Command type: POWER ON CARD
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card ATR
    TS (Initial character):   '3B'
    T0 (Format character):   0F
    T1 (Historical character):   'P'
    T2 (Historical character):   'o'
    T3 (Historical character):   'w'
    T4 (Historical character):   'e'
    T5 (Historical character):   'r'
    T6 (Historical character):   'O'
    T7 (Historical character):   'n'
    T8 (Historical character):   'C'
    T9 (Historical character):   'a'
    T10 (Historical character):   'r'
    T11 (Historical character):   'd'
    T12 (Historical character):   'T'
    T13 (Historical character):   'e'
    T14 (Historical character):   's'
    T15 (Historical character):   't'

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	01	00
	A1	11	3B	0F	50	6F	77	65	72	4F	6E	43
	61	72	64	54	65	74	75					

Expected Sequence 1.2 (POWER ON CARD, card reader 1, no ATR)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 1.1.1	[Power on card reader 1]
4	ME → SIM2	RESET CARD	[Perform electrical initialization]
5	SIM2 → ME	NO ATR	[No ATR]
6	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.2.1	[No ATR]

TERMINAL RESPONSE: POWER ON CARD 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: POWER ON CARD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: MultipleCard commands error
        Additional Information: Card mute

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	02	38
	06											

Expected Sequence 1.3 (POWER ON CARD, card reader 1, no card inserted)

Step	Direction	MESSAGE / Action	Comments
1	SIM2	SIM2 is removed from ME card reader	
2	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 1.1.1	[Power on card reader 1]
5	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.3.1	[Card removed or not present]

TERMINAL RESPONSE: POWER ON CARD 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: POWER ON CARD
        Command qualifier: "00"
    Device identities
        Source device: Card reader 0
        Destination device: SIM
    Result
        General Result: MultipleCard commands error

Additional Information: Card removed or not present

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	02	38
	02											

27.22.4.19.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.4.19.2   POWER ON CARD (detachable card reader)

27.22.4.19.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.19.2.2   Conformance requirement

27.22.4.19.2.3   Test purpose

To verify that the ME starts a session with the additional card identified in the POWER ON CARD proactive SIM command, and successfully returns the Answer To Reset within the TERMINAL RESPONSE command send to the SIM.

27.22.4.19.2.4   Method of test

27.22.4.19.2.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default with the following exceptions.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The card reader shall be detached from the ME.

27.22.4.19.2.4.2   Procedure

Expected Sequence 2.1 (POWER ON CARD, card reader 1, no card reader attached)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER ON CARD 2.1.1	[Power on card reader 1]
4	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 2.1.1	[Card reader removed or not present]

PROACTIVE COMMAND: POWER ON CARD 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER ON CARD
        Command qualifier: "00"
    Device identities

        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	31	00	82	02	81	11

TERMINAL RESPONSE: POWER ON CARD 1.1.1

Logically:

Command details
    Command number: 1
    Command type: POWER ON CARD
    Command qualifier: "00"
Device identities
    Source device: Card reader 0
    Destination device: SIM
Result
    General Result: MultipleCard commands error
    Additional Information: Card reader removed or not present

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	02	38
	01											

27.22.4.19.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.20 GET READER STATUS

27.22.4.20.1 GET READER STATUS (normal)

27.22.4.20.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.20.1.2 Conformance requirement

The ME shall support the Proactive SIM: Get Card Reader Status facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 5.2, clause 6.4.20, clause 6.6.20, clause 6.8, clause 12.6, clause 12.7, clause 12.33, clause 12.57 and annex H.

Additionally the ME shall support multiple card operation as defined in:

- 3GPP TS 11.14 [15] clause 6.4.19, clause 6.6.19, clause 6.4.18 and clause 6.6.18.

27.22.4.20.1.3 Test purpose

To verify that the ME sends starts a session with the additional card identified in the GET CARD READER STATUS proactive SIM command, and successfully returns information about all interfaces to additional card reader(s) in the TERMINAL RESPONSE command send to the SIM.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen.

In this test case the second SIM-Simulator (SIM2) shall response with the ATR "3B 00".

27.22.4.20.1.4   Method of test

27.22.4.20.1.4.1   Initial conditions

The ME shall support the Proactive SIM: Get Card Reader Status (Card Reader Status) facility. The ME is connected to the SIM Simulator.

The ME card reader is connected to the second SIM Simulator (SIM2). Instead of the second SIM Simulator a card with different parameters may be used as SIM2 to execute these tests. In this case the SIM Simulator shall take into account the corresponding response data.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

If the ME supports a detachable card reader, the card reader shall be attached to the ME.

Prior to this test the ME shall have powered on the second SIM Simulator (SIM2).

27.22.4.20.1.4.2   Procedure

Expected Sequence 1.1 (GET CARD READER STATUS, card reader 1, card inserted, card powered)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND PENDING: POWER ON CARD 1.1.1	[Power on card reader 1]
4	ME → SIM2	RESET CARD	[Perform electrical initialization]
5	SIM2 → ME	ANSWER TO RESET 1.1.1	[ATR]
6	ME → SIM	TERMINAL RESPONSE: POWER ON CARD 1.1.1	[ATR]
7	SIM → ME	PROACTIVE COMMAND PENDING: GET CARD READER STATUS 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: GET CARD READER STATUS 1.1.1	[Get Card Reader Status]
10	ME → SIM	TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1a Or	[Successful]
		TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1b or	[Successful]
		TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1c or	[Successful]
		TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1d	[Successful]

PROACTIVE COMMAND: POWER ON CARD 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: POWER ON CARD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	31	00	82	02	81	11

ANSWER TO RESET 1.1.1

Logically:

TS (Initial character):	'3B'
T0 (Format character):	'00'

Coding:

BER-TLV:	A1	02	3B	00

TERMINAL RESPONSE: POWER ON CARD 1.1.1

Logically:

Command details
    Command number: 1
    Command type: POWER ON CARD
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card ATR
    TS (Initial character):   '3B'
    T0 (Format character):   '00'

Coding:

BER-TLV:	81	03	01	31	00	82	02	82	81	83	01	00
	A1	02	3B	00								

PROACTIVE COMMAND: GET CARD READER STATUS 1.1.1

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: Card reader status
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	33	00	82	02	81	82

TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1a

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS

	Command qualifier:	Card reader status
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Card reader status		
	Identity of card reader:	'01'
	Card reader removable:	'No'
	Card reader present:	Yes
	Card reader ID-1 size:	'Yes'
	Card present in reader:	Yes
	Card powered:	Yes

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	F1							

TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1b

Logically:

Command details		
	Command number:	1
	Command type:	GET CARD READER STATUS
	Command qualifier:	Card reader status
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Card reader status		
	Identity of card reader:	'01'
	Card reader removable:	'No'
	Card reader present:	Yes
	Card reader ID-1 size:	'No'
	Card present in reader:	Yes
	Card powered:	Yes

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	D1							

TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1c

Logically:

Command details		
	Command number:	1
	Command type:	GET CARD READER STATUS
	Command qualifier:	Card reader status
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully
Card reader status		
	Identity of card reader:	'01'
	Card reader removable:	'Yes'

Card reader present: Yes
Card reader ID-1 size: 'Yes'
Card present in reader: Yes
Card powered: Yes

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	F9							

TERMINAL RESPONSE: GET CARD READER STATUS 1.1.1d

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: Card reader status
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card reader status
    Identity of card reader: '01'
    Card reader removable: 'Yes'
    Card reader present: Yes
    Card reader ID-1 size: 'No'
    Card present in reader: Yes
    Card powered: Yes

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	D9							

Expected Sequence 1.2 (GET CARD READER STATUS, card reader 1, card inserted, card not powered)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: POWER OFF CARD 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: POWER OFF CARD 1.2.1	[Power off card reader 1]
4	ME → SIM2	POWER OFF CARD	[Power off card reader 1]
5	ME → SIM	TERMINAL RESPONSE: POWER OFF CARD 1.2.1	[Successful]
6	SIM → ME	PROACTIVE COMMAND PENDING: GET CARD READER STATUS 1.1.1	
7	ME → SIM	FETCH	
8	SIM → ME	PROACTIVE COMMAND: GET CARD READER STATUS 1.1.1	[Get Card Reader Status]
9	ME → SIM	TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1a	[Successful]
		Or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1b	[Successful]
		or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1c	[Successful]
		Or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1d	[Successful]

PROACTIVE COMMAND: POWER OFF CARD 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Card reader 1

Coding:

BER-TLV:	D0	09	81	03	01	32	00	82	02	81	11

TERMINAL RESPONSE: POWER OFF CARD 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: POWER OFF CARD
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	32	00	82	02	82	81	83	01
	00										

TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1a

Logically:

    Command details
        Command number: 1
        Command type: GET CARD READER STATUS
        Command qualifier: Card reader status
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Card reader status
        Identity of card reader: '01'
        Card reader removable: 'No'
        Card reader present: Yes
        Card reader ID-1 size: 'Yes'
        Card present in reader: Yes
        Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	71							

TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1b

Logically:

    Command details
        Command number: 1
        Command type: GET CARD READER STATUS
        Command qualifier: Card reader status
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
        Card reader status
        Identity of card reader: '01'
        Card reader removable: 'No'
        Card reader present: Yes
        Card reader ID-1 size: 'No'
        Card present in reader: Yes
        Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	51							

TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1c

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: Card reader status
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card reader status
    Identity of card reader: '01'
    Card reader removable: 'Yes'
    Card reader present: Yes
    Card reader ID-1 size: 'Yes'
    Card present in reader: Yes
    Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	79							

TERMINAL RESPONSE: GET CARD READER STATUS 1.2.1d

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: Card reader status
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card reader status
    Identity of card reader: '01'
    Card reader removable: 'Yes'
    Card reader present: Yes
    Card reader ID-1 size: 'No'
    Card present in reader: Yes
    Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	59							

Expected Sequence 1.3 (GET CARD READER STATUS, card reader 1, card not present)

Step	Direction	MESSAGE / Action	Comments
1	SIM2	SIM2 is removed from ME card reader	
2	SIM → ME	PROACTIVE COMMAND PENDING: GET CARD READER STATUS 1.1.1	
3	ME → SIM	FETCH	
4	SIM → ME	PROACTIVE COMMAND: GET CARD READER STATUS 1.1.1	[Get Card Reader Status]
5	ME → SIM	TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1a	[Successful]
		or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1b	[Successful]
		or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1c	[Successful]
		or	
		TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1d	[Successful]

TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1a

Logically:

    Command details
        Command number: 1
        Command type: GET CARD READER STATUS
        Command qualifier: Card reader status
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Card reader status
        Identity of card reader: '1'
        Card reader removable: 'No'
        Card reader present: Yes
        Card reader ID-1 size: 'Yes'
        Card present in reader: No
        Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	31							

TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1b

Logically:

    Command details
        Command number: 1
        Command type: GET CARD READER STATUS
        Command qualifier: card reader status
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Card reader status
        Identity of card reader: '1'

Card reader removable: 'No'
Card reader present: Yes
Card reader ID-1 size: 'No'
Card present in reader: No
Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	11							

TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1c

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: card reader status
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card reader status
    Identity of card reader: '1'
    Card reader removable: 'Yes'
    Card reader present: Yes
    Card reader ID-1 size: 'Yes'
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	39							

TERMINAL RESPONSE: GET CARD READER STATUS 1.3.1d

Logically:

Command details
    Command number: 1
    Command type: GET CARD READER STATUS
    Command qualifier: Card reader status
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Card reader status
    Identity of card reader: '1'
    Card reader removable: 'Yes'
    Card reader present: Yes
    Card reader ID-1 size: 'No'
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	19							

27.22.4.20.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.4.20.2 GET CARD READER STATUS (detachable card reader)

27.22.4.20.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.20.2.2 Conformance requirement

Void.

27.22.4.20.2.3 Test purpose

To verify that the ME closes a session with the additional card identified in the GET CARD READER STATUS proactive SIM command, and successfully returns result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.20.2.4 Method of test

27.22.4.20.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

Prior to this test the ME shall have powered on the second SIM Simulator (SIM2).

The card reader shall be detached from the ME.

27.22.4.20.2.4.2 Procedure

Expected Sequence 2.1 (GET CARD READER STATUS, no card reader attached)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET CARD READER STATUS 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET CARD READER STATUS 2.1.1	[Get Card Reader Status]
4	ME → SIM	TERMINAL RESPONSE: GET CARD READER STATUS 2.1.1a or TERMINAL RESPONSE: GET CARD READER STATUS 2.1.1b	[Successful] [Successful]

PROACTIVE COMMAND: GET CARD READER STATUS 2.1.1

Logically:

    Command details
         Command number: 1

Command type:	GET CARD READER STATUS
Command qualifier:	Card Reader Status
Device identities	
Source device:	SIM
Destination device:	ME

Coding:

BER-TLV:	D0	09	81	03	01	33	00	82	02	81	82

TERMINAL RESPONSE: GET CARD READER STATUS 2.1.1a

Logically:

Command details	
Command number:	1
Command type:	GET CARD READER STATUS
Command qualifier:	Card reader status
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	No
Card reader ID-1 size:	Yes
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	29							

TERMINAL RESPONSE: GET CARD READER STATUS 2.1.1b

Logically:

Command details	
Command number:	1
Command type:	GET CARD READER STATUS
Command qualifier:	Card reader status
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	No
Card reader ID-1 size:	No
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	81	03	01	33	00	82	02	82	81	83	01
	00	A0	01	09							

27.22.4.20.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 2.1.

27.22.4.21 TIMER MANAGEMENT and ENVELOPE TIMER EXPIRATION

27.22.4.21.1 TIMER MANAGEMENT (normal)

27.22.4.21.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.21.1.2 Conformance Requirement

The ME shall support the TIMER MANAGEMENT as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.21, clause 6.8, clause 12.6, clause 12.7, clause 12.37 and clause 12.38.

27.22.4.21.1.3 Test purpose

To verify that the ME manages correctly its internal timers, start a timer, deactivate a timer or return the current value of a timer according to the Timer Identifier defined in the TIMER MANAGEMENT proactive SIM command.

27.22.4.21.1.4 Method of Test

27.22.4.21.1.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default with the following exceptions.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.4.21.1.4.2 Procedure

Expected Sequence 1.1 (TIMER MANAGEMENT, start timer 1 several times, get the current value of the timer and deactivate the timer successfully)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.1.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.1	[start timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.1	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.1.2	After 1 minute following reception of Terminal Response
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.2	[ask value of timer 1]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.2	[command performed successfully]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.1.3	Before timer expires!
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.3	[reinitialize timer 1]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.3	[command performed successfully]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.1.4	After 30 s following reception of the Terminal Response
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.4	[deactivate timer 1]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.4	[command performed successfully]

PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 1
    Timer value
        Value of timer: 5 min

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	01	A5	03	00	50	00					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.2

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     get the current value of the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   1
```

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	01										

PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.3

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     start the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   1
Timer value
        Value of timer:        1min 30s
```

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	01	A5	03	00	10	03					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.1.4

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     deactivate the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   1
```

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	01										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.1 and 1.1.3

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 1

Coding::

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	01									

TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.2

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get the current value of the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 1
Timer value
    Value of timer: value < to the timer value of command 1.1.1

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	00
	A4	01	01	A5	03	xx	xx	xx				

TERMINAL RESPONSE: TIMER MANAGEMENT 1.1.4

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 1
Timer value
    Value of timer: value < to the timer value of command 1.1.3

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	00
	A4	01	01	A5	03	xx	xx	xx				

Expected Sequence 1.2 (TIMER MANAGEMENT, start timer 2 several times, get the current value of the timer and deactivate the timer successfully)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.2.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.1	[start timer 2]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.1	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.2.2	After 1 minute following reception of Terminal Response
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.2	[ask value of timer 2]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.2	[command performed successfully]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.2.3	Before timer expires!
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.3	[reinitialize timer 2]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.3	[command performed successfully]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.2.4	After 10 seconds following reception of Terminal Response
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.4	[deactivate timer 2]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.4	[command performed successfully]

PROACTIVE COMMAND:TIMER MANAGEMENT 1.2.1

Logically:

```
Command details
    Command number:        1
    Command type:          TIMER MANAGEMENT
    Command qualifier:     start the Timer
Device identities
    Source device:         SIM
    Destination device:    ME
Timer identifier
    Identifier of timer:   2
Timer value
    Value of timer:        23 h 59 min 59 s
```

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	02	A5	03	32	95	95					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.2

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     get the current value of the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   2
```

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	02										

PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.3

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     start the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   2
Timer value
        Value of timer:        40 s
```

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	02	A5	03	00	00	04					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.2.4

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     deactivate the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   2
```

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	02										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.1 and 1.2.3

Logically:

> Command details
>> Command number: 1
>> Command type: TIMER MANAGEMENT
>> Command qualifier: start the Timer
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Timer identifier
>> Identifier of timer: 2

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	02									

TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.2

Logically:

> Command details
>> Command number: 1
>> Command type: TIMER MANAGEMENT
>> Command qualifier: get the current value of the Timer
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Timer identifier
>> Identifier of timer: 2
> Timer value
>> Value of timer: value < to the timer value of command 1.2.1

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	00
	A4	01	02	A5	03	xx	xx	xx				

TERMINAL RESPONSE: TIMER MANAGEMENT 1.2.4

Logically:

> Command details
>> Command number: 1
>> Command type: TIMER MANAGEMENT
>> Command qualifier: deactivate the Timer
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Timer identifier
>> Identifier of timer: 2
> Timer value
>> Value of timer: value < to the timer value of command 1.2.3

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	00
	A4	01	02	A5	03	xx	xx	xx				

Expected Sequence 1.3 (TIMER MANAGEMENT, start timer 8 several times, get the current value of the timer and deactivate the timer successfully)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.3.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.1	[start timer 8]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.1	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.3.2	After 1 minute following reception of Terminal Response
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.2	[ask value of timer 8]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.2	[command performed successfully]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.3.3	Before timer expires!
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.3	[reinitialize timer 8]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.3	[command performed successfully]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.3.4	After 30 seconds following reception of Terminal Response
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.4	[deactivate timer 8]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.4	[command performed successfully]

PROACTIVE COMMAND:TIMER MANAGEMENT 1.3.1

Logically:

```
Command details
    Command number:        1
    Command type:          TIMER MANAGEMENT
    Command qualifier:     start the Timer
Device identities
    Source device:         SIM
    Destination device:    ME
Timer identifier
    Identifier of timer:   8
Timer value
    Value of timer:        20min
```

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	08	A5	03	00	02	00					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.2

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get the current value of the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 8

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	08										

PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.3

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 8
Timer value
    Value of timer: 01 h 00 min 00 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	08	A5	03	10	00	00					

PROACTIVE COMMAND: TIMER MANAGEMENT 1.3.4

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 8

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	08										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.1 and 1.3.3

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 8

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	08									

TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.2

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: get the current value of the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 8
    Timer value
        Value of timer: value < to the timer value of command 1.3.1

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	00
	A4	01	08	A5	03	xx	xx	xx				

TERMINAL RESPONSE: TIMER MANAGEMENT 1.3.4

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: deactivate the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 8
    Timer value
        Value of timer: value < to the timer value of command 1.3.3

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	00
	A4	01	08	A5	03	xx	xx	xx				

Expected Sequence1.4 (TIMER MANAGEMENT, try to get the current value of a timer which is not started: action in contradiction with the current timer state)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.1	[get current value from timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.1	[action in contradiction with the current timer state]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.2	
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.2	[get current value from timer 2]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.2	[action in contradiction with the current timer state]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.3	
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.3	[get current value from timer 3]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.3	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.4	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.4	[get current value from timer 4]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.4	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.5	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.5	[get current value from timer 5]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.5	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.6	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.6	[get current value from timer 6]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.6	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.7	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.7	[get current value from timer 7]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.7	[action in contradiction with the current timer state]

Step	Direction	MESSAGE / Action	Comments
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.4.8	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.8	[get current value from timer 8]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.8	[action in contradiction with the current timer state]

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: get the current value of the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 1

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	01										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: get current value from the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Action in contradiction with the current timer state
    Timer identifier
        Identifier of timer: 1

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	01									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.2

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: get the current value of the Timer
    Device identities
        Source device: SIM
        Destination device: ME

Timer identifier
  Identifier of timer: 2

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	02										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.2

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: get current value from the Timer
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Action in contradiction with the current timer state
Timer identifier
  Identifier of timer: 2

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	02									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.3

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: get the current value of the Timer
Device identities
  Source device: SIM
  Destination device: ME
Timer identifier
  Identifier of timer: 3

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	03										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.3

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: get current value from the Timer
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Action in contradiction with the current timer state

Timer identifier
    Identifier of timer: 3

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	03									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.4

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get the current value of the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 4

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	04										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.4

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get current value from the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 4

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	04									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.5

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get the current value of the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 5

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	05										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.5

Logically:

```
Command details
    Command number:        1
    Command type:          TIMER MANAGEMENT
    Command qualifier:     get current value from the Timer
Device identities
    Source device:         ME
    Destination device:    SIM
Result
    General Result:        Action in contradiction with the current timer state
Timer identifier
    Identifier of timer:   5
```

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	05									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.6

Logically:

```
Command details
    Command number:        1
    Command type:          TIMER MANAGEMENT
    Command qualifier:     get the current value of the Timer
Device identities
    Source device:         SIM
    Destination device:    ME
Timer identifier
    Identifier of timer:   6
```

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	06										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.6

Logically:

```
Command details
    Command number:        1
    Command type:          TIMER MANAGEMENT
    Command qualifier:     get current value from the Timer
Device identities
    Source device:         ME
    Destination device:    SIM
Result
    General Result:        Action in contradiction with the current timer state
Timer identifier
    Identifier of timer:   6
```

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	06									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.7

Logically:

        Command details
                Command number: 1
                Command type: TIMER MANAGEMENT
                Command qualifier: get the current value of the Timer
        Device identities
                Source device: SIM
                Destination device: ME
        Timer identifier
                Identifier of timer: 7

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	07										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.7

Logically:

        Command details
                Command number: 1
                Command type: TIMER MANAGEMENT
                Command qualifier: get current value from the Timer
        Device identities
                Source device: ME
                Destination device: SIM
        Result
                General Result: Action in contradiction with the current timer state
        Timer identifier
                Identifier of timer: 7

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	07									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.4.8

Logically:

        Command details
                Command number: 1
                Command type: TIMER MANAGEMENT
                Command qualifier: get the current value of the Timer
        Device identities
                Source device: SIM
                Destination device: ME
        Timer identifier
                Identifier of timer: 8

Coding:

BER-TLV:	D0	0C	81	03	01	27	02	82	02	81	82	A4
	01	08										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.4.8

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: get current value from the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 8

Coding:

BER-TLV:	81	03	01	27	02	82	02	82	81	83	01	24
	A4	01	08									

Expected Sequence1.5 (TIMER MANAGEMENT, try to deactivate a timer which is not started: action in contradiction with the current timer state)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.1	[deactivate timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.1	[action in contradiction with the current timer state]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.2	
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.2	[deactivate timer 2]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.2	[action in contradiction with the current timer state]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.3	
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.3	[deactivate timer 3]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.3	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.4	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.4	[deactivate timer 4]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.4	[action in contradiction with the current timer state]

Step	Direction	MESSAGE / Action	Comments
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.5	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.5	[deactivate timer 5]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.5	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.6	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.6	[deactivate timer 6]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.6	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.7	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.7	[deactivate timer 7]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.7	[action in contradiction with the current timer state]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.5.8	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.8	[deactivate timer 8]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.8	[action in contradiction with the current timer state]

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.1

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 1

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	01										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.1

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 1

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
A4	01	01										

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.2

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 2

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
01	02											

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.2

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 2

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
A4	01	02										

PROACTIVE COMMAND3: TIMER MANAGEMENT 1.5.3

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer

Device identities
  Source device: SIM
  Destination device: ME
Timer identifier
  Identifier of timer: 3

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	03										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.3

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: Deactivate Timer
Device identities
  Source device: ME
  Destination device: SIM
Result
  General Result: Action in contradiction with the current timer state
Timer identifier
  Identifier of timer: 3

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	03									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.4

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: deactivate the Timer
Device identities
  Source device: SIM
  Destination device: ME
Timer identifier
  Identifier of timer: 4

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	04										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.4

Logically:

Command details
  Command number: 1
  Command type: TIMER MANAGEMENT
  Command qualifier: Deactivate Timer

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 4

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	04									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.5

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 5

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	05										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.5

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 5

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	05									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.6

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer

Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 6

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	06										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.6

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 6

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	06									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.7

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 7

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	07										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.7

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 7

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	07									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.5.8

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: deactivate the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 8

Coding:

BER-TLV:	D0	0C	81	03	01	27	01	82	02	81	82	A4
	01	08										

TERMINAL RESPONSE: TIMER MANAGEMENT 1.5.8

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: Deactivate Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Action in contradiction with the current timer state
Timer identifier
    Identifier of timer: 8

Coding:

BER-TLV:	81	03	01	27	01	82	02	82	81	83	01	24
	A4	01	08									

Expected Sequence 1.6 (TIMER MANAGEMENT, start 8 timers successfully)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.1	[timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.1	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.2	
6	ME → SIM	FETCH	
7		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.2	[timer 2]
8	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.2	[command performed successfully]
9	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.3	
10	ME → SIM	FETCH	
11		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.3	[timer 3]
12	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.3	[command performed successfully]
13	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.4	
14	ME → SIM	FETCH	
15		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.4	[timer 4]
16	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.4	[command performed successfully]
17	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.5	
18	ME → SIM	FETCH	
19		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.5	[timer 5]
20	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.5	[command performed successfully]
21	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.6	
22	ME → SIM	FETCH	
23		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.6	[timer 6]
24	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.6	[command performed successfully]
25	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.7	
26	ME → SIM	FETCH	
27		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.6	[timer 7]
28	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.7	[command performed successfully]
29	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 1.6.8	
30	ME → SIM	FETCH	
31		PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.8	[timer 8]
32	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.8	[command performed successfully]

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 1
    Timer value
        Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	01	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 1

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	01									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.2

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 2
    Timer value
        Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	02	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.2

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 2

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	02									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.3

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 3
    Timer value
        Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	03	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.3

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Timer identifier
Identifier of timer: 3

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	03									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.4

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 4
    Timer value
        Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	04	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.4

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 4

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	04									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.5

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME

Timer identifier
    Identifier of timer: 5
Timer value
    Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	05	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.5

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 5

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	05									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.6

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 6
Timer value
    Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	06	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.6

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 6

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	06									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.7

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: SIM
    Destination device: ME
Timer identifier
    Identifier of timer: 7
Timer value
    Value of timer: 5 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	07	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.7

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 7

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	07									

PROACTIVE COMMAND: TIMER MANAGEMENT 1.6.8

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     start the Timer
Device identities
        Source device:         SIM
        Destination device:    ME
Timer identifier
        Identifier of timer:   8
Timer value
        Value of timer:        5 s
```

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	08	A5	03	00	00	50					

TERMINAL RESPONSE: TIMER MANAGEMENT 1.6.8

Logically:

```
Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     start the Timer
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        Command performed successfully
Timer identifier
        Identifier of timer:   8
```

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	08									

27.22.4.21.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.4.21.2   ENVELOPE TIMER EXPIRATION (normal)

27.22.4.21.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.21.2.2   Conformance requirement

The ME shall support the ENVELOPE (TIMER EXPIRATION) command as defined in the following technical specifications:

- 3GPP TS 11.14 clause 4.10, clause 10.1 and clause 10.2.

The ME shall support the TIMER MANAGEMENT as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.21, clause 6.8, clause 12.6, clause 12.7, clause 12.37 and clause 12.38.

27.22.4.21.2.3 Test purpose

To verify that the ME shall pass the identifier of the timer that has expired and its value using the ENVELOPE (TIMER EXPIRATION) command, when a timer previously started in a TIMER MANAGEMENT proactive command expires.

27.22.4.21.2.4 Method of test

27.22.4.21.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default with the following exceptions.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The timer 1 is not started.

When the SIM is busy when the envelope TIMER EXPIRATION is sent, either the ME retries periodically to send the envelope, either it waits for a TERMINAL RESPONSE processed by the SIM with status '90 00'.

If the ME waits for a TR with status '90 00', the ME manufacturer shall specify how many TERMINAL RESPONSES with status '90 00' are expected before sending the TIMER EXPIRATION envelope.

27.22.4.21.2.4.2 Procedure

Expected Sequence 2.1 (TIMER EXPIRATION, pending proactive SIM command)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 2.1.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 2.1.1	[timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 2.1.1	[command performed successfully]
5	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.1.1	
6	SIM → ME	PROACTIVE COMMAND PENDING: MORE TIME X.1(or an other SAT command tested before to ensure it is properly supported by the mobile).	[response to envelope is "91 xx"]
7	ME → SIM	FETCH	

PROACTIVE COMMAND: TIMER MANAGEMENT 2.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          TIMER MANAGEMENT
        Command qualifier:     start the Timer
    Device identities
        Source device:         SIM
        Destination device:    ME
    Timer identifier
        Identifier of timer:   1
```

Timer value
    Value of timer: 0 h 0 min 10 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	01	A5	03	00	00	01					

TERMINAL RESPONSE: TIMER MANAGEMENT 2.1.1

Logically:

Command details
    Command number: 1
    Command type: TIMER MANAGEMENT
    Command qualifier: start the Timer
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Timer identifier
    Identifier of timer: 1

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	01									

ENVELOPE: TIMER EXPIRATION 2.1.1

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Timer identifier
    Timer 1
Timer value
    Hour: '00'
    Minute: '00'
    Second: '10' $\pm$ 1 s

Coding:

BER-TLV:	D7	0C	82	02	82	81	A4	01	01	A5	03	00
	00	xx										

Expected Sequence 2.2A (TIMER EXPIRATION, SIM application toolkit busy)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 2.2.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 2.2.1	[timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 2.2.1	[command performed successfully]
5	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.2.1A	
6	SIM → ME	PROACTIVE SIM SESSION BUSY	[SIM is busy; response to the envelope = "93 00"]
...			[SIM is busy during 10 seconds, the ME retries the sending of the envelope until it is accepted]
7	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.2.1B	
8	SIM → ME	PROACTIVE SIM SESSION BUSY	[SIM is busy, response to the envelope = "93 00"]
9	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.2.1C	
10	SIM → ME	PROACTIVE SIM SESSION ENDED	[SIM is not busy]

Or:

Expected Sequence 2.2B (TIMER EXPIRATION, SIM application toolkit busy)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: TIMER MANAGEMENT 2.2.1	
2	ME → SIM	FETCH	
3		PROACTIVE COMMAND: TIMER MANAGEMENT 2.2.1	[timer 1]
4	ME → SIM	TERMINAL RESPONSE: TIMER MANAGEMENT 2.2.1	[command performed successfully]
5	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.2.1A	
6	SIM → ME	RESPONSE TO THE ENVELOPE	[SIM is busy; response to the envelope = "93 00"] [SIM is busy during 10 sec, the ME may retry to send the envelope. After one (or several) answer(s) 93 00, the ME waits for a TERMINAL RESPONSE processed by the SIM with status "90 00"]
7	ME → SIM	STATUS	[SIM is not busy]
8	SIM → ME	Response to the STATUS command	[SW1/SW2=91 xx]
9	ME → SIM	PROACTIVE COMMAND PENDING	
10	SIM → ME	FETCH	
		PROACTIVE COMMAND: e.g. MORE TIME 2.2.2	
11	ME → SIM	TERMINAL RESPONSE: e.g. TIMER MANAGEMENT 2.2.2	[command performed successfully]
12	SIM → ME		[SW1/SW2 = 90 00] Steps 7→12 shall be repeated (X-1) times if the ME manufacturers specifies that the ME waits for X TERMINAL RESPONSES with status 90 00 to send the TIMER EXPIRATION envelope.
13	ME → SIM	ENVELOPE: TIMER EXPIRATION 2.2.1B	
14		PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: TIMER MANAGEMENT 2.2.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: SIM
        Destination device: ME
    Timer identifier
        Identifier of timer: 1
    Timer value
        Value of timer: 0 h 0 min 30 s

Coding:

BER-TLV:	D0	11	81	03	01	27	00	82	02	81	82	A4
	01	01	A5	03	00	00	03					

TERMINAL RESPONSE: TIMER MANAGEMENT 2.2.1

Logically:

    Command details
        Command number: 1
        Command type: TIMER MANAGEMENT
        Command qualifier: start the Timer
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Timer identifier
        Identifier of timer: 1

Coding:

BER-TLV:	81	03	01	27	00	82	02	82	81	83	01	00
	A4	01	01									

ENVELOPE: TIMER EXPIRATION 2.2.1A

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Timer identifier
        Timer 1
    Timer value
        Hour: '00'
        Minute: '00'
        Second: '30' ± 1 s

Coding:

BER-TLV:	D7	0C	82	02	82	81	A4	01	01	A5	03	00
	00	xx										

ENVELOPE: TIMER EXPIRATION 2.2.1B

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Timer identifier
        Timer 1
    Timer value
        Hour: '00'
        Minute: '00'
        Second: ≥ timer in clause 2.2.1A

Coding:

BER-TLV:	D7	0C	82	02	82	81	A4	01	01	A5	03	00
	00	xx										

ENVELOPE: TIMER EXPIRATION 2.2.1C

Logically:

Device identities		
	Source device:	ME
	Destination device:	SIM
Timer identifier		
	Timer 1	
Timer value		
	Hour:	'00'
	Minute:	'00'
	Second:	≥ timer in 2.2.1B

Coding:

BER-TLV:	D7	0C	82	02	82	81	A4	01	01	A5	03	00
	00	xx										

PROACTIVE COMMAND: MORE TIME 2.2.2

Logically:

Command details		
	Command number:	1
	Command type:	MORE TIME
	Command qualifier:	"00"
Device identities		
	Source device:	SIM
	Destination device:	ME

Coding:

BER-TLV:	D0	09	81	03	01	02	00	82	02	81	82

TERMINAL RESPONSE: MORE TIME 2.2.2

Logically:

Command details		
	Command number:	1
	Command type:	MORE TIME
	Command qualifier:	"00"
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	02	00	82	02	82	81	83	01	00

27.22.4.21.2.5   Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.2B.

27.22.4.22 SET UP IDLE MODE TEXT

27.22.4.22.1 SET UP IDLE MODE TEXT (normal)

27.22.4.22.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.22.1.2 Conformance requirement

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.22, clause 6.6.22, clause 6.4.16, clause 6.6.16, clause 11.6, clause 6.8, clause 11, clause 11.1, clause 12.25, clause 6.4.7 and clause 6.6.13.

Additionally the ME shall support the REFRESH proactive SIM facility as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.1, clause 6.4.7, clause 6.6.13, clause 6.11, clause 12.6, clause 12.12, clause 13.4 and clause 14.

27.22.4.22.1.3 Test purpose

To verify that the text passed to the ME is displayed as idle mode text.

27.22.4.22.1.4 Method of test

27.22.4.22.1.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.22.1.4.2 Procedure

Expected Sequence 1.1 (SET UP IDLE MODE TEXT, display idle mode text)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	[Idle Mode Text]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.1	[Command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display "Idle Mode Text"	

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.1

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP IDLE MODE TEXT
        Command qualifier:     RFU
Device identities
        Source device:         SIM
        Destination device:    ME
```

Text String
        Data coding scheme: unpacked, 8 bit data
        Text: "Idle Mode Text"

Coding:

BER-TLV:	D0	1A	81	03	01	28	00	82	02	81	82	8D
	0F	04	49	64	6C	65	20	4D	6F	64	65	20
	54	65	78	74								

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.1

Logically:

        Command details
                Command number: 1
                Command type: SET UP IDLE MODE TEXT
                Command qualifier: RFU
        Device identities
                Source device: ME
                Destination device: SIM
        Result
                General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (SET UP IDLE MODE TEXT, replace idle mode text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.1	[Idle Mode Text]
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.1	
5	USER → ME	Select idle screen	Only if idle screen not already available
6	ME → USER	Display "Idle Mode Text"	
7	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.2.1	[Idle Mode Text]
8	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.2.1	
9	SIM → ME	PROACTIVE SIM SESSION ENDED	
10	USER → ME	Select idle screen	Only if idle screen not already available
11	ME → USER	Display "Toolkit Test"	

PROACTIVE COMMAND: SETUP IDLE MODE TEXT 1.2.1

Logically:

        Command details
                Command number: 1
                Command type: SETUP IDLE MODE TEXT
                Command qualifier: RFU
        Device identities
                Source device: SIM

Destination device: Display
Text String
Data coding scheme: unpacked, 8 bit data
Text: "Toolkit Test"

Coding:

BER-TLV:	D0	18	81	03	01	28	00	82	02	81	82	8D
	0D	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74										

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.2.1

Logically:

Command details
Command number: 1
Command type: SET UP IDLE MODE TEXT
Command qualifier: RFU
Device identities
Source device: ME
Destination device: SIM
Result
General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 1.3 (SET UP IDLE MODE TEXT, remove idle mode text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.1	["Idle Mode Text"]
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.1	
5	USER → ME	Select idle screen	Only if idle screen not already available
6	ME → USER	Display "Idle Mode Text"	
7	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.3.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.3.1	[Remove idle mode text]
10	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.3.1	
11	SIM → ME	PROACTIVE SIM SESSION ENDED	
12	USER → ME	Select idle screen	Only if idle screen not already available
13	ME → USER	Display idle screen / "Idle Mode Text" not to be displayed	

PROACTIVE COMMAND: SETUP IDLE MODE TEXT 1.3.1

Logically:

Command details
Command number: 1
Command type: SETUP IDLE MODE TEXT
Command qualifier: RFU

Device identities
    Source device: SIM
    Destination device: ME
    Text String: zero length TLV

Coding:

BER-TLV:	D0	0B	81	03	01	28	00	82	02	81	82	8D
	00											

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.3.1

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 1.4 (SET UP IDLE MODE TEXT, competing information on ME display)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.2	["Idle Mode Text"]
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.12	[Command performed successfully]
5	USER → ME	Select idle screen	Only if idle screen not already available
6	ME → USER	Display "Idle Mode Text"	
7	SS → ME	SMS PP 1.4.1	[Display immediate SMS]
8	ME → USER	Display "Short Message"	
9	USER → ME	Clear display and select idle screen	
10	ME → USER	Display "Idle Mode Text"	
11	SIM → ME	PROACTIVE COMMAND PENDING: DISPLAY TEXT 1.4.1	
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND: DISPLAY TEXT 1.4.1	[Normal priority, wait for user to clear message, unpacked, 8 bit data]
14	ME → USER	Display "Toolkit Test 1"	
15	USER → ME	Clear Message	
16	ME → SIM	TERMINAL RESPONSE: DISPLAY TEXT 1.4.1	[Command performed successfully]
17	ME → USER	Display "Idle Mode Text"	
18	SIM → ME	PROACTIVE COMMAND PENDING: PLAY TONE 1.4.1	
19	ME → SIM	FETCH	
20	SIM → ME	PROACTIVE COMMAND: PLAY TONE 1.4.1	
21	ME → USER	Display "Dial Tone" Play a standard supervisory dial tone through the external ringer for a duration of 5 s	
22	ME → SIM	TERMINAL RESPONSE: PLAY TONE 1.4.1	[Command performed successfully]
23	SIM → ME	PROACTIVE SIM SESSION ENDED	
24	ME → USER	Display "Idle Mode Text"	

SMS-PP 1.4.1

Logically:

```
SMS TPDU
    TP-MTI              SMS-SUBMIT
    TP-RD               Instruct the SC to accept an SMS-SUBMIT for a SM
    TP-VPF              TP-VP field not present
    TP-RP               TP-Reply-Path is not set in this SMS-SUBMIT
    TP-UDHI             The TP-UD field contains only the short message
    TP-SRR              A status report is not requested
    TP-MR               "00"
    TP-DA
        TON             International number
        NPI             "ISDN / telephone numbering plan"
        Address value   "012345678"
    TP-PID              Short message type 0
    TP-DCS
        Message coding  8-bit data
        Message class   class 0
```

TP-UDL	12	
TP-UD	"Test Message"	

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

PROACTIVE COMMAND: DISPLAY TEXT 1.4.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: SIM
    Destination device: Display
Text String
    Data coding scheme: unpacked, 8 bit data
    Text: "Toolkit Test 1"

Coding:

BER-TLV:	D0	1A	81	03	01	21	80	82	02	81	02	8D
	0F	04	54	6F	6F	6C	6B	69	74	20	54	65
	73	74	20	31								

TERMINAL RESPONSE: DISPLAY TEXT 1.4.1

Logically:

Command details
    Command number: 1
    Command type: DISPLAY TEXT
    Command qualifier: normal priority, wait for user to clear message
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	21	80	82	02	82	81	83	01	00

PROACTIVE COMMAND: PLAY TONE 1.4.1

Logically:

Command details
    Command number: 1
    Command type: PLAY TONE
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Earpiece
    Alpha identifier: "Dial Tone"
    TONe: Standard supervisory tones: dial tone
Duration

Time unit: Seconds
Time interval: 5

Coding:

BER-TLV:	D0	1B	81	03	01	20	00	82	02	81	03	85
	09	44	69	61	6C	20	54	6F	6E	65	8E	01
	01	84	02	01	05							

TERMINAL RESPONSE: PLAY TONE 1.4.1

Logically:

Command details
    Command number: 1
    Command type: PLAY TONE
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	20	00	82	02	82	81	83	01	00

Expected Sequence 1.5 (SET UP IDLE MODE TEXT, ME power cycled)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.1	["Idle Mode Text"]
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.1	[command performed successfully]
5	USER → ME	Select idle screen	Only if idle screen not already available
6	ME → USER	Display "Idle Mode Text"	
7	USER → ME	Power off ME	
8	ME ⇔ SIM	GSM TERMINATION PROCEDURE	
9	USER → ME	Power on ME	
10	ME ⇔ SIM	GSM ACTIVATION PROCEDURE	
11	ME ⇔ SIM	SIM INITIALIZATION	
12	USER → ME	Select idle screen	Only if idle screen not already available
13	ME → USER	Display idle screen / "Idle Mode Text" not to be displayed	

Expected Sequence 1.6 (SET UP IDLE MODE TEXT, REFRESH with SIM Initialization)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.1.1	[Idle Mode Text]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.1.2	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.1.2	
5	USER → ME	Select idle screen	Only if idle screen not already available
6	ME → USER	Display "Idle Mode Text"	
7	SIM → ME	PROACTIVE COMMAND PENDING: REFRESH 1.6.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: REFRESH 1.6.1	[SIM Initialization]
10	ME ⇔ SIM	SIM INITIALIZATION	
11	USER → ME	Select idle screen	Only if idle screen not already available
12	ME → USER	Display idle screen / "Idle Mode Text" not to be displayed	
13	ME → SIM	TERMINAL RESPONSE: REFRESH 1.6.1A or	[Command performed successfully]
		TERMINAL RESPONSE: REFRESH 1.6.1B	[Command performed successfully with additional files read]
14	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: REFRESH 1.6.1

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: SIM Initialization
    Device identities
        Source device: SIM
        Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	01	03	82	02	81	82

TERMINAL RESPONSE: REFRESH 1.6.1A

Logically:

    Command details
        Command number: 1
        Command type: REFRESH
        Command qualifier: SIM Initialization
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	01	03	82	02	82	81	83	01	00

TERMINAL RESPONSE: REFRESH 1.6.1B

Logically:

Command details
    Command number: 1
    Command type: REFRESH
    Command qualifier: SIM Initialization
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: REFRESH performed with additional EFs read

Coding:

BER-TLV:	81	03	01	01	03	82	02	82	81	83	01	03

Expected Sequence 1.7 (SET UP IDLE MODE TEXT, large text string)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 1.7.1	[large text string]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.7.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.7.1	[command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display "The SIM shall supply a text string, which shall be displayed by the ME as an idle mode text if the ME is able to do it. The presentation style is left as an implementation decision to the ME manufacturer. The idle mode text shall be displayed in a manner that ensures that ne"	[274 characters]

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 1.7.1

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: ME
Text String
    Data coding scheme: packed, SMS default alphabet

Text: "The SIM shall supply a text string, which shall be displayed by the ME as an idle mode text if the ME is able to do it. The presentation style is left as an implementation decision to the ME manufacturer. The idle mode text shall be displayed in a manner that ensures that ne"

Coding:

BER-TLV:	D0	81	FD	81	03	01	28	00	82	02	81	82
	8D	81	F1	00	54	74	19	34	4D	36	41	73
	74	98	CD	06	CD	EB	70	38	3B	0F	0A	83
	E8	65	3C	1D	34	A7	CB	D3	EE	33	0B	74
	47	A7	C7	68	D0	1C	1D	66	B3	41	E2	32
	88	9C	9E	C3	D9	E1	7C	99	0C	12	E7	41
	74	74	19	D4	2C	82	C2	73	50	D8	0D	4A
	93	D9	65	50	FB	4D	2E	83	E8	65	3C	1D
	94	36	83	E8	E8	32	A8	59	04	A5	E7	A0
	B0	98	5D	06	D1	DF	20	F2	1B	94	A6	BB
	A8	E8	32	08	2E	2F	CF	CB	6E	7A	98	9E
	7E	BB	41	73	7A	9E	5D	06	A5	E7	20	76
	D9	4C	07	85	E7	A0	B0	1B	94	6E	C3	D9
	E5	76	D9	4D	0F	D3	D3	6F	37	88	5C	1E
	A7	E7	E9	B7	1B	44	7F	83	E8	E8	32	A8
	59	04	B5	C3	EE	BA	39	3C	A6	D7	E5	65
	B9	0B	44	45	97	41	69	32	BB	0C	6A	BF
	C9	65	10	BD	8C	A7	83	E6	E8	30	9B	0D
	12	97	41	E4	F4	1C	CE	0E	E7	CB	64	50
	DA	0D	0A	83	DA	61	B7	BB	2C	07	D1	D1
	61	3A	A8	EC	9E	D7	E5	E5	39	88	8E	0E
	D3	41	EE	32								

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 1.7.1

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command q ualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

27.22.4.22.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.7.

27.22.4.22.2   SET UP IDLE MODE TEXT (Icon support)

27.22.4.22.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.22.2.2   Conformance requirement

27.22.4.22.2.3   Test purpose

To verify that the ME text and / or icon passed to the ME is displayed by the ME as an idle mode text.

To verify that the icon identifier provided with the text string can replace the text string or accompany it.

To verify that if both an alpha identifier or text string, and an icon are provided with a proactive command, and both are requested to be displayed, but the ME is not able to display both together on the screen, then the alpha identifier or text string takes precedence over the icon.

To verify that if the SIM provides an icon identifier with a proactive command, then the ME shall inform the SIM if the icon could not be displayed by sending the general result "Command performed successfully, but requested icon could not be displayed".

To verify that if the ME receives an icon qualifier with bit 1 set to 0, meaning "an alpha identifier or text string related to the icon may be displayed together with the icon by the ME", and no alpha identifier / text string is given by the SIM, than the ME shall reject the command with general result "Command data not understood by ME".

27.22.4.22.2.4   Method of test

27.22.4.22.2.4.1   Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.22.2.4.2   Procedure

Expected Sequence 2.1A (SET UP IDLE MODE TEXT, Icon is self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.1.1	[Icon is self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.1.1A	[command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display the icon	

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP IDLE MODE TEXT
        Command qualifier: RFU
    Device identities
        Source device: SIM
        Destination device: ME

Text String: "Idle text"
Icon identifier
    Icon qualifier: icon is self-explanatory
    Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	19	81	03	01	28	00	82	02	81	82	8D
	0A	04	49	64	6C	65	20	74	65	78	74	9E
	02	00	01									

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.1.1A

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 2.1B (SET UP IDLE MODE TEXT, Icon is self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.1.1	[Icon is self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.1.1B	[Command performed successfully, but requested icon could not be displayed]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display "Idle text" without the icon	

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.1.1B

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	04

Expected Sequence 2.2A (SET UP IDLE MODE TEXT, Icon is not self-explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.2.1	[Icon is not self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.2.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.2.1A	[command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display icon #1 and "Idle text"	

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.2.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP IDLE MODE TEXT
        Command qualifier: RFU
    Device identities
        Source device: SIM
        Destination device: ME
        Text String: "Idle text"
    Icon identifier
        Icon qualifier: icon is not self-explanatory
        Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	19	81	03	01	28	00	82	02	81	82	8D
	0A	04	49	64	6C	65	20	74	65	78	74	9E
	02	01	01									

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.2.1A

Logically:

    Command details
        Command number: 1
        Command type: SET UP IDLE MODE TEXT
        Command qualifier: RFU
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 2.2B (SET UP IDLE MODE TEXT, Icon is not self-explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.2.1	[Icon is not self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.2.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.2.1B	[Command performed successfully, but requested icon could not be displayed]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display "Idle text" without the icon	

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.2.1B

Logically:

> Command details
> > Command number: 1
> > Command type: SET UP IDLE MODE TEXT
> > Command qualifier: RFU
> Device identities
> > Source device: ME
> > Destination device: SIM
> Result
> > General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	04

Expected Sequence 2.3A (SET UP IDLE MODE TEXT, Icon is self-explanatory, colour icon, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.3.1	[Icon is self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.3.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.3.1A	[command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display the icon	

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.3.1

Logically:

> Command details
> > Command number: 1

Command type:	SET UP IDLE MODE TEXT
Command qualifier:	RFU
Device identities	
Source device:	SIM
Destination device:	ME
Text String:	"Idle text"
Icon identifier	
Icon qualifier:	icon is self-explanatory
Icon identifier:	<record 2 in EF IMG>

Coding:

BER-TLV:	D0	19	81	03	01	28	00	82	02	81	82	8D
	0A	04	49	64	6C	65	20	74	65	78	74	9E
	02	00	02									

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.3.1A

Logically:

Command details	
Command number:	1
Command type:	SET UP IDLE MODE TEXT
Command qualifier:	RFU
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

Expected Sequence 2.3B (SET UP IDLE MODE TEXT, Icon is self-explanatory, colour icon, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.3.1	[Icon is self-explanatory]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.3.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.3.1B	[requested icon could not be displayed]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display "Idle text" without the icon	

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.3.1B

Logically:

Command details	
Command number:	1
Command type:	SET UP IDLE MODE TEXT
Command qualifier:	RFU
Device identities	
Source device:	ME

Destination device: SIM
Result
General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	04

Expected Sequence 2.4 (SET UP IDLE MODE TEXT, Icon is not self-explanatory, no text string)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 2.4.1	[Icon is not self-explanatory, no text string]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.4.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.4.1	
5	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 2.4.1

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: ME
Icon identifier
    Icon qualifier: icon is not self-explanatory
    Icon identifier: <record 1 in EF IMG>

Coding:

BER-TLV:	D0	0D	81	03	01	28	00	82	02	81	82	9E
	02	01	01									

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 2.4.1

Logically:

Command details
    Command number: 1
    Command type: SET UP IDLE MODE TEXT
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command data not understood by ME

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	32

27.22.4.22.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences 2.1A to 2.4.

27.22.4.22.3 SET UP IDLE MODE TEXT (UCS2 support)

27.22.4.22.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.22.3.2 Conformance requirement

The ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in:

- ISO/IEC 10646 [17].

27.22.4.22.3.3 Test purpose

To verify that the UCS2 coded text string is displayed by the ME as an idle mode text.

27.22.4.22.3.4 Method of test

27.22.4.22.3.4.1 Initial conditions

The ME is connected to both the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.22.3.4.2 Procedure

Expected Sequence 3.1 (SET UP IDLE MODE TEXT, UCS2 alphabet text)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP IDLE MODE TEXT 3.1.1	["Hello" in Russian]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP IDLE MODE TEXT 3.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP IDLE MODE TEXT 3.1.1	
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	Select idle screen	Only if idle screen not already available
7	ME → USER	Display " ЗДРАВСТВУЙТЕ"	["Hello" in Russian]

PROACTIVE COMMAND: SET UP IDLE MODE TEXT 3.1.1

Logically:

```
Command details
        Command number:        1
        Command type:          SET UP IDLE MODE TEXT
        Command qualifier:     RFU
Device identities
        Source device:         SIM
        Destination device:    ME
Text String
        Data coding scheme:    UCS2 (16bit)
```

| | Text: | | | | "ЗДРАВСТВУЙТЕ" | | | | | | |

Coding:

BER-TLV:	D0	24	81	03	01	28	00	82	02	81	82	8D
	19	08	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15										

TERMINAL RESPONSE: SET UP IDLE MODE TEXT 3.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          SET UP IDLE MODE TEXT
        Command qualifier:     RFU
    Device identities
        Source device:         ME
        Destination device:    SIM
    Result
        General Result:        Command performed successfully
```

Coding:

BER-TLV:	81	03	01	28	00	82	02	82	81	83	01	00

27.22.4.22.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.23   RUN AT COMMAND

27.22.4.23.1   RUN AT COMMAND (normal)

27.22.4.23.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.23.1.2   Conformance requirement

The ME shall support the Proactive SIM: RUN AT COMMAND facility as defined in:

- 3GPP TS 11.14 [15] clause 6.4.23, clause 6.6.23, clause 5.2, clause 6.8, clause 12.6, clause 12.7, clause 12.2, clause 12.40, clause 12.31 and clause 12.41.

- 3GPP TS 27.007 [18].

27.22.4.23.1.3   Test purpose

To verify that the ME responds to an AT Command contained within a RUN AT COMMAND as though it were initiated by an attached TE, and returns an AT Response within a TERMINAL RESPONSE to the SIM.

27.22.4.23.1.4   Method of test

27.22.4.23.1.4.1   Initial conditions

The ME is connected to the SIM Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

Prior to the test the ME shall be connected to the TE.

The TA-TE interface is set to 8-bit operation.

27.22.4.23.1.4.2 Procedure

Expected Sequence 1.1(RUN AT COMMAND, no alpha identifier presented, request IMSI)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 1.1.1	[no alpha identifier, request IMSI]
4	ME (→ User)	The ME may give information to the user concerning what is happening	
7	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 1.1.1	[Command performed successfully, AT Response containing IMSI]

PROACTIVE SIM COMMAND: RUN AT COMMAND 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: RUN AT COMMAND
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
    AT Command
        AT Command string: "AT+CIMI"

Coding:

BER-TLV:	D0	12	81	03	01	34	00	82	02	81	82	A8
	07	41	54	2B	43	49	4D	49				

TERMINAL RESPONSE: RUN AT COMMAND 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: RUN AT COMMAND
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    AT Response
        AT Response string: IMSI

Coding:

BER-TLV:	81	03	01	34	00	82	02	82	81	83	01	00
	A9	08	08	09	10	10	32	54	76	98		

Expected Sequence 1.2 (RUN AT COMMAND, null data alpha identifier presented, request IMSI)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 1.2.1	[null data alpha identifier, request IMSI]
4	ME	The ME should not give any information to user on the fact that the ME is performing an AT command	
7	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 1.1.1	[Command performed successfully, AT Response containing IMSI]

PROACTIVE SIM COMMAND: RUN AT COMMAND 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: RUN AT COMMAND
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
    Alpha Identifier   null data object
    AT Command
        AT Command string: "AT+CIMI"

Coding:

BER-TLV:	D0	14	81	03	01	34	00	82	02	81	82	85
	00	A8	07	41	54	2B	43	49	4D	49		

Expected Sequence 1.3 (RUN AT COMMAND, alpha identifier presented, request IMSI)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 1.3.1	[alpha identifier, request IMSI]
4	ME → USER	Display "Run AT Command"	
7	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 1.1.1	[Command performed successfully, AT Response containing IMSI]

PROACTIVE SIM COMMAND: RUN AT COMMAND 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: RUN AT COMMAND
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: ME
    Alpha Identifier

Alpha Identifier   "Run AT Command"
AT Command
AT Command string: "AT+CIMI"

Coding:

BER-TLV:	D0	22	81	03	01	34	00	82	02	81	82	85
	0E	52	75	6E	20	41	54	20	43	6F	6D	6D
	61	6E	64	A8	07	41	54	2B	43	49	4D	49

27.22.4.23.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.4.23.2   RUN AT COMMAND (Icon support)

27.22.4.23.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.23.2.2   Conformance requirement

The ME shall support the Proactive SIM: RUN AT COMMAND facility as defined in:

- 3GPP TS 11.14 [15] clause 6.4.23, clause 6.6.23, clause 5.2, clause 6.8, clause 12.6, clause 12.7, clause 12.2, clause 12.40, clause 12.31 and clause 12.41.

- 3GPP TS 27.007 [18].

27.22.4.23.2.3   Test purpose

To verify that the ME responds to an AT Command contained within a RUN AT COMMAND as though it were initiated by an attached TE, and returns an AT Response within a TERMINAL RESPONSE to the SIM.

In addition to verify that if an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier.

27.22.4.23.2.4   Method of test

27.22.4.23.2.4.1   Initial conditions

The ME is connected to the SIM Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

Prior to the test the ME shall be connected to the TE.

The TA-TE interface is set to 8-bit operation.

The ME screen shall be in its normal stand-by display.

27.22.4.23.2.4.2 Procedure

Expected Sequence 2.1A (RUN AT COMMAND, basic icon self explanatory, request IMSI, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.1.1	[BASIC-ICON, self-explanatory, request IMSI]
4	ME → USER	Display BASIC ICON without the alpha identifier	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1A	[Command performed successfully, AT response containing IMSI]

PROACTIVE COMMAND: RUN AT COMMAND 2.1.1

Logically:

```
Command details
      Command number:        1
      Command type:          RUN AT COMMAND
      Command qualifier:     "00"
Device identities
      Source device:         SIM
      Destination device:    ME
Alpha Identifier
      Alpha identifier:      "Basic Icon"
AT Command
      AT Command string:     "AT+CIMI"
Icon identifier:
      Icon qualifier:        icon is self-explanatory
      Icon identifier:       record 1 in EF(IMG)
```

Coding:

BER-TLV:	D0	22	81	03	01	34	00	82	02	81	82	85
	0A	42	61	73	69	63	20	49	63	6F	6E	A8
	07	41	54	2B	43	49	4D	49	9E	02	00	01

TERMINAL RESPONSE: RUN AT COMMAND 2.1.1A

Logically:

```
Command details
      Command number:        1
      Command type:          RUN AT COMMAND
      Command qualifier:     "00"
Device identities
      Source device:         ME
      Destination device:    SIM
Result
      General Result:        Command performed successfully
AT Response
      AT Response string:    IMSI
```

Coding:

BER-TLV:	81	03	01	34	00	82	02	82	81	83	01	00

A9	08	08	09	10	10	32	54	76	98		

Expected Sequence 2.1B (RUN AT COMMAND, basic icon self explanatory, request IMSI, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.1.1	[BASIC-ICON, self-explanatory, request IMSI]
4	ME → USER	Display "Basic Icon" without the BASIC-ICON	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1B	[Command performed but requested icon could not be displayed, AT response containing IMSI]

TERMINAL RESPONSE: RUN AT COMMAND 2.1.1B

Logically:

    Command details
        Command number: 1
        Command type: RUN AT COMMAND
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully, but requested icon could not be displayed
    AT Response
        AT Response string: IMSI

Coding:

BER-TLV:	81	03	01	34	00	82	02	82	81	83	01	04
	A9	08	08	09	10	10	32	54	76	98		

Expected Sequence 2.2A (RUN AT COMMAND, colour icon self explanatory, request IMSI, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.2.1	[COLOUR-ICON, self-explanatory, request IMSI]
4	ME → USER	Display COLOUR-ICON without the alpha identifier	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1A	[Command performed successfully, AT response containing IMSI]

PROACTIVE COMMAND: RUN AT COMMAND 2.2.1

Logically:

Command details
    Command number: 1
    Command type: RUN AT COMMAND
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
Alpha Identifier
    Alpha identifier: "Colour Icon"
AT Command
    AT Command string: "AT+CIMI"
Icon identifier:
    Icon qualifier: icon is self-explanatory
    Icon identifier: record 2 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	23	81	03	01	34	00	82	02	81	82	A8
	0B	43	6F	6C	6F	75	72	20	49	63	6F	6E
	A8	07	41	54	2B	43	49	4D	49	9E	02	00
	02											

Expected Sequence 2.2B (RUN AT COMMAND, colour icon self explanatory, request IMSI, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.2.1	[COLOUR-ICON, self-explanatory, request IMSI]
4	ME → USER	Display "Colour Icon" without the COLOUR-ICON	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1B	[Command performed but requested icon could not be displayed, AT response containing IMSI]

Expected Sequence 2.3A (RUN AT COMMAND, basic icon non self-explanatory, request IMSI, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.3.1	[BASIC-ICON, non self-explanatory, request IMSI]
4	ME → USER	Display "Basic Icon" and BASIC-ICON	
7	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1A	[Command performed successfully, AT response containing IMSI]

PROACTIVE COMMAND: RUN AT COMMAND 2.3.1

Logically:

Command details
    Command number: 1

	Command type:	RUN AT COMMAND
	Command qualifier:	"00"
Device identities		
	Source device:	SIM
	Destination device:	ME
Alpha Identifier		
	Alpha identifier:	"Basic Icon"
AT Command		
	AT Command string:	"AT+CIMI"
Icon identifier		
	Icon qualifier:	icon is non self-explanatory
	Icon identifier:	record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	22	81	03	01	34	00	82	02	81	82	85
	0A	42	61	73	69	63	20	49	63	6F	6E	A8
	07	41	54	2B	43	49	4D	49	9E	02	01	01

Expected Sequence 2.3B (RUN AT COMMAND, basic icon non self-explanatory, request IMSI, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.3.1	[BASIC-ICON, non self-explanatory, request IMSI]
4	ME → USER	Display "Basic Icon" without BASIC-ICON	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1B	[Command performed but requested icon could not be displayed, AT response containing IMSI]

Expected Sequence 2.4A (RUN AT COMMAND, colour icon non self-explanatory, request IMSI, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.4.1	[COLOUR-ICON, non self-explanatory, request IMSI]
4	ME → USER	Display "Colour Icon" and COLOUR-ICON	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1A	[Command performed successfully, AT response containing IMSI]

PROACTIVE COMMAND: RUN AT COMMAND 2.4.1

Logically:

Command details		
	Command number:	1
	Command type:	RUN AT COMMAND
	Command qualifier:	"00"
Device identities		

	Source device:	SIM
	Destination device:	ME
Alpha Identifier		
	Alpha identifier:	"Colour Icon"
AT Command		
	AT Command string:	"AT+CIMI"
Icon identifier:		
	Icon qualifier:	icon is self-explanatory
	Icon identifier:	record 2 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	23	81	03	01	34	00	82	02	81	82	85
	0B	43	6F	6C	6F	75	72	20	49	63	6F	6E
	A8	07	41	54	2B	43	49	4D	49	9E	02	01
	02											

Expected Sequence 2.4B (RUN AT COMMAND, colour icon non self-explanatory, request IMSI, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND 2.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.4.1	[COLOUR-ICON, non self-explanatory, request IMSI]
4	ME → USER	Display "Colour Icon" without COLOUR-ICON	
5	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.1.1B	[Command performed but requested icon could not be displayed, AT response containing IMSI]

Expected Sequence 2.5 (RUN AT COMMAND, basic icon non self-explanatory, no alpha identifier presented)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: RUN AT COMMAND SS 2.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: RUN AT COMMAND 2.5.1	[BASIC-ICON, non self-explanatory]
4	ME → SIM	TERMINAL RESPONSE: RUN AT COMMAND 2.5.1	[Command data not understood by ME]

PROACTIVE COMMAND: RUN AT COMMAND 2.5.1

Logically:

Command details		
	Command number:	1
	Command type:	RUN AT COMMAND
	Command qualifier:	"00"
Device identities		
	Source device:	SIM
	Destination device:	ME
AT Command		
	AT Command string:	"AT+CIMI"
Icon identifier		
	Icon qualifier:	icon is non self-explanatory

Icon identifier: record 1 in EF(IMG)

Coding:

BER-TLV:	D0	16	81	03	01	34	00	82	02	81	82	A8
	07	41	54	2B	43	49	4D	49	9E	02	01	01

TERMINAL RESPONSE: RUN AT COMMAND 2.5.1

Logically:

Command details
    Command number: 1
    Command type: RUN AT COMMAND
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME
Result
    General Result: Command data not understood by ME

Coding:

BER-TLV:	81	03	01	34	00	82	02	82	81	83	01	32

27.22.4.23.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.5.

27.22.4.24 SEND DTMF

27.22.4.24.1 SEND DTMF (Normal)

27.22.4.24.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.24.1.2 Conformance requirement

The ME shall support the Proactive SIM: Send DTMF facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.24, clause 6.6.24, clause 12.12.2, clause 5.2, clause 12.6, clause 12.7, clause 12.2 and clause 12.44.

27.22.4.24.1.3 Test purpose

To verify that after a call has been successfully established the ME sends the DTMF string contained in the SEND DTMF proactive SIM command to the network, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that the ME does not locally generate audible DTMF tones and play them to the user.

To verify that if the ME is in idle mode it informs the SIM using TERMINAL RESPONSE '20' with the additional information "Not in speech call".

To verify that the ME displays the text contained in the SEND DTMF proactive SIM command.

To verify that if an alpha identifier is provided by the SIM and is a null data object the ME does not give any information to the user on the fact that the ME is performing a SEND DTMF command.

27.22.4.24.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

27.22.4.24.1.4. 2   Procedure

Expected Sequence 1.1 (SEND DTMF, normal)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 1.1.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 1.1.1	
7	ME → USER	May give information to the user concerning what is happening. Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 1.1.1	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 1.1.1

Logically:

    Command details
            Command number: 1
            Command type: SEND DTMF
            Command qualifier: "00"
    Device identities
            Source device: SIM
            Destination device: Network
            DTMF String: "1" pause "2"

Coding:

BER-TLV:	D0	0D	81	03	01	14	00	82	02	81	83	AC
	02	C1	F2									

Start DTMF 1.1

Logically:

DTMF String: "1"

Start DTMF 1.2

Logically:

DTMF String: "2"

TERMINAL RESPONSE: SEND DTMF 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SEND DTMF
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	14	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (SEND DTMF, containing alpha identifier)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 1.2.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 1.2.1	
7	ME → USER	Display "Send DTMF" Do not locally generate audible DTMF tones and play them to the user.	Alpha identifier
8	ME → SS	Start DTMF 1.1	["1"]
9	ME → SS	Start DTMF 1.2	["2"]
10	ME → SS	Start DTMF 1.3	["3"]
11	ME → SS	Start DTMF 1.4	["4"]
12	ME → SS	Start DTMF 1.5	["5"]
13	ME → SS	Start DTMF 1.6	["6"]
14	ME → SS	Start DTMF 1.7	["7"]
15	ME → SS	Start DTMF 1.8	["8"]
16	ME → SS	Start DTMF 1.9	["9"]
17	ME → SS	Start DTMF 1.10	["0"]
18	ME → SIM	TERMINAL RESPONSE: SEND DTMF 1.1.1	[Command performed successfully]
19	SIM → ME	PROACTIVE SIM SESSION ENDED	
20	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND DTMF
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Send DTMF"
        DTMF String: "1234567890"

Coding:

BER-TLV:	D0	1B	81	03	01	14	00	82	02	81	83	85
	09	53	65	6E	64	20	44	54	4D	46	AC	05
	21	43	65	87	09							

Start DTMF 1.3

Logically:

    DTMF String: "3"

Start DTMF 1.4

Logically:

    DTMF String: "4"

Start DTMF 1.5

Logically:

    DTMF String: "5"

Start DTMF 1.6

Logically:

    DTMF String: "6"

Start DTMF 1.7

Logically:

    DTMF String: "7"

Start DTMF 1.8

Logically:

    DTMF String: "8"

Start DTMF 1.9

Logically:

    DTMF String: "9"

Start DTMF 1.10

Logically:

    DTMF String: "0"

Expected Sequence 1.3 (SEND DTMF, containing alpha identifier with null data object)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 1.3.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 1.3.1	Alpha identifier with null data object
7	ME → USER	Do not give any information to the user on the fact that the ME is performing a SEND DTMF command. Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 30 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 1.1.1	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: SEND DTMF
        Command qualifier: "00"
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "" (null data object)
        DTMF String: "1" pause pause pause pause pause pause pause pause pause "2"

Coding:

BER-TLV:	D0	13	81	03	01	14	00	82	02	81	83	85
	00	AC	06	C1	CC	CC	CC	CC	2C			

Expected Sequence 1.4 (SEND DTMF, mobile is not in a speech call)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 1.1.1	[Mobile is not in a speech call]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SEND DTMF 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SEND DTMF 1.4.1	[ME currently unable to process command, not in speech call]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	

TERMINAL RESPONSE: SEND DTMF 1.4.1

Logically:

    Command details
        Command number: 1
        Command type: SEND DTMF
        Command qualifier: "00"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: ME currently unable to process command
        Additional information: Not in speech call

Coding:

BER-TLV:	81	03	01	14	00	82	02	82	81	83	02	20
	07											

27.22.4.24.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences.

27.22.4.24.2   SEND DTMF (Display of icons)

27.22.4.24.2.1   Definition and applicability

See clause 3.2.2.

27.22.4.24.2.2   Conformance requirement

The ME shall support the Proactive SIM: Send DTMF facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.24, clause 6.6.24, clause 12.12.2, clause 5.2, clause 12.6, clause 12.7, clause 12.2, clause 12.44, clause 12.31 and clause 6.5.4.

27.22.4.24.2.3   Test purpose

To verify that after a call has been successfully established the ME send the DTMF string contained in the SEND DTMF proactive SIM command to the network, and returns a successful response in the TERMINAL RESPONSE command sent to the SIM.

To verify that the ME do not locally generate audible DTMF tones and play them to the user.

To verify that the ME displays the text contained in the SEND DTMF proactive SIM command.

To verify that the ME displays the icons which are referred to in the contents of the SEND DTMF proactive SIM command.

27.22.4.24.2.4   Method of test

27.22.4.24.2.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

Prior to this test the ME shall have been powered on, performed the PROFILE DOWNLOAD procedure and be in updated idle mode on the System Simulator.

The elementary files are coded as Toolkit default.

27.22.4.24.2.4.2   Procedure

Expected Sequence 2.1A (SEND DTMF, BASIC ICON self explanatory, successful)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.1.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.1.1	[BASIC-ICON, self-explanatory]
7	ME → USER	Display the BASIC-ICON Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1A	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 2.1.1

Logically:

    Command details
          Command number: 1
          Command type: SEND DTMF
          Command qualifier: "00"
    Device identities
          Source device: SIM
          Destination device: Network
          Alpha identifier: "Basic Icon"
          DTMF String: "1" pause "2"
    Icon identifier
          Icon qualifier: icon is self-explanatory
          Icon identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	1D	81	03	01	14	00	82	02	81	83	85
	0A	42	61	73	69	63	20	49	63	6F	6E	AC
	02	C1	F2	9E	02	00	01					

DTMF Request 2.1.1

Logically:

DTMF String: $DTMF_2.1$ = "C1 F2" (given as example)

TERMINAL RESPONSE: SEND DTMF 2.1.1A

Logically:

Command details
    Command number: 1
    Command type: SEND DTMF
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	14	00	82	02	82	81	83	01	00

Expected Sequence 2.1B (SEND DTMF, BASIC ICON self explanatory, requested icon could not be displayed)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.1.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.1.1	[BASIC-ICON, self-explanatory]
7	ME → USER	Display "Basic Icon" without the icon Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20 %
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1B	[Command performed successfully, but requested icon could not be displayed]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

TERMINAL RESPONSE: SEND DTMF 2.1.1B

Logically:

Command details
    Command number: 1
    Command type: SEND DTMF
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully, but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	14	00	82	02	82	81	83	01	04

Expected Sequence 2.2A (SEND DTMF, COLOUR-ICON self explanatory, successful)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.2.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.2.1	[COLOUR-ICON]
7	ME → USER	Display the COLOUR-ICON Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1A	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 2.2.1

Logically:

Command details
    Command number: 1
    Command type: SEND DTMF
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Colour Icon"
    DTMF String: "1" pause "2"
Icon identifier:
    Icon qualifier: icon is self-explanatory

Icon identifier: record 2 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	1E	81	03	01	14	00	82	02	81	83	85
	0B	43	6F	6C	6F	75	72	20	49	63	6F	6E
	AC	02	C1	F2	9E	02	00	02				

Expected Sequence 2.2B (SEND DTMF, COLOUR-ICON self explanatory, requested icon could not be displayed)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.2.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.2.1	[COLOUR-ICON]
7	ME → USER	Display "Colour Icon" without the icon Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1B	[Command performed successfully, but requested icon could not be displayed]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

Expected Sequence 2.3A (SEND DTMF, Alpha identifier & BASIC-ICON, not self-explanatory, successful)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.3.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.3.1	[Alpha identifier & BASIC-ICON, not self-explanatory]
7	ME → USER	Display "Send DTMF" and the BASIC-ICON Do not locally generate audible DTMF tones and play them to the user.	

8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20 %
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1A	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 2.3.1

Logically:

Command details
    Command number: 1
    Command type: SEND DTMF
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: Network
    Alpha identifier: "Send DTMF"
    DTMF String: "1" pause "2"
Icon identifier:
    Icon qualifier: icon is not self-explanatory
    Icon identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	1C	81	03	01	14	00	82	02	81	83	85
	09	53	65	6E	64	20	44	54	4D	46	AC	02
	C1	F2	9E	02	01	01						

Expected Sequence 2.3B (SEND DTMF, Alpha identifier & BASIC-ICON, not self-explanatory, requested icon could not be displayed)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 2.3.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 2.3.1	[Alpha identifier & BASIC-ICON, not self-explanatory]
7	ME → USER	Display "Send DTMF" without the icon Do not locally generate audible DTMF tones and play them to the user.	
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 2.1.1B	[Command performed successfully, but requested icon could not be displayed]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	

| 13 | User → ME | End the call | |

27.22.4.24.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences.

27.22.4.24.3 SEND DTMF (UCS2 support)

27.22.4.24.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.24.3.2 Conformance requirement

The ME shall support the Proactive SIM: Send DTMF facility as defined in:

- 3GPP TS 11.14 [15] clause 6.1, clause 6.4.24, clause 6.6.24, clause 12.12.2, clause 5.2, clause 12.6, clause 12.7, clause 12.2 and clause 12.44.

Additionally the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in:

- ISO/IEC 10646. [17].

27.22.4.24.3.3 Test purpose

To verify that the ME displays the UCS2 text contained in the SEND DTMF proactive SIM command, and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.24.3.4 Method of test

27.22.4.24.3.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.24.3.4.2 Procedure

Expected Sequence 3.1 (SEND DTMF, successful, UCS2 text)

Some details of the DTMF protocol have been left out for clarity.

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call to "+0123456789"	
2	ME → SS	The ME attempts to set up a call to "+0123456789"	
3	SS → ME	The ME receives the CONNECT message from the system simulator.	
4	SIM → ME	PROACTIVE COMMAND PENDING: SEND DTMF 3.1.1	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND: SEND DTMF 3.1.1	
7	ME → USER	Display "ЗДРАВСТВУЙТЕ"	["Hello" in Russian]
8	ME → SS	Start DTMF 1.1	["1"]
9	ME		No DTMF sending for 3 seconds ±20%
10	ME → SS	Start DTMF 1.2	["2"]
11	ME → SIM	TERMINAL RESPONSE: SEND DTMF 3.1.1	[Command performed successfully]
12	SIM → ME	PROACTIVE SIM SESSION ENDED	
13	User → ME	End the call	

PROACTIVE COMMAND: SEND DTMF 3.1.1

Logically:

        Command details
                Command number: 1
                Command type: SEND DTMF
                Command qualifier: "00"
        Device identities
                Source device: SIM
                Destination device: Network
        Alpha Identifier
                Text: "ЗДРАВСТВУЙТЕ"
                DTMF String: "1" pause "2"

Coding:

BER-TLV:	D0	28	81	03	01	14	00	82	02	81	83	85
	19	80	04	17	04	14	04	20	04	10	04	12
	04	21	04	22	04	12	04	23	04	19	04	22
	04	15	AC	02	C1	F2						

TERMINAL RESPONSE: SEND DTMF 3.1.1

Logically:

        Command details
                Command number: 1
                Command type: SEND DTMF
                Command qualifier: "00"
        Device identities
                Source device: ME
                Destination device: SIM
        Result
                General Result: Command performed successful

Coding:

BER-TLV:	81	03	01	14	00	82	02	82	81	83	01	00

27.22.4.12.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.

27.22.4.25 LANGUAGE NOTIFICATION

27.22.4.25.1 Definition and applicability

See clause 3.2.2.

27.22.4.25.2 Conformance Requirement

The ME shall conclude the command by sending TERMINAL RESPONSE (OK) to the SIM, as soon as possible after receiving the LANGUAGE NOTIFICATION proactive SIM command.

- 3GPP TS 11.14 clause 6.4.25 and clause 6.6.25.

27.22.4.25.3 Test purpose

To verify that the ME shall send a TERMINAL RESPONSE (OK) to the SIM after the ME receives the LANGUAGE NOTIFICATION proactive SIM command.

27.22.4.25.4 Method of Test

27.22.4.25.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.25.4.2 Procedure

Expected Sequence 1.1 (LANGUAGE NOTIFICATION)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LANGUAGE NOTIFICATION 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LANGUAGE NOTIFICATION 1.1.1	Language specified in the command is different from the one set on the mobile.
4	ME → SIM	TERMINAL RESPONSE: LANGUAGE NOTIFICATION 1.1.1	[Command performed successfully]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	Check that language of ME has been replaced by the one specified in LANGUAGE NOTIFICATION 1.1.1

PROACTIVE COMMAND: LANGUAGE NOTIFICATION 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: LANGUAGE NOTIFICATION
        Command qualifier: "01" (specific language notification)
    Device identities
        Source device: SIM
        Destination device: ME
    Language

Language   'se'(Spanish) → 73 65
                            or 'de'→64 65 (German) for instance: choose a language different
                            from the one initially set on the ME to check the proper execution
                            of the command

Coding:

BER-TLV:	D0	0D	81	03	01	35	01	82	02	81	82	AD
	02	73	65									

TERMINAL RESPONSE: LANGUAGE NOTIFICATION 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: LANGUAGE NOTIFICATION
        Command qualifier: "01"
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	35	01	82	02	82	81	83	01	00

Expected Sequence 1.2 (LANGUAGE NOTIFICATION)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LANGUAGE NOTIFICATION 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LANGUAGE NOTIFICATION 1.1.1	Language specified in the command is different from the one set on the mobile.
4	ME → SIM	TERMINAL RESPONSE: LANGUAGE NOTIFICATION 1.1.1	[Command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: LANGUAGE NOTIFICATION 1.2.1	
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: LANGUAGE NOTIFICATION 1.2.1	
8	ME → SIM	TERMINAL RESPONSE: LANGUAGE NOTIFICATION 1.2.1	[Command performed successfully]
9	SIM → ME	PROACTIVE SIM SESSION ENDED	Check that initial language is set again.

PROACTIVE COMMAND: LANGUAGE NOTIFICATION 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: LANGUAGE NOTIFICATION
        Command qualifier: "00" (non specific language notification)
    Device identities
        Source device: SIM
        Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	35	00	82	02	81	82

TERMINAL RESPONSE: LANGUAGE NOTIFICATION 1.2.1

Logically:

```
Command details
      Command number:        1
      Command type:          LANGUAGE NOTIFICATION
      Command qualifier:     "00"
Device identities
      Source device:         ME
      Destination device:    SIM
Result
      General Result:        Command performed successfully
```

Coding:

BER-TLV:	81	03	01	35	00	82	02	82	81	83	01	00

27.22.4.25.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 and 1.2.

27.22.4.26   LAUNCH BROWSER

27.22.4.26.1   LAUNCH BROWSER (No session already launched)

27.22.4.26.1.1   Definition and applicability

See clause 3.2.2.

27.22.4.26.1.2   Conformance requirements

The ME shall support the LAUNCH BROWSER Proactive SIM Command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clauses 6.4.26 and 6.6.26, clause 12.6, clause 12.7, clause 12.48, clause 13.2, clause 12.2, clause 12.47, clause 12.49, clause 12.50, clause 12.15 and clause 12.31.

27.22.4.26.1.3   Test purpose

To verify that when the ME is in idle state, it launches properly the Wap session required in LAUNCH BROWSER, and returns a successful result in the TERMINAL RESPONSE command.

27.22.4.26.1.4   Method of test

27.22.4.26.1.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

A valid access to 2 different Wap gateways is required:

- the default Wap parameters (IP address, gateway/proxy identity, called number, URL …) of the tested mobile shall be properly filled to access one of the gateways ("default gateway")

With that default gateway we shall be able to access to an URL different from the default one.

- another gateway with an IP address different from the one defined in default Wap parameters.

The mobile is in idle mode.

27.22.4.26.1.4.2   Procedure

Expected Sequence 1.1 (LAUNCH BROWSER, connect to the default URL)

Step	Direction	MESSAGE / Action	Comments
0	ME		[the ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.1.1	[connect to the default URL, "launch browser, if not already launched", no null alpha id.]
4	ME → USER	ME displays the alpha identifier	
5	USER → ME	The user may have to confirm the launch browser.	[option: user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.1.1	[Command performed successfully]
7	ME→SS	The ME attempts to launch the session with the default Wap parameters and the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default Wap session is properly established. Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: launch browser, if not already launched
    Device identities
        Source device: SIM
        Destination device: ME
        URL   empty
    Alpha Identifier   "Default URL"

Coding:

BER-TLV:	D0	18	81	03	01	15	00	82	02	81	82	31
	00	05	0B	44	65	66	61	75	6C	74	20	55
	52	4C										

TERMINAL RESPONSE: LAUNCH BROWSER 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: launch browser, if not already launched

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (LAUNCH BROWSER, connect to the specified URL, alpha identifier length=0)

Step	Direction	MESSAGE / Action	Comments
0	ME		[the ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.2.1	[connect to defined URL, "launch browser, if not already launched, alpha identifier length=0]
4	ME → USER	No information should be displayed.	
5	USER → ME	The user may have to confirm the launch browser.	[option: user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.2.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the URL specified in the LAUNCH BROWSER command.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the URL is properly connected. Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 1.2.1

Logically:

Command details
    Command number: 1
    Command type: LAUNCH BROWSER
    Command qualifier: launch browser, if not already launched
Device identities
    Source device: SIM
    Destination device: ME
    URL   http://xxx.yyy.zzz (note: this URL shall be different from the default URL, but it can be reached from the gateway defined by default in the Wap parameters of the mobile)
Alpha Identifier   empty

Coding:

BER-TLV:	D0	1F	81	03	01	15	00	82	02	81	82	31
	12	68	74	74	70	3A	2F	2F	78	78	78	2E
	79	79	79	2E	7A	7A	7A	05	00			

TERMINAL RESPONSE: LAUNCH BROWSER 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: launch browser, if not already launched
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	00	82	02	82	81	83	01	00

Expected Sequence 1.3 (LAUNCH BROWSER, Browser identity, no alpha identifier)

Step	Direction	MESSAGE / Action	Comments
0	ME		[the ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.3.1	[connect to the default URL, "launch browser, if not already launched, browser identity]
4	ME → USER	ME may display a default message of its own.	
5	USER → ME	The user may confirm the launch browser.	[option: user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.3.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default Wap session is properly established. Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: launch browser, if not already launched
    Device identities
        Source device: SIM
        Destination device: ME
        Browser Identity   default
        URL   empty

Coding::

BER-TLV:	D0	0E	81	03	01	15	00	82	02	81	82	30
	01	00	31	00								

TERMINAL RESPONSE: LAUNCH BROWSER 1.3.1

Logically:

Command details
    Command number: 1
    Command type: LAUNCH BROWSER
    Command qualifier: launch browser, if not already launched
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	00	82	02	82	81	83	01	00

Expected Sequence 1.4 (LAUNCH BROWSER, only GPRS bearer specified and gateway/proxy identity, GPRS supported by SS)

Step	Direction	MESSAGE / Action	Comments
0	ME		[the ME is in idle mode], GPRS supported by SS, GPRS supported by the ME and activated]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.4.1	[connect to the default URL, "launch browser, if not already launched, 1 bearer specified, gateway/proxy id specified]
4	ME → USER	ME may display a default message	
5	USER → ME	The user may confirm the launch browser.	[option: user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.4.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the default URL using the requested bearer and proxy identity	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the Wap session is properly established with the required bearer. Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 1.4.1

Logically:

Command details
    Command number: 1
    Command type: LAUNCH BROWSER
    Command qualifier: launch browser, if not already launched
Device identities
    Source device: SIM
    Destination device: ME
    URL   empty
    Bearer   GPRS

Gateway/Proxy id
DCSunpacked, 8 bits data
Text string abc.def.ghi (different from the default IP address)

Coding::

BER-TLV:	D0	1C	81	03	01	15	00	82	02	81	82	31
	00	32	01	03	0D	0C	04	61	62	63	2E	64
	65	66	2E	67	68	69						

TERMINAL RESPONSE: LAUNCH BROWSER 1.4.1

Logically:

Command details
Command number: 1
Command type: LAUNCH BROWSER
Command qualifier: launch browser, if not already launched
Device identities
Source device: ME
Destination device: SIM
Result
General Result: Command performed successfully

Coding:

BER-TLV: 81 03 01 15 00 82 02 82 81 83 01 00

Expected Sequence 1.5A (LAUNCH BROWSER, two bearers GPRS, CSD specified and activated at SS and ME, gateway/proxy id specified)

Step	Direction	MESSAGE / Action	Comments
0	ME		[ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.5.1	[connect to the default URL, "launch browser, if not already launched, several bearers, gateway/proxy id specified]
4	ME → USER	ME may display a default message	
5	USER → ME	The user may confirm the launch browser.	[option: user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.5.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the Wap session is properly established with the required bearer that is first in priority (GPRS). Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 1.5.1

Logically:

Command details
    Command number: 1
    Command type: LAUNCH BROWSER
    Command qualifier: launch browser, if not already launched
Device identities
    Source device: SIM
    Destination device: ME
    URL   empty
    Bearer   GPRS, CSD
Gateway/Proxy id
    DCS   7 bits default alphabet
    Text string   abc.def.ghi (different from the default IP address)

Coding::

BER-TLV:	D0	1C	81	03	01	15	00	82	02	81	82	31
	00	32	02	03	01	0D	0B	00	61	F1	D8	45
	2E	9B	5D	67	74	1A						

TERMINAL RESPONSE: LAUNCH BROWSER 1.5.1

Logically:

Command details
    Command number: 1
    Command type: LAUNCH BROWSER
    Command qualifier: launch browser, if not already launched
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	00	82	02	82	81	83	01	00

Expected Sequence 1.5B (LAUNCH BROWSER, two bearers GPRS, CSD specified and activated at SS, only CSD supported and activated by the ME, gateway/proxy id specified)

Step	Direction	MESSAGE / Action	Comments
0	ME		[ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.5.1	[connect to the default URL, "launch browser, if not already launched", several bearers, gateway/proxy id specified]
4	ME → USER	ME asks for user confirmation	
5	USER → ME	The user confirms the launch browser.	
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.5.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the Wap session is properly established with the CSD bearer. Then he/she ends the navigation. The ME returns in idle mode.	

Expected Sequence 1.5C (LAUNCH BROWSER, only CSD bearer specified and activated at SS, GPRS and CSD supported and activated by the ME, gateway/proxy id specified)

Step	Direction	MESSAGE / Action	Comments
0	ME		[ME is in idle mode]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 1.5.1	[connect to the default URL, "launch browser, if not already launched", several bearers, gateway/proxy id specified]
4	ME → USER	ME asks for user confirmation	
5	USER → ME	The user confirms the launch browser.	
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 1.5.1	[Command performed successfully]
7	ME→SS	The ME attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the Wap session is properly established with the CSD bearer. Then he/she ends the navigation. The ME returns in idle mode.	

27.22.4.26.1.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.5

27.22.4.26.2 LAUNCH BROWSER (Interaction with current session)

27.22.4.26.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.26.2.2 Conformance requirements

The ME shall support the LAUNCH BROWSER Proactive SIM Command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clauses 6.4.26 and 6.6.26, clause 12.6, clause 12.7, clause 12.48, clause 13.2, clause 12.2, clause 12.47, optional clause 12.49, optional clause 12.50, clause 12.15 and clause 12.31.

27.22.4.26.2.3 Test purpose

To verify that when the ME is already busy in a Wap session, it launches properly the Wap session required in LAUNCH BROWSER, and returns a successful result in the TERMINAL RESPONSE.

27.22.4.26.2.4 Method of test

27.22.4.26.2.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

A valid access to a Wap gateway is required. The default Wap parameters (IP address, gateway/proxy identity, called number…) of the tested mobile shall be properly filled to access that gateway.

The mobile is busy in a Wap session, the user navigates in pages different from the URL defined by default in Wap parameters.

27.22.4.26.2.4.2 Procedure

Expected Sequence 2.1 (LAUNCH BROWSER, use the existing browser, connect to the default URL)

Step	Direction	MESSAGE / Action	Comments
0	ME	The user is navigating in a Wap session (not default URL).	[Browser is in use, the current session is not secured]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 2.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 2.1.1	[connect to the default URL, "use the existing browser", no null alpha id.]
4	ME → USER	ME displays the alpha identifier	
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 2.1.1	[Command performed successfully]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

PROACTIVE COMMAND: LAUNCH BROWSER 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: SIM
        Destination device: ME
        URL   empty
    Alpha Identifier   "Default URL"

Coding:

BER-TLV:	D0	18	81	03	01	15	02	82	02	81	82	31
	00	05	0B	44	65	66	61	75	6C	74	20	55
	52	4C										

TERMINAL RESPONSE: LAUNCH BROWSER 2.1.1

Logically:

    Command details
        Command number: 1

	Command type:	LAUNCH BROWSER
	Command qualifier:	use the existing browser
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	00

Expected Sequence 2.2 (LAUNCH BROWSER, close the existing browser session and launch new browser session, connect to the default URL)

Step	Direction	MESSAGE / Action	Comments
0	ME	The user is navigating in a Wap session (not default URL)..	[Browser is in use, the current session is not secured]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 2.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 2.2.1	[connect to the default URL, "close the existing browser session and launch new browser session", no null alpha id.]
4	ME → USER	ME displays the alpha identifier	
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 2.2.1	[Command performed successfully]
7	ME→SS	The ME closes the existing session and attempts to launch the session with the default Wap parameters and the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL cannot be retrieved (to verify the previous session has been closed). Then he/she does not end the navigation.	

PROACTIVE COMMAND: LAUNCH BROWSER 2.2.1

Logically:

Command details		
	Command number:	1
	Command type:	LAUNCH BROWSER
	Command qualifier:	close the existing browser session and launch new browser sessionDevice identities
	Source device:	SIM
	Destination device:	ME
	URL	empty
Alpha Identifier		"Default URL"

Coding:

BER-TLV:	D0	18	81	03	01	15	03	82	02	81	82	31
	00	05	0B	44	65	66	61	75	6C	74	20	55
	52	4C										

TERMINAL RESPONSE: LAUNCH BROWSER 2.2.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: close the existing browser session and launch new browser session
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	03	82	02	82	81	83	01	00

Expected Sequence 2.3 (LAUNCH BROWSER, if not already launched)

Step	Direction	MESSAGE / Action	Comments
0	ME	The user is navigating in a Wap session (not default URL)..	[Browser is in use, the current session is not secured]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 2.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 2.3.1	[connect to the default URL, "launch browser, if not already launched]
4	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 2.3.1	[ME unable to process command - browser unavailable]
5	SIM → ME	PROACTIVE SIM SESSION ENDED	
6	USER → ME	The user verifies that the default URL has not been connected. Then he/she ends the navigation. The ME returns in idle mode.	

PROACTIVE COMMAND: LAUNCH BROWSER 2.3.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: launch browser, if not already launched
    Device identities
        Source device: SIM
        Destination device: ME
        URL   empty

Coding:

BER-TLV:	D0	0B	81	03	01	15	00	82	02	81	82	31
	00											

TERMINAL RESPONSE: LAUNCH BROWSER 2.3.1

Logically:

    Command details
        Command number: 1

	Command type:	LAUNCH BROWSER
	Command qualifier:	launch browser, if not already launched
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Launch browser generic error code
Additional data		Browser unavailable

Coding:

BER-TLV:	81	03	01	15	00	82	02	82	81	83	02	26
	02											

27.22.4.26.2.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.3.

27.22.4.26.3 LAUNCH BROWSER (UCS2 support)

27.22.4.26.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.26.3.2 Conformance requirements

The ME shall support the LAUNCH BROWSER Proactive SIM Command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clauses 6.4.26 and 6.6.26, clause 12.6, clause 12.7, clause 12.48, clause 13.2, clause 12.2, clause 12.47, optional clause 12.49, optional clause 12.50, clause 12.15 and clause 12.31.

Additionally the ME shall support the UCS2 facility for the coding of the Cyrillic alphabet, as defined in:

- ISO/IEC 10646 [17].

27.22.4.26.2.3 Test purpose

To verify that the ME performs a proper user confirmation with an USC2 alpha identifier, launches the Wap session required in LAUNCH BROWSER and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.26.3.4 Method of test

27.22.4.26.3.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

A valid access to 2 different Wap gateways is required:

- the default Wap parameters (IP address, gateway/proxy identity, called number, URL …) of the tested mobile shall be properly filled to access one of the gateways ("default gateway").

    With that default gateway we shall be able to access to an URL different from the default one.

- another gateway with an IP address different from the one defined in default Wap parameters.

The mobile is busy in a Wap session, the user navigates in pages different from the URL defined by default in Wap parameters.

27.22.4.26.3.4.2 Procedure

Expected Sequence 3.1 (LAUNCH BROWSER, use the existing browser, connect to the default URL)

Step	Direction	MESSAGE / Action	Comments
0	ME	The user is navigating in a Wap session (not default URL)..	[Browser is in use, the current session is not secured]]
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 3.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 3.1.1	[connect to the default URL, "use the existing browser", alpha id. In UCS2]
4	ME → USER	ME displays the alpha identifier "ЗДРАВСТВУЙТЕ"	["Hello" in Russian]
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 3.1.1	[Command performed successfully]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

PROACTIVE COMMAND: LAUNCH BROWSER 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: SIM
        Destination device: ME
        URL   empty
    Alpha Identifier
        Data coding scheme: UCS2 (16 bits)
        Text: "ЗДРАВСТВУЙТЕ"

Coding:

BER-TLV:	D0	26	81	03	01	15	02	82	02	81	82	31
	00	05	19	80	04	17	04	14	04	20	04	10
	04	12	04	21	04	22	04	12	04	23	04	19
	04	22	04	15								

TERMINAL RESPONSE: LAUNCH BROWSER 3.1.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: ME

Destination device: SIM
Result
General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	00

27.22.4.26.3.5   Test Requirement

The ME shall operate in the manner defined in expected sequence 3.1.

27.22.4.26.4   LAUNCH BROWSER (icons support)

27.22.4.26.4.1   Definition and applicability

See clause 3.2.2.

27.22.4.26.4.2   Conformance requirements

The ME shall support the LAUNCH BROWSER Proactive SIM Command as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clauses 6.4.26 and 6.6.26, clause 12.6, clause 12.7, clause 12.48, clause 13.2, clause 12.2, clause 12.47, optional clause 12.49, optional clause 12.50, clause 12.15 and clause 12.31.

27.22.4.26.4.3   Test purpose

To verify that the ME performs a proper user confirmation with an icon identifier, launches the Wap session required in LAUNCH BROWSER and returns a successful result in the TERMINAL RESPONSE command send to the SIM.

27.22.4.26.4.4   Method of test

27.22.4.26.4.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

A valid access to 2 different Wap gateways is required:

- the default Wap parameters (IP address, gateway/proxy identity, called number, URL …) of the tested mobile shall be properly filled to access one of the gateways ("default gateway").

  With that default gateway we shall be able to access to an URL different from the default one.

- another gateway with an IP address different from the one defined in default Wap parameters.

The mobile is busy in a Wap session, the user navigates in pages different from the URL defined by default in Wap parameters.

27.22.4.26.4.4.2   Procedure

Expected Sequence 4.1A (LAUNCH BROWSER, use the existing browser, icon not self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 4.1.1	[Browser is in use, the current session is not secured]]

2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 4.1.1	[connect to the default URL, "use the existing browser", no null alpha id.]
4	ME → USER	ME displays the alpha identifier and the icon	["Not self explan."]
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 4.1.1 A	[Command performed successfully]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

PROACTIVE COMMAND: LAUNCH BROWSER 4.1.1

Logically:

Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
Device identities
        Source device: SIM
        Destination device: ME
        URL   empty
Alpha Identifier   "Not self explan."
Icon identifier:
        Icon qualifier: not self-explanatory
        Icon identifier: record 1 in $EF_{(IMG)}$

Coding:

BER-TLV:	D0	21	81	03	01	15	02	82	02	81	82	31
	00	05	10	4E	6F	74	20	73	65	6C	66	20
	65	78	70	6C	61	6E	2E	1E	02	01	01	

TERMINAL RESPONSE: LAUNCH BROWSER 4.1.1 A

Logically:

Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
Device identities
        Source device: ME
        Destination device: SIM
Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	00

Expected Sequence 4.1B (LAUNCH BROWSER, use the existing browser, icon not self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 4.1.1	[Browser is in use, the current session is not secured]]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 4.1.1	[connect to the default URL, "use the existing browser", no null alpha id.]
4	ME → USER	ME displays the alpha identifier Without the icon	["Not self explan."]
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 4.1.1 B	[Command performed successfully but requested icon could not be displayed]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

TERMINAL RESPONSE: LAUNCH BROWSER 4.1.1 B

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	04

Expected Sequence 4.2A (LAUNCH BROWSER, use the existing browser, icon self explanatory, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 4.2.1	[Browser is in use, the current session is not secured]]
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 4.2.1	[connect to the default URL, "use the existing browser", alpha id. In UCS2]
4	ME → USER	ME displays only the icon	["Self explan."]
5	USER → ME	The user confirms the launch browser.	[user confirmation]

6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 4.2.1 A	[Command performed successfully]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

PROACTIVE COMMAND: LAUNCH BROWSER 4.2.1

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: SIM
        Destination device: ME
        URL   empty
    Alpha Identifier   "Self explan."
    Icon identifier:
        Icon qualifier: self-explanatory
        Icon identifier: record 1 in EF$_{(IMG)}$

Coding:

BER-TLV:	D0	1D	81	03	01	15	02	82	02	81	82	31
	00	05	0C	73	65	6C	66	20	65	78	70	6C
	61	6E	2E	1E	02	00	01					

TERMINAL RESPONSE: LAUNCH BROWSER 4.2.1 A

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	00

Expected Sequence 4.2B (LAUNCH BROWSER, use the existing browser, icon self explanatory, requested icon could not be displayed)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: LAUNCH BROWSER 4.2.1	[Browser is in use, the current session is not secured]]

2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: LAUNCH BROWSER 4.2.1	[connect to the default URL, "use the existing browser", alpha id. In UCS2]
4	ME → USER	ME displays only the alpha identifier	["Self explan."]
5	USER → ME	The user confirms the launch browser.	[user confirmation]
6	ME → SIM	TERMINAL RESPONSE: LAUNCH BROWSER 4.2.1 B	[Command performed successfully] [Command performed successfully but requested icon could not be displayed]
7	ME→SS	The ME does not close the existing session and attempts to connect the default URL.	
8	SIM → ME	PROACTIVE SIM SESSION ENDED	
9	USER → ME	The user verifies that the default URL is connected; and the previous URL can be retrieved. Then he/she ends the navigation with the default URL.	

TERMINAL RESPONSE: LAUNCH BROWSER 4.2.1 B

Logically:

    Command details
        Command number: 1
        Command type: LAUNCH BROWSER
        Command qualifier: use the existing browser
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully but requested icon could not be displayed

Coding:

BER-TLV:	81	03	01	15	02	82	02	82	81	83	01	04

27.22.4.26.3.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.1A to 4.2B.

27.22.4.27 OPEN CHANNEL

27.22.4.27.1 Open Channel (related to CSD)

27.22.4.27.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.27.1.2 Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.27.1.3 Test purpose

To verify that the ME shall send a:

- TERMINAL RESPONSE (OK); or

- TERMINAL RESPONSE (Command performed with modification); or

- TERMINAL RESPONSE (Network currently unable to process command);

to the SIM after the ME receives the OPEN CHANNEL proactive command. The TERMINAL RESPONSE sent back to the SIM is function of the ME and the network capabilities against asked parameters by the SIM.

27.22.4.27.1.4   Method of test

27.22.4.27.1.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.27.1.4.2   Procedure

Expected Sequence 1.1 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.32)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.1.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string   "112233445566778"
    Bearer description
        Bearer type: CSD
        Bearer parameter
            Data rate: 9600bps V.32
            Bearer service: data circuit asynchronous UDI
            Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1

Logically:

```
Command details
    Command number:        1
    Command type:          OPEN CHANNEL
    Command qualifier:     immediate link establishment
Device identities
    Source device:         ME
    Destination device:    SIM
Result
    General Result:        Command performed successfully
Channel status             Channel identifier 1 and link established or PDP context activated
Bearer description
    Bearer type:           CSD
    Bearer parameter
        Data rate:             9600bps V.32
        Bearer service:        data circuit asynchronous
    Connection element: non-transparent
Buffer size                1400 bytes
```

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	07	00	01	B9	02
	05	78										

Expected Sequence 1.2 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.34)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.2.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.2.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.2.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.2.1

Logically:

```
Command details
    Command number:        1
    Command type:          OPEN CHANNEL
    Command qualifier:     immediate link establishment
Device identities
    Source device:         SIM
    Destination device:    ME
Address
    TON:                   International number
    NPI:                   ISDN / telephone numbering plan
    Dialling number string "112233445566778"
Bearer description
    Bearer type:           CSD
    Bearer parameter
        Data rate:             9600bps V.34
        Bearer service:        data circuit asynchronous UDI
```

> Connection element: non-transparent
Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	0C	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Channel status   Channel identifier 1 and link established or PDP context activated
    Bearer description
        Bearer type: CSD
        Bearer parameter
        Data rate: 9600bps V.34
        Bearer service: data circuit asynchronous
        Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	0C	00	01	B9	02
	05	78										

Expected Sequence 1.3 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.120)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.3.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.3.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.3.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.3.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME

Address
    TON: International number
    NPI: ISDN / telephone numbering plan
    Dialling number string   "112233445566778"
Bearer description
    Bearer type: CSD
    Bearer parameter
        Data rate: 9600bps V.120
        Bearer service: data circuit asynchronous UDI
        Connection element: non-transparent
Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	27	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.3.1

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status   Channel identifier 1 and link established or PDP context activated
    Bearer description
    Bearer type: CSD
    Bearer parameter
        Data rate: 9600bps V.120
        Bearer service: data circuit asynchronous
        Connection element: non-transparent
Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	27	00	01	B9	02
	05	78										

Expected Sequence 1.4 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.110 or X.31 flag stuffing, bearer asynchronous UDI)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.4.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.4.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.4.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.4.1

Logically:

> Command details
>> Command number: 1
>> Command type: OPEN CHANNEL
>> Command qualifier: immediate link establishment
> Device identities
>> Source device: SIM
>> Destination device: ME
> Address
>> TON: International number
>> NPI: ISDN / telephone numbering plan
>> Dialling number string "112233445566778"
> Bearer description
>> Bearer type: CSD
>> Bearer parameter
>>> Data rate: 9600bps V.110 or X.31 flag stuffing
>>> Bearer service: data circuit asynchronous UDI
>>> Connection element: non-transparent
> Buffer size 1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	47	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.4.1

Logically:

> Command details
>> Command number: 1
>> Command type: OPEN CHANNEL
>> Command qualifier: immediate link establishment
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Channel status Channel identifier 1 and link established or PDP context activated
> Bearer Description
>> Bearer Parameter
>>> Data rate: 9600bps V.110 or X.31 flag stuffing
>>> Bearer Service: data circuit asynchronous UDI
>>> Connection Element: non-transparent
> Buffer size 1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	47	00	01	B9	02
	05	78										

Expected Sequence 1.5 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.32, bearer asynchronous RDI)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.5.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.5.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.5.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.5.1

Logically:

> Command details
>> Command number: 1
>> Command type: OPEN CHANNEL
>> Command qualifier: immediate link establishment
> Device identities
>> Source device: SIM
>> Destination device: ME
> Address
>> TON: International number
>> NPI: ISDN / telephone numbering plan
>> Dialling number string "112233445566778"
> Bearer description
>> Bearer type: CSD
>> Bearer parameter
>>> Data rate: 9600bps V.32
>>> Bearer service: data circuit asynchronous RDI
>>> Connection element: non-transparent
> Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	04	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.5.1

Logically:

> Command details
>> Command number: 1
>> Command type: OPEN CHANNEL
>> Command qualifier: immediate link establishment
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully
> Channel status   Channel identifier 1 and link established or PDP context activated
> Bearer Description
>> Bearer Parameter
>>> Data rate: 9600bps V.32
>>> Bearer Service: data circuit asynchronous RDI

        Connection Element: non-transparent
Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	07	04	01	B9	02
	05	78										

Expected Sequence 1.6 (OPEN CHANNEL, immediate link establishment, CSD, 9600bps V.32, bearer asynchronous)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.6.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.6.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.6.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.6.1

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Address
    TON: International number
    NPI: ISDN / telephone numbering plan
    Dialling number string   "112233445566778"
Bearer description
    Bearer type: CSD
    Bearer parameter
        Data rate: 9600bps V.32
        Bearer service: data circuit asynchronous
        Connection element: both, transparent preferred
Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	02	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.6.1

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status   Channel identifier 1 and link established or PDP context activated
Bearer Description
    Bearer Parameter
    Data rate: 9600bps V.32
    Bearer Service: data circuit asynchronous
    Connection Element: both, transparent preferred
Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	07	00	02	B9	02
	05	78										

Expected Sequence 1.7(OPEN CHANNEL, immediate link establishment, CSD, 9600 bps, performed with modification)

The system simulator shall be configured such that open channel requests will be accepted with modification

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.7.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.7.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.7.1	[Command performed with modification]

PROACTIVE COMMAND: OPEN CHANNEL 1.7.1

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Address
    TON: International number
    NPI: ISDN / telephone numbering plan
    Dialling number string   "112233445566778"
Bearer description
    Bearer type: CSD
    Bearer parameter
    Data rate: 64000bps X.31
    Bearer service: data circuit asynchronous UDI
    Connection element: non-transparent
Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	54	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.7.1

Logically:

```
Command details
     Command number:        1
     Command type:          OPEN CHANNEL
     Command qualifier:     immediate link establishment
Device identities
     Source device:         ME
     Destination device:    SIM
Result
     General Result:        Command performed with modification
Channel status             Channel identifier 1 and link established or PDP context activated
Bearer description
     Bearer type:           CSD
     Bearer parameter
          Data rate:        9600bps V.32
          Bearer service:   data circuit asynchronous
          Connection element:   non-transparent
Buffer size                1400 bytes
```

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	07
	B8	02	81	00	B5	04	01	07	00	01	B9	02
	05	78										

Expected Sequence 1.8 (OPEN CHANNEL, immediate link establishment, CSD, Network currently unable to process command)

The system simulator shall be configured such that open channel requests will be rejected with "No specific cause can be given".

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.8.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.8.1	
4	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.8.1	[Network currently unable to process command]

PROACTIVE COMMAND: OPEN CHANNEL 1.8.1

Logically:

```
Command details
     Command number:        1
     Command type:          OPEN CHANNEL
     Command qualifier:     immediate link establishment
Device identities
     Source device:         SIM
     Destination device:    ME
Address
     TON:                   International number
```

	NPI:	ISDN / telephone numbering plan
	Dialling number string	"112233445566778"
Bearer description		
	Bearer type:	CSD
	Bearer parameter	
	Data rate:	64000bps X.31
	Bearer service:	data circuit asynchronous UDI
	Connection element:	non-transparent
Buffer size		1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	54	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.8.1

Logically:

	Command details	
	Command number:	1
	Command type:	OPEN CHANNEL
	Command qualifier:	immediate link establishment
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Network currently unable to process command
	Additional info:	No specific cause can be given
Bearer description		
	Bearer type:	CSD
	Bearer parameter	
	Data rate:	64000bps X.31
	Bearer service:	data circuit asynchronous UDI
	Connection element:	non-transparent
Buffer size		1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	02	21
	00	B5	04	01	54	00	01	B9	02	05	78	

Expected Sequence 1.9 (OPEN CHANNEL, immediate link establishment, CSD, No channel available)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.9.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.9.1	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.9.1	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.9.2	
8	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.9.2	[Bearer independent protocol error]

PROACTIVE COMMAND: OPEN CHANNEL 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string "112233445566778"
    Bearer description
        Bearer type: CSD
        Bearer parameter
            Data rate: 56000bps V.120
            Bearer service: data circuit asynchronous UDI
            Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	33	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.9.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Channel status   Channel identifier 1 and link established or PDP context activated
    Bearer description
        Bearer type: CSD
    Bearer parameter
        Data rate: 56000bps V.120
        Bearer service: data circuit asynchronous
        Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	00	B5	04	01	33	00	01	B9	02
	05	78										

PROACTIVE COMMAND: OPEN CHANNEL 1.9.2

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string "112233445566778"
    Bearer description
        Bearer type: CSD
        Bearer parameter
           Data rate: 56000bps V.120
           Bearer service: data circuit asynchronous UDI
           Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	33	00	01	B9	02	05	78				

TERMINAL RESPONSE: OPEN CHANNEL 1.9.2

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Bearer Independent Protocol error
        Additional info: No channel available

    Bearer description
        Bearer type: CSD
        Bearer parameter
           Data rate: 56000bps V.120
           Bearer service: data circuit asynchronous UDI
           Connection element: non-transparent
    Buffer size   1400 bytes

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	02	3A
	01	B5	04	01	33	00	01	B9	02	05	78	

Expected Sequence 1.10 (OPEN CHANNEL, ME is busy on another call related to CSD)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP CALL 1.10.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.10.1	
4	ME → USER	ME displays "Not busy" and prompts the user to set up a call to "+012340123456p1p2"	
5	USER → ME	The user confirms the call set up	[user confirmation]
6	ME→SS	The ME attempts to set up a call to "+012340123456p1p2"	
7	SS → ME	The ME receives the CONNECT message from the system simulator.	
8	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.10.1	[Command performed successfully]
9	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1	
10	ME → SIM	FETCH	
11	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.1.1	
12	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL (immediate) 1.10.1	[ME currently unable to process command]

PROACTIVE COMMAND: SET UP CALL 1.10.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Not busy"
    Address
        TON: International
        NPI: ISDN / telephone numbering plan
        Dialling number string   "012340123456p1p2"

Coding:

BER-TLV:	D0	1E	81	03	01	10	00	82	02	81	83	85
	08	4E	6F	74	20	62	75	73	79	86	09	91
	10	32	04	21	43	65	1C	2C				

TERMINAL RESPONSE: SET UP CALL 1.10.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

TERMINAL RESPONSE: OPEN CHANNEL 1.10.1

Logically:

```
Command details
        Command number:        1
        Command type:          OPEN CHANNEL
        Command qualifier:     immediate link establishment
Device identities
        Source device:         ME
        Destination device:    SIM
Result
        General Result:        ME currently unable to process command
        Additional info:       ME currently busy on call

Bearer description
        Bearer type:           CSD
        Bearer parameter
          Data rate:           9600bps V.32
          Bearer service:      data circuit asynchronous UDI
          Connection element:  non-transparent
Buffer size            1400 bytes
```

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	02	20
	02	B5	04	01	07	00	01	B9	02	05	78	

27.22.4.27.2   Open Channel (related to GPRS)

27.22.4.27.2.2   Definition and applicability

See clause 3.2.2.

27.22.4.27.2.2   Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.27.2.3   Test purpose

27.22.4.27.2.4   Method of test

27.22.4.27.2.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address   01.01.01.01

27.22.4.27.2.4.2 Procedure

Expected Sequence 2.1 (OPEN CHANNEL, immediate link establishment, GPRS, no local address, no alpha identifier, no network access name)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.1.1	
4	ME → user	The ME may display channel opening information	
5	ME → SS	SETUP CALL	
6	SS → ME	CONNECTED	
7	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment

    Device identities
        Source device: SIM
        Destination device: ME

    Bearer
        Bearer type: GPRS
        Bearer parameter:
            Precedence Class: 02
                     Delay Class: 04
                     Reliability Class: 05

Peak throughput class: 05
Mean throughput class: 16
Packet data protocol: 02 (IP)

Buffer
     Buffer size:	1400

Text String:	UserLog (User login)
Text String:	UserPwd (User password)

SIM/ME interface transport level
     Transport format:	UDP
     Port number:	44444

Data destination address	01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	05	78
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 2.1.1

Logically:

Command details
     Command number:	1
     Command type:	OPEN CHANNEL
     Command qualifier:	immediate link establishment

Device identities
     Source device:	ME
     Destination device:	SIM

Result
General Result:	Command performed successfully
     Channel status	Channel identifier 1 and link established or PDP context activated

Bearer description
     Bearer type:	GPRS
     Bearer parameter:
          Precedence Class: 02
          Delay Class:	04
          Reliability Class: 05
          Peak throughput class:	05
          Mean throughput class:	16
          Packet data protocol: 02 (IP)

Buffer
     Buffer size:	1400

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	05	78							

Expected Sequence 2.2 (OPEN CHANNEL, immediate link establishment GPRS, no alpha identifier, with network access name)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.2.1	
4	ME → user	The ME may display channel opening information	
5	ME → SS	SETUP CALL	
6	SS → ME	CONNECTED	
7	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.2.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 2.2.1

Logically:

    Command details
            Command number: 1
            Command type: OPEN CHANNEL
            Command qualifier: immediate link establishment
    Device identities
            Source device: SIM
            Destination device: ME
    Bearer
            Bearer type: GPRS
            Bearer parameter:
                Precedence Class: 02
                Delay Class: 04
                Reliability Class: 05
                Peak throughput class: 05
                Mean throughput class: 16
                Packet data protocol: 02 (IP)
    Buffer
            Buffer size: 1400
    Network access name: .TestGp.rs
    Text String: UserLog (User login)
    Text String: UserPwd (User password)
    SIM/ME interface transport level
            Transport format: UDP
            Port number: 44444
    Data destination address 01.01.01.01

Coding:

BER-TLV:	D0	42	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	05	78
	47	0A	06	54	65	73	74	47	70	02	72	73
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 2.2.1

Logically:

    Command details

Command number: 1
Command type: OPEN CHANNEL
Command qualifier: immediate link establishment
Device identities
Source device: ME
Destination device: SIM
Result
General Result: Command performed successfully
Channel status   Channel identifier 1 and link established or PDP context activated
Bearer Description:
Bearer Type: GPRS
Bearer parameter:
Precedence Class: 02
Delay Class: 04
Reliability Class: 05
Peak throughput class: 05
Mean throughput class: 16
Packet data protocol: 02 (IP)
Buffer
Buffer size   1400

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	05	78							

Expected Sequence 2.3 (OPEN CHANNEL, immediate link establishment, GPRS, with alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.3.1	
4	ME → user	Confirmation phase with alpha ID	"Open ID"
5	user → ME	The user confirms	
6	ME → SS	SETUP CALL	
7	SS → ME	CONNECTED	
8	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 2.3.1

Logically:

Command details
Command number: 1
Command type: OPEN CHANNEL
Command qualifier: immediate link establishment
Device identities
Source device: SIM
Destination device: ME
Alpha Identifier   Open ID
Bearer
Bearer type: GPRS
Bearer parameter:
Precedence Class: 02
Delay Class: 04
Reliability Class: 05
Peak throughput class: 05
Mean throughput class: 16
Packet data protocol: 02 (IP)

Buffer

Buffer size:	1400
Network access name:	.TestGp.rs
Text String:	UserLog (User login)
Text String:	UserPwd (User password)
SIM/ME interface transport level	
Transport format:	UDP
Port number:	44444
Data destination address	01.01.01.01

Coding:

BER-TLV:	D0	4B	81	03	01	40	01	82	02	81	82	05
	07	4F	70	65	6E	20	49	44	35	07	02	02
	04	05	05	10	02	39	02	05	78	47	0A	06
	54	65	73	74	47	70	02	72	73	0D	08	F4
	55	73	65	72	4C	6F	67	0D	08	F4	55	73
	65	72	50	77	64	3C	03	01	AD	9C	3E	05
	21	01	01	01	01							

Expected Sequence 2.4 (OPEN CHANNEL, immediate link establishment, GPRS, with null alpha identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.4.1	
4	ME → user	Confirmation phase	[The ME should not give any information]
5	user → ME	The user confirms	[Only if the ME asks for user confirmation]
6	ME → SS	SETUP CALL	
7	SS → ME	CONNECTED	
8	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 2.4.1

Logically:

```
Command details
        Command number:       1
        Command type:         OPEN CHANNEL
        Command qualifier:    immediate link establishment
Device identities
        Source device:        ME
        Destination device:   SIM
Alpha Identifier        Null
Bearer
        Bearer type:          GPRS
        Bearer parameter:
            Precedence Class:  02
            Delay Class:       04
            Reliability Class: 05
            Peak throughput class:     05
            Mean throughput class:     16
            Packet data protocol:   02 (IP)
Buffer
        Buffer size:          1400
Network access name:    .  TestGp.rs
Other Address
        Length:               00
Text String:            UserLog  (User login)
Text String:            UserPwd (User password)
SIM/ME interface transport level
        Transport format:     UDP
        Port number:          44444
Data destination address 01.01.01.01
```

Coding:

BER-TLV:	D0	46	81	03	01	40	01	82	02	81	82	05
	00	35	07	02	02	04	05	05	10	02	39	02
	05	78	47	0A	06	54	65	73	74	47	70	02
	6F	67	3E	00	0D	08	F4	55	73	65	72	4C
	6F	67	0D	08	F4	55	73	65	72	50	77	64
	3C	03	01	AD	9C	3E	05	21	01	01	01	01

Expected Sequence 2.5 (OPEN CHANNEL, immediate link establishment, GPRS, command performed with modifications (buffer size))

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.5.1	
4	ME → user	The ME may display channel opening information	
5	ME → SS	SETUP CALL	
6	SS → ME	CONNECTED	
7	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.5.1	[Command performed with modification]

PROACTIVE COMMAND: OPEN CHANNEL 2.5.1

Logically:

    Command details
            Command number: 1
            Command type: OPEN CHANNEL
            Command qualifier: immediate link establishment
    Device identities
            Source device: ME
            Destination device: SIM
    Bearer
            Bearer type: GPRS
            Bearer parameter:
                    Precedence Class: 02
                    Delay Class: 04
                    Reliability Class: 05
                    Peak throughput class: 05
                    Mean throughput class: 16
                    Packet data protocol: 02 (IP)
    Buffer
            Buffer size: 2000
    Network access name: .TestGp.rs
    Text String: UserLog (User login)
    Text String: UserPwd (User password)

    SIM/ME interface transport level
        Transport format: UDP
        Port number: 44444
    Data destination address   01.01.01.01

Coding:

BER-TLV:	D0	42	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	07	D0
	47	0A	06	54	65	73	74	47	70	02	72	73
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL SEQUENCE: OPEN CHANNEL 2.5.1

Logically:

```
Command details
       Command number:        1
       Command type:          OPEN CHANNEL
       Command qualifier:     immediate link establishment
Device identities
       Source device:         ME
       Destination device:    SIM
Result
       General Result:        Command performed with modifications (07)
Channel status                Channel identifier 1 and link established or PDP context activated
Bearer description
       Bearer type:           GPRS
       Bearer parameter:
              Precedence Class: 02
              Delay Class:      04
              Reliability Class:   05
              Peak throughput class:     05
              Mean throughput class:     16
              Packet data protocol:   02 (IP)
Buffer
       Buffer size:           1400
```

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	07
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	05	78							

Expected Sequence 2.6 Void

Expected Sequence 2.7 (OPEN CHANNEL, immediate link establishment, GPRS, open command with alpha identifier, User did not accept the proactive command)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.7.1	
4	ME → user	Confirmation phase with alpha ID	[The ME shall display "Open ID"]
5	user → ME	The user rejects	
6	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.7.1	[User did not accept the proactive command]

PROACTIVE COMMAND: OPEN CHANNEL 2.7.1

Logically:

```
Command details
       Command number:        1
       Command type:          OPEN CHANNEL
       Command qualifier:     immediate link establishment
Device identities
       Source device:         SIM
       Destination device:    ME
Alpha Identifier               "Open ID"
Bearer
```

Bearer type: GPRS
Bearer parameter:
    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1400
Text String: UserLog (User login)
Text String: UserPwd (User password)
SIM/ME interface transport level
    Transport format: UDP
    Port number: 44444
Data destination address 01.01.01.01

Coding:

BER-TLV:	D0	3F	81	03	01	40	01	82	02	81	82	05
	07	4F	70	65	6E	20	49	44	35	07	02	02
	04	05	05	10	02	39	02	05	78	0D	08	F4
	55	73	65	72	4C	6F	67	0D	08	F4	55	73
	65	72	50	77	64	3C	03	01	AD	9C	3E	05
	21	01	01	01	01							

TERMINAL RESPONSE: OPEN CHANNEL 2.7.1

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: User did not accept the proactive command
Bearer description
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1400

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	22
	35	07	02	02	04	05	05	10	02	39	02	05
	78											

Expected Sequence 2.8 (OPEN CHANNEL, immediate link establishment, GPRS, ME busy on call)

Step	Direction	MESSAGE / Action	Comments
1	User → ME	Set up a call	
2	ME → SS	SETUP CALL	
3	SS → ME	CONNECTED	
4	SIM → ME	PROACTIVE COMMAND PENDING	
5	ME → SIM	FETCH	
6	SIM → ME	PROACTIVE COMMAND : OPEN CHANNEL 2.8.1	
7	ME → SIM	TERMINAL RESPONSE : OPEN CHANNEL 2.8.1	[ME busy on call]

PROACTIVE COMMAND: OPEN CHANNEL 2.8.1

    Logically:
    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Bearer
        Bearer type: GPRS
        Bearer parameter:
            Precedence Class: 02
            Delay Class: 04
            Reliability Class: 05
            Peak throughput class: 05
            Mean throughput class: 16
            Packet data protocol: 02 (IP)
    Buffer
        Buffer size: 1400
    Text String: UserLog (User login)
    Text String: UserPwd (User password)
    SIM/ME interface transport level
        Transport format: UDP
        Port number: 44444
    Data destination address   01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	05	78
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 2.8.1

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment

ETSI

Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: ME currently unable to process command
    Additional info: ME busy on call
Bearer
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1400

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	02	20
	02	35	07	02	02	04	05	05	10	02	39	02
	05	78										

27.22.4.27.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.10 and 2.1 to 2.8.

27.22.4.28 CLOSE CHANNEL

27.22.4.28.1 Definition and applicability

See clause 3.2.2.

27.22.4.28.2 Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.28.3 Test purpose

To verify that the ME shall send a:

- TERMINAL RESPONSE (Command Performed Successfully); or

- TERMINAL RESPONSE (Bearer Independent Protocol Error);

to the SIM after the ME receives the CLOSE CHANNEL proactive command. The TERMINAL RESPONSE sent back to the SIM is function of the ME and the network capabilities against asked parameters by the SIM.

27.22.4.28.4 Method of Test

27.22.4.28.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address 01.01.01.01

27.22.4.28.4.2   Procedure

Expected sequence 1.1 (CLOSE CHANNEL, successful)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1 A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: CLOSE CHANNEL 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: CLOSE CHANNEL 1.1.1	
10	ME → SS	DISCONNECT	[MO DISCONNECT]
11	ME → SIM	TERMINAL RESPONSE CLOSE CHANNEL 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string   "112233445566778"
    Bearer description
        Bearer type: CSD
        Bearer parameter
            Data rate: 9600bps V.32
            Bearer service: data circuit asynchronous UDI
            Connection element: non-transparent
    Buffer size   1000

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	03	E8				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status Channel identifier 1 and link established
Bearer description
    Bearer type: CSD
    Bearer parameter
      Data rate: 9600bps V.32
      Bearer service: data circuit asynchronous
      Connection element: non-transparent
Buffer size 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	01	B5	04	01	07	00	01	B9	02
	03	E8										

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Bearer
    Bearer type: GPRS
    Bearer parameter:
      Precedence Class: 02
      Delay Class: 04
      Reliability Class: 05
      Peak throughput class: 05
      Mean throughput class: 16
      Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1000
Text String: UserLog (User login)
Text String: UserPwd (User password)
SIM/ME interface transport level
    Transport format: UDP
    Port number: 44444
Data destination address 01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	03	E8
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Channel status   Channel identifier 1 and link established or PDP context activated
    Bearer description
        Bearer type: GPRS
        Bearer parameter:
            Precedence Class: 02
            Delay Class: 04
            Reliability Class: 05
            Peak throughput class: 05
            Mean throughput class: 16
            Packet data protocol: 02 (IP)
    Buffer
        Buffer size: 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	03	E8							

PROACTIVE COMMAND: CLOSE CHANNEL 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: CLOSE CHANNEL
        Command qualifier: RFU
    Device identities
        Source device: SIM
        Destination device: Channel 1

Coding:

BER-TLV:	D0	09	81	03	01	41	00	82	02	81	21

TERMINAL RESPONSE: CLOSE CHANNEL 1.1.1

Logically:

> Command details
>> Command number: 1
>> Command type: CLOSE CHANNEL
>> Command qualifier: RFU
> Device identities
>> Source device: ME
>> Destination device: SIM
> Result
>> General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	41	00	82	02	82	81	83	01	00

Expected sequence 1.2 (CLOSE CHANNEL, with an invalid channel identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: CLOSE CHANNEL 1.2.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: CLOSE CHANNEL 1.2.1	
10	ME → SIM	TERMINAL RESPONSE CLOSE CHANNEL 1.2.1	[Invalid channel number]

PROACTIVE COMMAND: CLOSE CHANNEL 1.2.1

Logically:

> Command details
>> Command number: 1
>> Command type: CLOSE CHANNEL
>> Command qualifier: RFU
> Device identities
>> Source device: SIM
>> Destination device: Channel 2

Coding:

BER-TLV:	D0	09	81	03	01	41	00	82	02	81	22

TERMINAL RESPONSE: CLOSE CHANNEL 1.2.1

Logically:

Command details
    Command number: 1
    Command type: CLOSE CHANNEL
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Bearer Independent Protocol error
    Additional Result: Channel identifier not valid

Coding:

BER-TLV:	81	03	01	41	00	82	02	82	81	83	02	3A
	03											

Expected sequence 1.3 (CLOSE CHANNEL, on an already closed channel)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: CLOSE CHANNEL 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: CLOSE CHANNEL 1.1.1	
10	ME → SS	DISCONNECT	[MO DISCONNECT]
11	ME → SIM	TERMINAL RESPONSE CLOSE CHANNEL 1.1.1	[Command performed successfully]
12	SIM → ME	PROACTIVE COMMAND PENDING: CLOSE CHANNEL 1.3.1	
13	ME → SIM	FETCH	
14	SIM → ME	PROACTIVE COMMAND: CLOSE CHANNEL 1.3.1	
15	ME → SIM	TERMINAL RESPONSE CLOSE CHANNEL 1.3.1	[Channel closed]

PROACTIVE COMMAND: CLOSE CHANNEL 1.3.1

Logically:

Command details
    Command number: 1
    Command type: CLOSE CHANNEL
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: Channel 1

Coding:

BER-TLV:	D0	09	81	03	01	41	00	82	02	81	21

TERMINAL RESPONSE: CLOSE CHANNEL 1.3.1

Logically:

Command details
    Command number: 1
    Command type: CLOSE CHANNEL
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Bearer Independent Protocol error
    Additional Result: Channel closed

Coding:

BER-TLV:	81	03	01	41	00	82	02	82	81	83	02	3A
	02											

27.22.4.28.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.4.29 RECEIVE DATA

27.22.4.29.1 Definition and applicability

See clause 3.2.2.

27.22.4.29.2 Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.29.3 Test purpose

To verify that the ME shall send a:

- TERMINAL RESPONSE (Command Performed Successfully); or

- TERMINAL RESPONSE (ME currently unable to process command); or

- TERMINAL RESPONSE (Bearer Independent Protocol Error);

to the SIM after the ME receives the RECEIVE DATA proactive command. The TERMINAL RESPONSE sent back to the SIM is function of the ME and the network capabilities against asked parameters by the SIM.

27.22.4.29.4 Method of test

27.22.4.29.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address 01.01.01.01

27.22.4.29.4.2   Procedure

Expected sequence 1.1 (RECEIVE DATA, already opened channel)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1 PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL (immediate) 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
8	ME → SS	SETUP CALL	
9	SS → ME	CONNECTED	
10	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
11	SS → ME	Transfer of 1kB data to the ME through channel 1	
12	ME → SIM	ENVELOPE (Data Available)	(1 kB of data in the ME buffer)
13	SIM → ME	PROACTIVE COMMAND PENDING: RECEIVE DATA 1.1.1	
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: RECEIVE DATA 1.1.1	200 Bytes
16	ME → SIM	TERMINAL RESPONSE: RECEIVE DATA 1.1.1	
17	SIM → ME	PROACTIVE COMMAND PENDING: RECEIVE DATA 1.1.2	
18	ME → SIM	FETCH	
19	SIM → ME	PROACTIVE COMMAND: RECEIVE DATA 1.1.2	200 Bytes
20	ME → SIM	TERMINAL RESPONSE: RECEIVE DATA 1.1.2	
21	SIM → ME	PROACTIVE COMMAND PENDING: RECEIVE DATA 1.1.3	
22	ME → SIM	FETCH	
23	SIM → ME	PROACTIVE COMMAND: RECEIVE DATA 1.1.3	200 Bytes
24	ME → SIM	TERMINAL RESPONSE: RECEIVE DATA 1.1.3	
25	SIM → ME	PROACTIVE COMMAND PENDING: RECEIVE DATA 1.1.4	
26	ME → SIM	FETCH	
27	SIM → ME	PROACTIVE COMMAND: RECEIVE DATA 1.1.4	200 Bytes
28	ME → SIM	TERMINAL RESPONSE: RECEIVE DATA 1.1.4	
29	SIM → ME	PROACTIVE COMMAND PENDING: RECEIVE DATA 1.1.5	
30	ME → SIM	FETCH	
31	SIM → ME	PROACTIVE COMMAND: RECEIVE DATA 1.1.5	200 Bytes
32	ME → SIM	TERMINAL RESPONSE: RECEIVE DATA 1.1.5	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: RFU

Device identities
    Source device: SIM
    Destination device: ME
Event list   Data available

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	09										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP EVENT LIST
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Address
    TON: International number
    NPI: ISDN / telephone numbering plan
    Dialling number string   "112233445566778"
Bearer description
    Bearer type: CSD
Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous UDI
    Connection element: non-transparent
Buffer size   1000

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	03	E8				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A

Logically:

  Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
  Device identities
    Source device: ME
    Destination device: SIM
  Result
    General Result: Command performed successfully
  Channel status   Channel identifier 1 and link established
  Bearer description
    Bearer type: CSD
  Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous
    Connection element: non-transparent
  Buffer size   1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	01	B5	04	01	07	00	01	B9	02
	03	E8										

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B

Logically:

  Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
  Device identities
    Source device: SIM
    Destination device: ME
  Bearer
    Bearer type: GPRS
    Bearer parameter:
      Precedence Class: 02
      Delay Class: 04
      Reliability Class: 05
      Peak throughput class: 05
      Mean throughput class: 16
      Packet data protocol: 02 (IP)
  Buffer
    Buffer size: 1000
  Text String: UserLog (User login)
  Text String: UserPwd (User password)
  SIM/ME interface transport level
    Transport format: UDP
    Port number: 44444
  Data destination address 01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	03	E8
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B

Logically:

Command details
Command number: 1
Command type: OPEN CHANNEL
Command qualifier: immediate link establishment
Device identities
Source device: ME
Destination device: SIM
Result
General Result: Command performed successfully
Channel status   Channel identifier 1 and link established or PDP context activated
Bearer description
Bearer type: GPRS
Bearer parameter:
Precedence Class: 02
Delay Class: 04
Reliability Class: 05
Peak throughput class: 05
Mean throughput class: 16
Packet data protocol: 02 (IP)
Buffer
Buffer size: 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	03	E8							

PROACTIVE COMMAND: RECEIVE DATA 1.1.1

Logically:

Command details
Command number: 1
Command type: RECEIVE DATA
Command qualifier: RFU
Device identities
Source device: SIM
Destination device: Channel 1
Channel Data Length
Channel Data Length: 200

Coding:

BER-TLV:	D0	0C	81	03	01	42	00	82	02	81	21	B7
	01	C8										

PROACTIVE COMMAND: RECEIVE DATA 1.1.2

Logically:

Command details
  Command number: 2
  Command type: RECEIVE DATA
  Command qualifier: RFU
Device identities
  Source device: SIM
  Destination device: Channel 1
Channel Data Length
  Channel Data Length: 200

Coding:

BER-TLV:	D0	0C	81	03	02	42	00	82	02	81	21	B7
	01	C8										

PROACTIVE COMMAND: RECEIVE DATA 1.1.3

Logically:

Command details
  Command number: 3
  Command type: RECEIVE DATA
  Command qualifier: RFU
Device identities
  Source device: SIM
  Destination device: Channel 1
Channel Data Length
  Channel Data Length: 200

Coding:

BER-TLV:	D0	0C	81	03	03	42	00	82	02	81	21	B7
	01	C8										

PROACTIVE COMMAND: RECEIVE DATA 1.1.4

Logically:

Command details
  Command number: 4
  Command type: RECEIVE DATA
  Command qualifier: RFU
Device identities
  Source device: SIM
  Destination device: Channel 1
Channel Data Length
  Channel Data Length: 200

Coding:

BER-TLV:	D0	0C	81	03	04	42	00	82	02	81	21	B7
	01	C8										

PROACTIVE COMMAND: RECEIVE DATA 1.1.5

Logically:

Command details
    Command number: 5
    Command type: RECEIVE DATA
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: Channel 1
Channel Data Length
    Channel Data Length: 200

Coding:

BER-TLV:	D0	0C	81	03	05	42	00	82	02	81	21	B7
	01	C8										

TERMINAL RESPONSE: RECEIVE DATA 1.1.1

Logically:

Command details
    Command number: 1
    Command type: RECEIVE DATA
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel Data :   00 01 02 .. C7 (200 Bytes of data)
Channel data length: FF

Coding:

BER-TLV:	81	03	01	42	00	82	02	82	81	83	01	00
	B6	C8	00	01	02	..	C7	B7	01	FF		

TERMINAL RESPONSE: RECEIVE DATA 1.1.2

Logically:

Command details
    Command number: 2
    Command type: RECEIVE DATA
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel Data :   C8 C9 CA .. FF 00 01 .. 8F (200 Bytes of data)
Channel data length: FF

Coding:

BER-TLV:	81	03	02	42	00	82	02	82	81	83	01	00
	B6	C8	C8	C9	CA	..	FF	00	01	02	..	8F
	B7	01	FF									

TERMINAL RESPONSE: RECEIVE DATA 1.1.3

Logically:

    Command details
            Command number: 3
            Command type: RECEIVE DATA
            Command qualifier: RFU
    Device identities
            Source device: ME
            Destination device: SIM
    Result
            General Result: Command performed successfully
    Channel Data :   90 91 .. FF 00 01 – 57 (200 Bytes of data)
    Channel data length: FF

Coding:

BER-TLV:	81	03	03	42	00	82	02	82	81	83	01	00
	B6	C8	91	91	92	..	FF	00	01	02	..	57
	B7	01	FF									

TERMINAL RESPONSE: RECEIVE DATA 1.1.4

Logically:

    Command details
            Command number: 4
            Command type: RECEIVE DATA
            Command qualifier: RFUDevice identities
            Source device: ME
            Destination device: SIM
    Result
            General Result: Command performed successfully
    Channel Data :   58 59 .. FF 00 01 .. 1F (200 Bytes of data)
    Channel data length: C8

Coding:

BER-TLV:	81	03	04	42	00	82	02	82	81	83	01	00
	B6	C8	58	59	5A	..	FF	00	01	02	..	1F
	B7	01	C8									

TERMINAL RESPONSE: RECEIVE DATA 1.1.5

Logically:

    Command details
            Command number: 5
            Command type: RECEIVE DATA
            Command qualifier: RFUDevice identities
            Source device: ME
            Destination device: SIM
    Result
            General Result: Command performed successfully
    Channel Data: 20 21 .. E7 (200 Bytes of data)
    Channel data length: 00

Coding:

BER-TLV:	81	03	01	42	00	82	02	82	81	83	01	00
	B6	C8	20	21	22	..	E7	B7	01	00		

27.22.4.29.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.4.30 SEND DATA

27.22.4.30.1 Definition and applicability

See clause 3.2.2.

27.22.4.30.2 Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.30.3 Test purpose

To verify that the ME shall send a:

- TERMINAL RESPONSE (Command Performed Successfully); or

- TERMINAL RESPONSE (ME currently unable to process command); or

- TERMINAL RESPONSE (Bearer Independent Protocol Error);

to the SIM after the ME receives the SEND DATA proactive command. The TERMINAL RESPONSE sent back to the SIM is function of the ME and the network capabilities against asked parameters by the SIM.

27.22.4.30.4 Method of test

27.22.4.30.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

```
Precedence Class:      02
Delay Class:        04
Reliability Class:     05
Peak throughput class:     05
Mean throughput class:  16
Packet data protocol:   02 (IP)
```

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address 01.01.01.01

27.22.4.30.4.2   Procedure

Expected sequence 1.1 (SEND DATA, immediate mode)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1 A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.1.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.1.1	
10	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string "112233445566778"
    Bearer description

<table>
<tr><td>Bearer type:</td><td>CSD</td></tr>
</table>

Bearer type: CSD
Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous UDI
    Connection element: non-transparent
Buffer size   1000

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	03	E8				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status   Channel identifier 1 and link established
Bearer description
    Bearer type: CSD
Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous
    Connection element: non-transparent
Buffer size   1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	01	B5	04	01	07	00	01	B9	02
	03	E8										

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Bearer
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)

Buffer
    Buffer size: 1000
Text String: UserLog (User login)
Text String: UserPwd (User password)
SIM/ME interface transport level
    Transport format: UDP
    Port number: 44444
Data destination address   01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	03	E8
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status   Channel identifier 1 and link established or PDP context activated
Bearer description
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	03	E8							

PROACTIVE COMMAND: SEND DATA 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities

Source device: SIM
Destination device: Channel 1
Channel Data
Channel Data: 00 01 .. 07 (8 Bytes of data)

Coding:

BER-TLV:	D0	13	81	03	01	43	01	82	02	81	21	B6
	08	00	01	02	03	04	05	06	07			

TERMINAL RESPONSE: SEND DATA 1.1.1

Logically:

Command details
Command number: 1
Command type: SEND DATA
Command qualifier: Send Immediately
Device identities
Source device: ME
Destination device: SIM
Result
General Result: Command performed successfully
Channel data length: 8 Bytes

Coding:

BER-TLV:	81	03	01	43	01	82	02	82	81	83	01	00
	B7	01	08									

Expected sequence 1.2 (SEND DATA, Store mode)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.2.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.2.1	Send 500 Bytes of data (200 + 200 + 100)
10	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.2.1	[Command performed successfully]
11	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.2.2	
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.2.2	
14	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.2.2	[Command performed successfully]
15	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.2.3	
16	ME → SIM	FETCH	
17	SIM → ME	PROACTIVE COMMAND: SEND DATA (Immediate mode) 1.2.3	
18	ME → SIM	TERMINAL RESPONSE: SEND DATA (Immediate mode) 1.2.3	[Command performed successfully]

PROACTIVE COMMAND: SEND DATA 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND DATA
        Command qualifier: Store mode
    Device identities
        Source device: SIM
        Destination device: Channel 1
    Channel Data
        Channel Data :   00 01 .. C7 (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	00	01	..	C7					

TERMINAL RESPONSE: SEND DATA 1.2.1

Logically:

    Command details
        Command number: 1
        Command type: SEND DATA

Command qualifier: Store mode
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Channel data length: More than 255 bytes of space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	00	82	02	82	81	83	01	00
	B7	01	FF									

PROACTIVE COMMAND: SEND DATA 1.2.2

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Store mode
Device identities
    Source device: SIM
    Destination device: Channel 1
Channel Data
    Channel Data :   C8 C9 .. FF 00 01 .. 8F (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	C8	C9	..	FF	00	01	..	8F	

TERMINAL RESPONSE: SEND DATA 1.2.2

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Store mode
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Channel data length: More than 255 bytes of space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	00	82	02	82	81	83	01	00
	B7	01	FF									

PROACTIVE COMMAND: SEND DATA 1.2.3

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Immediate mode
Device identities

Source device: SIM
Destination device: Channel 1
Channel Data
Channel Data : 90 91 .. F3 (100 Bytes of data)

Coding:

BER-TLV:	D0	6F	81	03	01	43	01	82	02	81	21	B6
	64	90	91	..	F3							

TERMINAL RESPONSE: SEND DATA 1.2.3

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Immediate mode
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Channel data length: More than 255 bytes of space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	01	82	02	82	81	83	01	00
	B7	01	FF									

Expected sequence 1.3 (SEND DATA, Store mode, Tx buffer fully used)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1 A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1 A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.1	Send 1kByte of data by packet of 200 Bytes
10	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.1	[Command performed successfully]
11	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.2	
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.2	[200 Bytes]
14	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.2	[Command performed successfully]
15	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.3	
16	ME → SIM	FETCH	
17	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.3	[200 Bytes]
18	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.3	[Command performed successfully]
19	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.4	
20	ME → SIM	FETCH	
21	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.4	[200 Bytes]
22	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.4	[Command performed successfully]
23	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.5	
24	ME → SIM	FETCH	
25	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.3.5	[200 Bytes]
26	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.3.5	[Command performed successfully]

PROACTIVE COMMAND: SEND DATA 1.3.1

Logically:

    Command details
            Command number: 1
            Command type: SEND DATA
            Command qualifier: Store mode
    Device identities
            Source device: SIM
            Destination device: Channel 1
    Channel Data
            Channel Data :   00 01 02 .. C7 (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	00	01	02	...	C7				

TERMINAL RESPONSE: SEND DATA 1.3.1

Logically:

```
Command details
      Command number:      1
      Command type:        SEND DATA
      Command qualifier:   Store mode
Device identities
      Source device:       ME
      Destination device:  SIM
Result
      General Result:      Command performed successfully
      Channel data length: More than 255 bytes of space available in the Tx buffer
```

Coding:

BER-TLV:	81	03	01	43	00	82	02	82	81	83	01	00
	B7	01	FF									

PROACTIVE COMMAND: SEND DATA 1.3.2

Logically:

```
Command details
      Command number:      1
      Command type:        SEND DATA
      Command qualifier:   Store mode
Device identities
      Source device:       SIM
      Destination device:  Channel 1
Channel Data
      Channel Data :       C8 C9 CA .. FF 00 01 .. 8F (200 Bytes of data)
```

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	C8	C9	CA	...	FF	00	02	..	8F

TERMINAL RESPONSE: SEND DATA 1.3.2

Logically:

```
Command details
      Command number:      1
      Command type:        SEND DATA
      Command qualifier:   Store mode
Device identities
      Source device:       ME
      Destination device:  SIM
Result
      General Result:      Command performed successfully
      Channel data length: More than 255 bytes of space available in the Tx buffer
```

Coding:

BER-TLV:	81	03	01	43	00	82	02	21	82	83	01	00
	B7	01	FF									

PROACTIVE COMMAND: SEND DATA 1.3.3

Logically:

    Command details
        Command number: 1
        Command type: SEND DATA
        Command qualifier: Store mode
    Device identities
        Source device: SIM
        Destination device: Channel 1
    Channel Data
        Channel Data :   90 91 .. FF 00 01 .. 57 (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	90	91	..	FF	00	01	..	57	

TERMINAL RESPONSE: SEND DATA 1.3.3

Logically:

    Command details
        Command number: 1
        Command type: SEND DATA
        Command qualifier: Store mode
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
        Channel data length: More than 255 bytes of space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	00	82	02	82	81	83	01	00
	B7	01	FF									

PROACTIVE COMMAND: SEND DATA 1.3.4

Logically:

    Command details
        Command number: 1
        Command type: SEND DATA
        Command qualifier: Store mode
    Device identities
        Source device: SIM
        Destination device: Channel 1
    Channel Data
        Channel Data :   58 59 .. FF 00 01 .. 1F (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	00	82	02	81	21
	B6	81	C8	58	59	..	FF	00	01	..	1F	

TERMINAL RESPONSE: SEND DATA 1.3.4

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Store mode
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Channel data length: 200 bytes of space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	00	82	02	82	81	83	01	00
	B7	01	C8									

PROACTIVE COMMAND: SEND DATA 1.3.5

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities
    Source device: SIM
    Destination device: Channel 1
Channel Data
    Channel Data: 20 21 .. E7 (200 Bytes of data)

Coding:

BER-TLV:	D0	81	D4	81	03	01	43	01	82	02	81	21
	B6	81	C8	20	21	..	E7					

TERMINAL RESPONSE: SEND DATA 1.3.5

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
    Channel data length: No space available in the Tx buffer

Coding:

BER-TLV:	81	03	01	43	01	82	02	82	81	83	01	00
	B7	01	00									

Expected sequence 1.4 (SEND DATA, 2 consecutive SEND DATA Store mode)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.1	Send 1kByte of data by packet of 200 Bytes
10	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.1	[Command performed successfully]
11	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.2	
12	ME → SIM	FETCH	
13	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.2	[200 Bytes]
14	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.2	[Command performed successfully]
15	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.3	
16	ME → SIM	FETCH	
17	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.3	[200 Bytes]
18	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.3	[Command performed successfully]
19	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.4	
20	ME → SIM	FETCH	
21	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.4	[200 Bytes]
22	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.4	[Command performed successfully]
23	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.5	…
24	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.3.5	
25	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.3.5	[Command performed successfully]
26	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.1	
27	ME → SIM	FETCH	
28	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.1	Send 1kByte of data by packet of 200 Bytes
29	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.1	[Command performed successfully]
30	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.2	
31	ME → SIM	FETCH	
32	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.2	[200 Bytes]
33	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.2	[Command performed successfully]
34	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.3	
35	ME → SIM	FETCH	

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36	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.3	[200 Bytes]
37	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.3	[Command performed successfully]
38	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.4	
39	ME → SIM	FETCH	
40	SIM → ME	PROACTIVE COMMAND: SEND DATA (store mode) 1.3.4	[200 Bytes]
41	ME → SIM	TERMINAL RESPONSE: SEND DATA (store mode) 1.3.4	[Command performed successfully]
42	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.3.5	…
43	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.3.5	
44	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.3.5	[Command performed successfully]

Expected sequence 1.5 (SEND DATA, immediate mode with a bad channel identifier)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: SEND DATA 1.5.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.5.1	
10	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.1.1	[Invalid channel number]

PROACTIVE COMMAND: SEND DATA 1.5.1

Logically:

Command details
 Command number: 1
 Command type: SEND DATA
 Command qualifier: Send Immediately
Device identities
 Source device: SIM
 Destination device: Channel 2
Channel Data
 Channel Data : 00 01 .. 07 (8 Bytes of data)

Coding:

BER-TLV:	D0	13	81	03	01	43	01	82	02	81	22	B6
	08	00	01	02	03	04	05	06	07			

TERMINAL RESPONSE: SEND DATA 1.5.1

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Bearer Independent Protocol error (3A)
    Additional Result: Channel identifier not valid (03)

Coding:

BER-TLV:	81	03	01	43	01	82	02	82	81	83	02	3A
	03											

Expected sequence 1.6 (SEND DATA, immediate mode, Proactive SIM session terminated by the user)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING; SEND DATA 1.6.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: SEND DATA (immediate) 1.6.1	
10	ME → USER	ME displays "Send data"	
11	USER → ME	Abort proactive session	
12	ME → SIM	TERMINAL RESPONSE: SEND DATA (immediate) 1.1.1	[Proactive SIM session terminated by the user]

PROACTIVE COMMAND: SEND DATA 1.6.1

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities
    Source device: SIM
    Destination device: Channel 1
Alpha Identifier :   Send data
Channel Data
    Channel Data: 00 01 .. 07 (8 Bytes of data)

Coding:

BER-TLV:	D0	1E	81	03	01	43	01	82	02	81	21	85
	09	53	65	6E	64	20	64	61	74	61	B6	08
	00	01	02	03	04	05	06	07				

TERMINAL RESPONSE: SEND DATA 1.6.1

Logically:

Command details
    Command number: 1
    Command type: SEND DATA
    Command qualifier: Send Immediately
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Proactive SIM session terminated by the user

Coding:

BER-TLV:	81	03	01	43	01	82	02	82	81	83	01	10

27.22.4.30.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.4.31   GET CHANNEL STATUS

27.22.4.31.1   Definition and applicability

See clause 3.2.2.

27.22.4.31.2   Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

27.22.4.31.3   Test purpose

To verify that the ME shall send a TERMINAL RESPONSE (Command Performed Successfully) to the SIM after the ME receives the GET STATUS proactive command. The TERMINAL RESPONSE sent back to the SIM is function of the ME and the network capabilities against asked parameters by the SIM.

27.22.4.31.4 Method of test

27.22.4.31.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address 01.01.01.01

27.22.4.31.4.2 Procedure

Expected sequence 1.1 (GET STATUS, without any BIP channel opened)

For that test, no channel has been opened.

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: GET CHANNEL STATUS 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: GET STATUS 1.1.1	
4	ME → SIM	TERMINAL GET STATUS 1.1.1	[Command performed successfully]

PROACTIVE COMMAND: GET STATUS 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: GET STATUS

Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	44	00	82	02	81	82

TERMINAL RESPONSE: GET STATUS 1.1.1

Logically:

Command details
    Command number: 1
    Command type: GET STATUS
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status
    Channel status: No Channel, link not established

Coding:

BER-TLV:	81	03	01	44	00	82	02	82	81	83	01	00
	B8	02	00	00								

Expected sequence 1.2 (GET STATUS, with a BIP channel currently opened)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
4	ME → SS	SETUP CALL	
5	SS → ME	CONNECTED	
6	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
7	SIM → ME	PROACTIVE COMMAND PENDING: GET CHANNEL STATUS 1.2.1	
8	ME → SIM	FETCH	
9	SIM → ME	PROACTIVE COMMAND: GET STATUS 1.2.1	
10	ME → SIM	TERMINAL GET STATUS 1.2.1	[Command performed successfully]

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Address
    TON: International number
    NPI: ISDN / telephone numbering plan
    Dialling number string "112233445566778"
Bearer description
    Bearer type: CSD
Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous UDI
    Connection element: non-transparent
Buffer size 1000

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	03	E8				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status Channel identifier 1 and link established
Bearer description
    Bearer type: CSD
Bearer parameter
    Data rate: 9600bps V.32
    Bearer service: data circuit asynchronous
    Connection element: non-transparent
Buffer size 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	B8	02	81	01	B5	04	01	07	00	01	B9	02
	03	E8										

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: SIM
    Destination device: ME
Bearer
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1000
Text String: UserLog (User login)
Text String: UserPwd (User password)
SIM/ME interface transport level
    Transport format: UDP
    Port number: 44444
Data destination address 01.01.01.01

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	03	E8
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B

Logically:

Command details
    Command number: 1
    Command type: OPEN CHANNEL
    Command qualifier: immediate link establishment
Device identities
    Source device: ME
    Destination device: SIM
Result
General Result: Command performed successfully
Channel status Channel identifier 1 and link established or PDP context activated
Bearer description
    Bearer type: GPRS
    Bearer parameter:
        Precedence Class: 02
        Delay Class: 04
        Reliability Class: 05
        Peak throughput class: 05
        Mean throughput class: 16
        Packet data protocol: 02 (IP)
Buffer
    Buffer size: 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	03	E8							

PROACTIVE COMMAND: GET STATUS 1.2.1

Logically:

Command details
    Command number: 1
    Command type: GET STATUS
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	44	00	82	02	81	82

TERMINAL RESPONSE: GET STATUS 1.2.1

Logically:

Command details
    Command number: 1
    Command type: GET STATUS
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status
    Channel status: Channel 1 open, link established

Coding:

BER-TLV:	81	03	01	44	00	82	02	82	81	83	01	00
	B8	02	81	00								

Expected sequence 1.3 (GET STATUS, after a link dropped)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[Command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
8	ME → SS	SETUP CALL	
9	SS → ME	CONNECTED	
10	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
11	SS → ME	DROP LINK	
12	ME → SIM	ENVELOPE EVENT DOWNLOAD: CHANNEL STATUS 1.3.1	[Link dropped]
13	SIM → ME	PROACTIVE COMMAND PENDING: GET STATUS 1.3.1	
14	ME → SIM	FETCH	
15	SIM → ME	PROACTIVE COMMAND: GET STATUS 1.3.1	
16	ME → SIM	TERMINAL RESPONSE: GET STATUS 1.3.1	[Command performed successfully]

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          SET UP EVENT LIST
        Command qualifier:     '00'
    Device identities
        Source device:         SIM
        Destination device:    ME
    Event list
        Event 1:               Channel Status
```

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82
	99	01	0A								

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          SET UP EVENT LIST
        Command qualifier:     '00'
    Device identities
        Source device:         ME
        Destination device:    SIM
```

Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

ENVELOPE EVENT DOWNLOAD: CHANNEL STATUS 1.3.1

Logically:

Event list
    Event list: Channel Status
Device identities
    Source device: ME
    Destination device: SIM
Channel status
    Channel status: Channel 1, link dropped

Coding:

BER-TLV:	D6	0B	99	01	0A	82	02	82	81	B8	02	01
	05											

PROACTIVE COMMAND: GET STATUS 1.3.1

Logically:

Command details
    Command number: 1
    Command type: GET STATUS
    Command qualifier: RFU
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	44	00	82	02	81	82

TERMINAL RESPONSE: GET STATUS 1.3.1

Logically:

Command details
    Command number: 1
    Command type: GET STATUS
    Command qualifier: RFU
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully
Channel status
    Channel status: Channel 1, link dropped

Coding:

BER-TLV:	81	03	01	44	00	82	02	82	81	83	01	00
	B8	02	01	05								

27.22.4.31.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.5 Data Download to SIM

27.22.5.1 SMS-PP Data Download

27.22.5.1.1 Definition and applicability

See clause 3.2.2.

27.22.5.1.2 Conformance requirement

The ME shall support the Proactive SIM: SMS-PP Data Download facility as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 4.3, clause 5, clause 7.1, clause 12.1, clause 12.7 and clause 12.13.

27.22.5.1.3 Test purpose

To verify that the ME transparently passes the "data download via SMS Point-to-point" messages to the SIM.

To verify that the ME returns the RP-ACK message back to the system Simulator, if the SIM responds with '90 00' or '91 XX'.

To verify that the ME returns the response data from the SIM back to the system Simulator in the TP-User-Data element of the RP-ACK message, if the SIM responds with '9F XX'.

27.22.5.1.4 Method of Test

27.22.5.1.4.1 Initial conditions

The ME is connected to the system Simulator and the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.5.1.4.2 Procedure

Expected Sequence 1.1 (SMS-PP Data Download, General Data Coding, Default Alphabet)

Step	Direction	MESSAGE / Action	Comments
1	ME	The ME shall be in its normal idle mode	[Start a sequence to verify that the ME returns the RP-ACK message back to the system Simulator, if the SIM responds with '90 00']
2	SS → ME	SMS-PP Data Download Message 1.1.1	
3	ME → USER	The ME shall not display the message or alert the user of a short message waiting	
4	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.1.2	
5	SIM → ME	SW1 / SW2 of '90 00'	
6	ME → SS	RP-ACK.	

SMS-PP (Data Download) Message 1.1.1

Logically:

```
SMS TPDU
    TP-MTI              SMS-DELIVER
    TP-MMS              No more messages waiting for the MS in this SC
    TP-RP               TP-Reply-Path is not set in this SMS-DELIVER
    TP-UDHI             TP-UD field contains only the short message
    TP-SRI              A status report will not be returned to the SME
    TP-OA
    TON                 International number
        NPI             "ISDN / telephone numbering plan"
        Address value   "1234"
    TP-PID              SIM Data download
    TP-DCS
        Coding Group    General Data Coding
        Compression     Text is uncompressed
        Message Class   Class 2 SIM Specific Message
        Alphabet        Default Alphabet
    TP-SCTS:            01/01/98 00:00:00 +0
    TP-UDL             13
    TP-UD              "Short Message"
```

Coding:

BER-TLV	04	03	91	21	43	7F	12	89	10	10	00	00
	00	00	0D	53	F4	5B	4E	07	35	CB	F3	79
	F8	5C	06									

ENVELOPE: SMS-PP DOWNLOAD 1.1.2

Logically:

```
SMS-PP Download
    Device identities
        Source device:         Network
        Destination device:    SIM
    Address
        TON                    International number
        NPI                    "ISDN / telephone numbering plan"
        Dialling number string "112233445566778"
    SMS TPDU
        TP-MTI                 SMS-DELIVER
        TP-MMS                 No more messages waiting for the MS in this SC
        TP-RP                  TP-Reply-Path is not set in this SMS-DELIVER
        TP-UDHI                TP-UD field contains only the short message
        TP-SRI                 A status report will not be returned to the SME
        TP-OA
        TON                    International number
        NPI                    "ISDN / telephone numbering plan"
        Address value          "1234"
        TP-PID                 SIM Data download
        TP-DCS
            Coding Group       General Data Coding
            Compression        Text is uncompressed
            Message Class      Class 2 SIM Specific Message
            Alphabet           Default Alphabet
        TP-SCTS:               01/01/98 00:00:00 +0
        TP-UDL                 13
        TP-UD                  "Short Message"
```

Coding:

BER-TLV:	D1	2C	82	02	83	81	06	09	91	11	22	33
	44	55	66	77	F8	8B	1B	04	04	91	21	43
	7F	12	89	10	10	00	00	00	00	0D	53	F4
	5B	4E	07	35	CB	F3	79	F8	5C	06		

Expected Sequence 1.2 (SMS-PP Data Download, General Data Coding, Default Alphabet, GET RESPONSE, Acknowledgement)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-PP Data Download Message 1.2.1	
2	ME → USER	The ME shall not display the message or alert the user of a short message waiting.	
3	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.2.2	
4	SIM → ME	RESPONSE DATA AVAILABLE	[SW1 / SW2 of '9F 0B']
5	ME → SIM	GET RESPONSE	
6	SIM → ME	SMS-PP Data Download SIM Acknowledgement 1.2.3	
7	ME → SS	SMS-PP Data Download SIM Acknowledgement 1.2.4 in the TP-User-Data element of the RP-ACK message. The values of protocol identifier and data coding scheme in RP-ACK shall be as in the original message.	

Expected Sequence 1.3 (SMS-PP Data Download, General Data Coding, Default Alphabet, FETCH, MORE TIME)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-PP Data Download Message 1.3.1	
2	ME → USER	The ME shall not display the message or alert the user of a short message waiting	
3	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.3.2	
4	SIM → ME	PROACTIVE COMMAND PENDING: MORE TIME 1.3.3	[SW1 / SW2 of '91 0B']
5	ME → SS	RP-ACK	
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: MORE TIME 1.3.4	
8	ME → SIM	TERMINAL RESPONSE: MORE TIME 1.3.5	
9	SIM → ME	PROACTIVE SIM SESSION ENDED	

PROACTIVE COMMAND: MORE TIME 1.3.4

Logically:

Command details
    Command number: 1
    Command type: MORE TIME
    Command qualifier: "00"
Device identities

Source device:	SIM
Destination device:	ME

Coding:

BER-TLV:	D0	09	81	03	01	02	00	82	02	81	82

TERMINAL RESPONSE: MORE TIME 1.3.5

Logically:

Command details
    Command number: 1
    Command type: MORE TIME
    Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	02	00	82	02	82	81	83	01	00

Expected Sequence 1.4 (SMS-PP Data Download, General Data Coding, 8 Bit Alphabet)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-PP Data Download Message 1.4.1	
2	ME	The ME shall not display the message or alert the user of a short message waiting	
3	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.4.2	
4	SIM → ME	SW1 / SW2 of '90 00'	
5	ME → SS	RP-ACK	

SMS-PP (Data Download) Message 1.2.1 / 1.3.1 / 1.4.1

Logically:

SMS TPDU
    TP-MTI   SMS-DELIVER
    TP-MMS   No more messages waiting for the MS in this SC
    TP-RP   TP-Reply-Path is not set in this SMS-DELIVER
    TP-UDHI   TP-UD field contains only the short message
    TP-SRI   A status report will not be returned to the SME
    TP-OA
    TON   International number
    NPI   "ISDN / telephone numbering plan"
    Address value   "1234"
    TP-PID   SIM Data download
    TP-DCS
        Coding Group   General Data Coding
        Compression   Text is uncompressed
        Message Class   Class 2 SIM Specific Message
        Alphabet   8 bit
    TP-SCTS: 01/01/98 00:00:00 +0
    TP-UDL   13

TP-UD   "Short Message"

Coding:

BER-TLV:	04	03	91	21	43	7F	16	89	10	10	00	00
	00	00	0D	53	68	6F	72	74	20	4D	65	73
	73	61	67	65								

ENVELOPE: SMS-PP DOWNLOAD 1.2.2 / 1.3.2 / 1.4.2,

Logically:

SMS-PP Download
    Device identities
        Source device: Network
        Destination device: SIM
    Address
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Dialling number string "112233445566778"
    SMS TPDU
        TP-MTI   SMS-DELIVER
        TP-MMS   No more messages waiting for the MS in this SC
        TP-RP   TP-Reply-Path is not set in this SMS-DELIVER
        TP-UDHI   TP-UD field contains only the short message
        TP-SRI   A status report will not be returned to the SME
        TP-OA
            TON   International number
            NPI   "ISDN / telephone numbering plan"
            Address value   "1234"
        TP-PID   SIM Data download
        TP-DCS
            Coding Group   General Data Coding
            Compression   Text is uncompressed
            Message Class   Class 2 SIM Specific Message
            Alphabet   8 bit
        TP-SCTS: 01/01/98 00:00:00 +0
        TP-UDL   13
        TP-UD   "Short Message"

Coding:

BER-TLV:	D1	2D	82	02	83	81	06	09	91	11	22	33
	44	55	66	77	F8	8B	1C	04	04	91	21	43
	7F	16	89	10	10	00	00	00	00	0D	53	68
	6F	72	74	20	4D	65	73	73	61	67	65	

Expected Sequence 1.5 (SMS-PP Data Download, Data Coding / Message Class, Default Alphabet)

Step	Direction	MESSAGE / Action	Comments
1	ME	The ME shall be in its normal idle mode.	
2	SS → ME	SMS-PP Data Download Message 1.5.1.	
3	ME	The ME shall not display the message or alert the user of a short message waiting	
4	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.5.2.	
5	SIM → ME	SW1 / SW2 of '90 00'	
6	ME → SS	RP-ACK	

SMS-PP (Data Download) Message 1.5.1

Logically:

```
SMS TPDU
        TP-MTI              SMS-DELIVER
        TP-MMS              No more messages waiting for the MS in this SC
        TP-RP               TP-Reply-Path is not set in this SMS-DELIVER
        TP-UDHI             TP-UD field contains only the short message
        TP-SRI              A status report will not be returned to the SME
        TP-OA
            TON             International number
            NPI             "ISDN / telephone numbering plan"
            Address value   "1234"
        TP-PID              SIM Data download
        TP-DCS
            Coding Group    Data Coding / Message Class
            Message Coding  Default Alphabet
            Message Class   Class 2 SIM Specific Message
        TP-SCTS:            01/01/98 00:00:00 +0
        TP-UDL              13
        TP-UD               "Short Message"
```

Coding:

BER-TLV:	04	03	91	21	43	7F	F2	89	10	10	00	00
	00	00	0D	53	F4	5B	4E	07	35	CB	F3	79
	F8	5C	06									

ENVELOPE: SMS-PP DOWNLOAD 1.5.2

Logically:

```
SMS-PP Download
        Device identities
            Source device:          Network
            Destination device:     SIM
        Address
            TON                     International number
            NPI                     "ISDN / telephone numbering plan"
            Dialling number string  "112233445566778"
SMS TPDU
        TP-MTI                      SMS-DELIVER
        TP-MMS                      No more messages waiting for the MS in this SC
        TP-RP                       TP-Reply-Path is not set in this SMS-DELIVER
        TP-UDHI                     TP-UD field contains only the short message
        TP-SRI                      A status report will not be returned to the SME
        TP-OA
            TON                     International number
            NPI                     "ISDN / telephone numbering plan"
            Address value           "1234"
        TP-PID                      SIM Data download
        TP-DCS
            Coding Group            Data Coding / Message Class
            Message Coding          Default Alphabet
            Message Class           Class 2 SIM Specific Message
        TP-SCTS:                    01/01/98 00:00:00 +0
        TP-UDL                      13
        TP-UD                       "Short Message"
```

Coding:

BER-TLV:	D1	2C	82	02	83	81	06	09	91	11	22	33
	44	55	66	77	F8	8B	1B	04	04	91	21	43
	7F	F2	89	10	10	00	00	00	00	0D	53	F4
	5B	4E	07	35	CB	F3	79	F8	5C	06		

Expected Sequence 1.6 (SMS-PP Data Download, with Data Coding / Message Class, 8 Bit Alphabet)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-PP Data Download Message 1.6.1	
2	ME	The ME shall not display the message or alert the user of a short message waiting	
3	ME → SIM	ENVELOPE: SMS-PP DOWNLOAD 1.6.2	
4	SIM → ME	SW1 / SW2 of '90 00'	
5	ME → SS	RP-ACK	

SMS-PP (Data Download) Message 1.6.1

Logically:

```
SMS TPDU
    TP-MTI              SMS-DELIVER
    TP-MMS              No more messages waiting for the MS in this SC
    TP-RP               TP-Reply-Path is not set in this SMS-DELIVER
    TP-UDHI             TP-UD field contains only the short message
    TP-SRI              A status report will not be returned to the SME
    TP-OA
        TON             International number
        NPI             "ISDN / telephone numbering plan"
        Address value   "1234"
    TP-PID              SIM Data download
    TP-DCS
        Coding Group    Data Coding / Message Class
        Message Coding  8 bit
        Message Class   Class 2 SIM Specific Message
    TP-SCTS:            01/01/98 00:00:00 +0
    TP-UDL              13
    TP-UD               "Short Message"
```

Coding:

BER-TLV:	04	03	91	21	43	7F	F6	89	10	10	00	00
	00	00	0D	53	68	6F	72	74	20	4D	65	73
	73	61	67	65								

ENVELOPE: SMS-PP DOWNLOAD 1.6.2

Logically:

```
SMS-PP Download
    Device identities
        Source device:          Network
        Destination device:     SIM
    Address
        TON                     International number
        NPI                     "ISDN / telephone numbering plan"
        Dialling number string  "112233445566778"
    SMS TPDU
```

TP-MTI	SMS-DELIVER
TP-MMS	No more messages waiting for the MS in this SC
TP-RP	TP-Reply-Path is not set in this SMS-DELIVER
TP-UDHI	TP-UD field contains only the short message
TP-SRI	A status report will not be returned to the SME
TP-OA	
TON	International number
NPI	"ISDN / telephone numbering plan"
Address value	"1234"
TP-PID	SIM Data download
TP-DCS	
Coding Group	Data Coding / Message Class
Message Coding	8 bit
Message Class	Class 2 SIM Specific Message
TP-SCTS:	01/01/98 00:00:00 +0
TP-UDL	13
TP-UD	"Short Message"

Coding:

BER-TLV:	D1	2D	82	02	83	81	06	09	91	11	22	33
	44	55	66	77	F8	8B	1C	04	04	91	21	43
	7F	F6	89	10	10	00	00	00	00	0D	53	68
	6F	72	74	20	4D	65	73	73	61	67	65	

SMS-PP Data Download SIM Acknowledgement 1.2.4

Coding:

BER-TLV:	50	68	69	6C	20	48	6F	6F	6B	65	72

27.22.5.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.6.

27.22.5.2 SMS-CB Data Download

27.22.5.2.1 Definition and applicability

See clause 3.2.2.

27.22.5.2.2 Conformance requirement

The ME shall support the Proactive SIM: SMS-CB Data Download facility as defined in:

- 3GPP TS 11.14 [15] clause 4.3, clause 5, clause 7.2, clause 12.5 and clause 12.7.

27.22.5.2.3 Test purpose

To verify that the ME transparently passes the "data download via SMS Cell Broadcast" messages to the SIM, which contain a message identifier found in EF$_{CBMID}$.

27.22.5.2.4 Method of Test

27.22.5.2.4.1 Initial conditions

The ME is connected to the system Simulator and the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.5.2.4.2 Procedure

Expected Sequence 1.1 (SMS-CB (Data Download), ENVELOPE(SMS-CB DOWNLOAD), ME does not display message)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-CB (DATA DOWNLOAD) 1.1	Message identifier '10 01'
2	ME → SIM	ENVELOPE (SMS-CB DOWNLOAD) 1.1	
3	SIM → ME	SW1, SW2 '90 00'	

SMS-CB (Data Download) Message 1.1

Logically:

Message Content
    Serial Number
        Geographical scope: Cell wide, normal display mode
        Message code: 1
        Update number: 1
    Message Identifier: "1001"
    Data coding Scheme
    Message Coding: 8 bit data
    Message class: No message class
    Page Parameter
        Total number of pages: 1
        Page number: 1
    Content of message: "Cell Broadcast "..

Coding:

BER-TLV:	C0	11	10	01	F4	11	43	65	6C	6C	20	42
	72	6F	61	64	63	61	73	74	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20								

ENVELOPE: SMS-CB DOWNLOAD 1.1

Logically:

Cell Broadcast Download
    Device identities
        Source device: Network
        Destination device: SIM
Cell Broadcast page
    Serial Number
        Geographical scope: Cell wide, normal display mode
        Message code: 1
        Update number: 1
    Message Identifier: "1001"
    Data coding Scheme
    Message Coding: 8 bit data
    Message class: No message class
    Page Parameter

Number of pages: 1
Page number: 1
Content of message: "Cell Broadcast "..

Coding:

BER-TLV:	D2	5E	82	02	83	81	8C	58	C0	11	10	01
	F4	11	43	65	6C	6C	20	42	72	6F	61	64
	63	61	73	74	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20

Expected Sequence 1.2 (SMS-CB(DATA DOWNLOAD), ENVELOPE(SMS-CB DATA DOWNLOAD), FETCH, MORE TIME, ME does not display message)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-CB (DATA DOWNLOAD) 1.1	Message identifier '10 01'
2	ME → SIM	ENVELOPE (SMS-CB DOWNLOAD) 1.1	
3	SIM → ME		SW1/SW2 '91 0B'
4	ME → SIM	FETCH 1.1	
5	SIM → ME	PROACTIVE COMMAND:MORE TIME 1.1	
6	ME → SIM	TERMINAL RESPONSE	
7	SIM → ME	SW1/SW2 '90 00'	SIM session ended

PROACTIVE COMMAND: MORE TIME 1.1

Logically:

Command details
    Command number: 1
    Command type: MORE TIME
    Command qualifier: "00"
Device identities
    Source device: SIM
    Destination device: ME

Coding:

BER-TLV:	D0	09	81	03	01	02	00	82	02	81	82

TERMINAL RESPONSE: MORE TIME 1.1

Logically:

Command details
        Command number: 1
        Command type: MORE TIME
        Command qualifier: "00"
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	02	00	82	02	82	81	83	01	00

Expected Sequence 1.3 (SMS-CB (DATA DOWNLOAD), ME displays message)

Step	Direction	MESSAGE / Action	Comments
1	SS → ME	SMS-CB (DATA DOWNLOAD) 1.2	Message identifier '0C 0C'
2a	ME → USER	ME may display the message	
2b	ME → SIM	ME shall not download the CB message to the SIM using ENVELOPE (SMS-CB download)	
3	USER → ME	The user shall use a MMI dependent procedure to initiate the display of the received CB message	[only if message has not been displayed in step 2a]
4	ME → USER	ME displays the message	[only if message has not been displayed in step 2a]

SMS-CB (Data Download) Message 1.2

Logically:

        Message Content
                Serial Number
                        Geographical scope: Cell wide, normal display mode
                        Message code: 1
                        Update number: 1
                        Message Identifier: "0C0C"
                Data coding Scheme
                        Message Coding: 8 bit data
                        Message class: No message class
                Page Parameter
                        Total number of pages: 1
                        Page number: 1
                        Content of message: "Cell Broadcast".

Coding:

BER-TLV:	C0	11	0C	0C	F4	11	43	65	6C	6C	20	42
	72	6F	61	64	63	61	73	74	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20								

27.22.5.2.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.3.

27.22.6 CALL CONTROL BY SIM

27.22.6.1   Procedure for Mobile Originated calls

27.22.6.1.1   Definition and applicability

See clause 3.2.2.

27.22.6.1.2 Conformance requirement

The ME shall support the CALL CONTROL facility as defined in:

- 3GPP TS 11.14 [15] clause 9.1.1.

27.22.6.1.3 Test purpose

To verify that for all call set-up attempts , even those resulting from a SET UP CALL proactive SIM command, the ME shall first pass the call set-up details (dialled digits and associated parameters) to the SIM, using the ENVELOPE (CALL CONTROL).

To verify that if the SIM responds with '90 00', the ME shall set up the call with the dialled digits and other parameters as sent to the SIM.

To verify that if the SIM responds with '9F XX', the ME shall use the GET RESPONSE command to get the response data. The response data from the SIM shall indicate to the ME whether to set up the call as proposed, not set up the call, set up a call using the data supplied by the SIM.

To verify that, in the case where the initial call set-up request results from a proactive SET UP CALL, if the call control result is "not allowed" or "allowed with modifications", the ME shall inform the SIM using TERMINAL RESPONSE "interaction with call control by SIM or MO short message control by SIM, action not allowed".

To verify that it is possible for the SIM to request the ME to set up an emergency call by supplying the number "112" as the response data.

27.22.6.1.4 Method of tests

27.22.6.1.4.1 Initial conditions

The ME is connected to the SIM Simulator and System Simulator and has performed the location update procedure.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The call control service is allocated and activated in the SIM Service Table.

27.22.6.1.4.2 Procedure

Expected Sequence 1.1 (CALL CONTROL BY SIM , set up call attempt by user, the SIM responds with '90 00')

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.1.1A Or ENVELOPE CALL CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	90 00	
4	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"

ENVELOPE CALL CONTROL 1.1.1A

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON: International
        NPI: "ISDN / telephone numbering plan" or "unknown"
        Dialling number string   "01234567890123456789"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (00F110)
        LAC   the location Area Code (0001)
        Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.1.1B

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON: International
        NPI: "ISDN / telephone numbering plan" or "unknown"
        Dialling number string   "01234567890123456789"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.

Subaddress
 This parameter is optional. If present, the contents shall not be checked.
Location Information
 MCC & MNC   the mobile country and network code (001110)
 LAC   the location Area Code (0001)
 Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
 This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

Expected Sequence 1.2 (CALL CONTROL BY SIM , set up call attempt by user, allowed without modification)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.2.1 A or ENVELOPE CALL CONTROL 1.2.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.2.1	[Call control result: "Allowed, no modification"]
6	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"]

ENVELOPE CALL CONTROL 1.2.1A

Logically:

Device identities
 Source device: ME
 Destination device: SIM
Address
 TON: International
 NPI: "ISDN / telephone numbering plan" or "unknown"
 Dialling number string   "01234567890123456789"
Capability configuration parameters 1
 This parameter is optional. If present, the contents shall not be checked.
Subaddress
 This parameter is optional. If present, the contents shall not be checked.
Location Information

MCC & MNC   the mobile country and network code (00F110)
LAC   the location Area Code (0001)
Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.2.1B

Logically:

Device identities
      Source device: ME
      Destination device: SIM
Address
      TON: International
      NPI: "ISDN / telephone numbering plan" or "unknown"
      Dialling number string   "01234567890123456789"
Capability configuration parameters 1
      This parameter is optional. If present, the contents shall not be checked.
Subaddress
      This parameter is optional. If present, the contents shall not be checked.
Location Information
      MCC & MNC   the mobile country and network code (001110)
      LAC   the location Area Code (0001)
      Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
      This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.2.1

Logically:

Call control result :   '00' = Allowed, no modification

Coding:

BER-TLV:	00	00

Expected Sequence 1.3A (CALL CONTROL BY SIM , set up call attempt resulting from a set up call proactive command, allowed without modification)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.3.1 PENDING	[This test applies to MEs asking for user confirmation before sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.3.1	[Set up call to "+012340123456"]
4	ME → USER	ME displays "+012340123456" during user confirmation phase.	
5	USER → ME	The user confirms the call set up	[user confirmation]
6	ME → SIM	ENVELOPE CALL CONTROL 1.3.1A or ENVELOPE CALL CONTROL 1.3.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
7	SIM → ME	9F 02	
8	ME → SIM	GET RESPONSE	
9	SIM → ME	CALL CONTROL RESULT 1.3.1	[Call control result: "Allowed, no modification"]
10	ME → SS	The ME sets up the call without modification	[Set up call to "+012340123456"]
11	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.3.1	[command performed successfully]

Expected Sequence 1.3 B (CALL CONTROL BY SIM , set up call attempt resulting from a set up call proactive command, allowed without modification)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.3.1 PENDING	[This test applies to MEs asking for user confirmation after sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.3.1	[Set up call to "+012340123456"]
4	ME → SIM	ENVELOPE CALL CONTROL 1.3.1A or ENVELOPE CALL CONTROL 1.3.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
5	SIM → ME	9F 02	
6	ME → SIM	GET RESPONSE	
7	SIM → ME	CALL CONTROL RESULT 1.3.1	[Call control result: "Allowed, no modification"]
8	ME → USER	ME displays "+012340123456" during user confirmation phase.	
9	USER → ME	The user confirms the call set up	[user confirmation]
10	ME → SS	The ME sets up the call without modification	[Set up call to "+012340123456"]
11	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.3.1	[command performed successfully]

PROACTIVE COMMAND: SET UP CALL 1.3.1

Logically:

```
    Command details
        Command number:        1
        Command type:          SET UP CALL
        Command qualifier:     Only if not currently busy on another call
    Device identities
        Source device:         SIM
        Destination device:    Network
    Alpha identifier:          "+012340123456"
    Address
        TON:                   International
        NPI:                   "ISDN / telephone numbering plan"
        Dialling number string "012340123456"
```

Coding:

BER-TLV:	D0	21	81	03	01	10	00	82	02	81	83
	05	0D	2B	30	31	32	33	34	30	31	32
	33	34	35	36	86	07	91	10	32	04	21
	43	65									

ENVELOPE CALL CONTROL 1.3.1A

Logically:

```
    Device identities
        Source device:         ME
        Destination device:    SIM
    Address
        TON:                   International
```

       NPI: "ISDN / telephone numbering plan" or "unknown"
       Dialling number string   "012340123456"
Capability configuration parameters 1
       This parameter is optional. If present, the contents shall not be checked.
Subaddress
       This parameter is optional. If present, the contents shall not be checked.
Location Information
       MCC & MNC   the mobile country and network code (00F110)
       LAC   the location Area Code (0001)
       Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
       This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	F1	10
	00	01	00	01	Note 4						

ENVELOPE CALL CONTROL 1.3.1B

Logically:

Device identities
       Source device: ME
       Destination device: SIM
Address
       TON: International
       NPI: "ISDN / telephone numbering plan" or "unknown"
       Dialling number string   "012340123456"
Capability configuration parameters 1
       This parameter is optional. If present, the contents shall not be checked.
Subaddress
       This parameter is optional. If present, the contents shall not be checked.
Location Information
       MCC & MNC   the mobile country and network code (001110)
       LAC   the location Area Code (0001)
       Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
       This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	11	10
	00	01	00	01	Note 4						

Note 1: Length of BER-TLV is '16' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.3.1

Logically:

Call control result :   '00' = Allowed, no modification

Coding:

BER-TLV:	00	00

TERMINAL RESPONSE: SET UP CALL 1.3.1

Logically:

Command details
    Command number: 1
    Command type: SET UP CALL
    Command qualifier: Only if not currently busy on another call
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 1.4 (CALL CONTROL BY SIM , set up call attempt by user, not allowed)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.4.1 A or ENVELOPE CALL CONTROL 1.4.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.4.1	[Call control result: "not Allowed"]
6	ME → SS	The ME does not set up the call	

ENVELOPE CALL CONTROL 1.4.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string   "+01234567890123456789"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.

Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.4.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string "+01234567890123456789"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.4.1

Logically:

Call control result: '01' = not Allowed

Coding:

BER-TLV:	01	00

Expected Sequence 1.5A (CALL CONTROL BY SIM , set up call attempt resulting from a set up call proactive command, not allowed)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.5.1 PENDING	[This test applies to MEs asking for user confirmation before sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.5.1	[Set up call to "+012340123456"
4	ME → USER	ME displays "+012340123456" during user confirmation phase.	
5	USER → ME	The user confirms the call set up	[user confirmation]
6	ME → SIM	ENVELOPE CALL CONTROL 1.5.1A or ENVELOPE CALL CONTROL 1.5.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
7	SIM → ME	9F 02	
8	ME → SIM	GET RESPONSE	
9	SIM → ME	CALL CONTROL RESULT 1.5.1	[Call control result: "Not Allowed"]
10	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.5.1	[Permanent Problem - Interaction with Call Control by SIM]
11	ME → SS	The ME does not set up the call	

Expected Sequence 1.5 B (CALL CONTROL BY SIM , set up call attempt resulting from a set up call proactive command, not allowed)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.5.1 PENDING	[This test applies to MEs asking for user confirmation after sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.5.1	[Set up call to "+012340123456"
4	ME → SIM	ENVELOPE CALL CONTROL 1.5.1A or ENVELOPE CALL CONTROL 1.5.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
5	SIM → ME	9F 02	
6	ME → SIM	GET RESPONSE	
7	SIM → ME	CALL CONTROL RESULT 1.5.1	[Call control result: "Not Allowed"] [No user confirmation phase because Call Control has disallowed the request]
8	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.5.1	[Permanent Problem - Interaction with Call Control by SIM]
9	ME → SS	The ME does not set up the call	

PROACTIVE COMMAND: SET UP CALL 1.5.1

Logically:

Command details
    Command number: 1
    Command type: SET UP CALL
    Command qualifier: Only if not currently busy on another call
Device identities
    Source device: SIM
    Destination device: Network
Alpha identifier: "+012340123456"
Address
    TON: International
    NPI: "ISDN / telephone numbering plan"
    Dialling number string "012340123456"

Coding:

BER-TLV:	D0	21	81	03	01	10	00	82	02	81	83
	05	0D	2B	30	31	32	33	34	30	31	32
	33	34	35	36	86	07	91	10	32	04	21
	43	65									

ENVELOPE CALL CONTROL 1.5.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string "012340123456"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC the mobile country and network code (00F110)
    LAC the location Area Code (0001)
    Cell ID Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	F1	10
	00	01	00	01	Note 4						

ENVELOPE CALL CONTROL 1.5.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"

Dialling number string   "012340123456"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	11	10
	00	01	00	01	Note 4						

Note 1: Length of BER-TLV is '16' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets

CALL CONTROL RESULT 1.5.1

Logically:

    Call control result: '01' = not Allowed

Coding:

BER-TLV:	01	00

TERMINAL RESPONSE: SET UP CALL 1.5.1

Logically:

Command details
    Command number: 1
    Command type: SET UP CALL
    Command qualifier: Only if not currently busy on another call
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Interaction with call control by SIM or MO short message control by SIM, permanent problem
    Additional information: Action not allowed

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	02	39
	01											

Expected Sequence 1.6 (CALL CONTROL BY SIM , set up call attempt by user, allowed with modifications)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.6.1 A or ENVELOPE CALL CONTROL 1.6.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 07	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.6.1	[Call control result: "Allowed with modifications",]
6	ME → SS	The ME sets up the call to "+010203"	

ENVELOPE CALL CONTROL 1.6.1A

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON: International
            NPI: "ISDN / telephone numbering plan" or "unknown"
            Dialling number string   "01234567890123456789"
    Capability configuration parameters 1
            This parameter is optional. If present, the contents shall not be checked.
    Subaddress
            This parameter is optional. If present, the contents shall not be checked.
    Location Information
            MCC & MNC   the mobile country and network code (00F110)
            LAC   the location Area Code (0001)
            Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
            This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.6.1B

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON: International
            NPI: "ISDN / telephone numbering plan" or "unknown"
            Dialling number string   "01234567890123456789"
    Capability configuration parameters 1

ETSI

This parameter is optional. If present, the contents shall not be checked.

Subaddress

This parameter is optional. If present, the contents shall not be checked.

Location Information

MCC & MNC	the mobile country and network code (001110)	
LAC	the location Area Code (0001)	
Cell ID	Cell Identity Value (0001)	

Capability configuration parameters 2

This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.6.1

Logically:

Call control result:	'02' = Allowed with modifications

Address

TON:	International
NPI:	"ISDN / telephone numbering plan" or "unknown"
Dialling number string	"010203"

Coding:

BER-TLV:	02	06	86	04	91	10	20	30

Expected Sequence 1.7A (CALL CONTROL BY SIM, set up call attempt resulting from a set up call proactive command, allowed with modifications)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.7.1 PENDING	[This test applies to MEs asking for user confirmation before sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.7.1	[Set up call to "+012340123456"]
4	ME → USER	ME displays "+012340123456" during user confirmation phase.	
5	USER → ME	The user confirms the call set up	[user confirmation]
6	ME → SIM	ENVELOPE CALL CONTROL 1.7.1A or ENVELOPE CALL CONTROL 1.7.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
7	SIM → ME	9F 0B	
8	ME → SIM	GET RESPONSE	
9	SIM → ME	CALL CONTROL RESULT 1.7.1	[Call control result: "Allowed with modifications"]
10	ME → SS	The ME sets up the call to "+011111111111"	
11	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.7.1	[command performed successfully]

Expected Sequence 1.7 B (CALL CONTROL BY SIM, set up call attempt resulting from a set up call proactive command, allowed with modifications)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.7.1 PENDING	[This test applies to MEs asking for user confirmation after sending the ENVELOPE CALL CONTROL command]
2	ME→SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP CALL 1.7.1	[Set up call to "+012340123456"]
4	ME → SIM	ENVELOPE CALL CONTROL 1.7.1A or ENVELOPE CALL CONTROL 1.7.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
5	SIM → ME	9F 0B	
6	ME → SIM	GET RESPONSE	
7	SIM → ME	CALL CONTROL RESULT 1.7.1	[Call control result: "Allowed with modifications"]
8	ME → USER	ME displays "+012340123456" during user confirmation phase.	
9	USER → ME	The user confirms the call set up	[user confirmation]
10	ME → SS	The ME sets up the call to "+011111111111"	[call is set up to modified address]
11	ME → SIM	TERMINAL RESPONSE: SET UP CALL 1.7.1	[command performed successfully]

PROACTIVE COMMAND: SET UP CALL 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL

Command qualifier:		Only if not currently busy on another call							

Device identities
    Source device: SIM
    Destination device: Network
Alpha identifier: "+012340123456"
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string "012340123456"

Coding:

BER-TLV:	D0	21	81	03	01	10	00	82	02	81	83
	05	0D	2B	30	31	32	33	34	30	31	32
	33	34	35	36	86	07	91	10	32	04	21
	43	65									

ENVELOPE CALL CONTROL 1.7.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string "012340123456"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC the mobile country and network code (00F110)
    LAC the location Area Code (0001)
    Cell ID Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	F1	10
	00	01	00	01	Note 4						

ENVELOPE CALL CONTROL 1.7.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string "012340123456"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.

Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	02	02	82	81	06	07	91	10	32
	04	21	43	65	Note 2	Note 3	13	07	00	11	10
	00	01	00	01	Note 4						

Note 1: Length of BER-TLV is '16' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.7.1

Logically:

        Call control result: '02' = Allowed with modifications
    Address
        TON: International
        NPI: "ISDN / telephone numbering plan" or "unknown"
        Dialling number string "011111111111"

Coding:

BER-TLV:	02	09	86	07	91	10	11	11	11	11	11

TERMINAL RESPONSE: SET UP CALL 1.7.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP CALL
        Command qualifier: Only if not currently busy on another call
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

Expected Sequence 1.8 (CALL CONTROL BY SIM , set up call attempt by user, allowed with modifications: emergency call)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.8.1A or ENVELOPE CALL CONTROL 1.8.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters
3	SIM → ME	9F 06	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.8.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up an emergency call;	

ENVELOPE CALL CONTROL 1.8.1A

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON: International
            NPI: "ISDN / telephone numbering plan" or "unknown"
            Dialling number string "01234567890123456789"
    Capability configuration parameters 1
            This parameter is optional. If present, the contents shall not be checked.
    Subaddress
            This parameter is optional. If present, the contents shall not be checked.
    Location Information
            MCC & MNC   the mobile country and network code (00F110)
            LAC   the location Area Code (0001)
            Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
            This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.8.1B

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON: International
            NPI: "ISDN / telephone numbering plan" or "unknown"
            Dialling number string "01234567890123456789"
    Capability configuration parameters 1

This parameter is optional. If present, the contents shall not be checked.
Subaddress
This parameter is optional. If present, the contents shall not be checked.
Location Information
MCC & MNC   the mobile country and network code (001110)
LAC   the location Area Code (0001)
Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.8.1

Logically:

Call control result   Allowed, with modification
Address
TON   Unknown
NPI   "ISDN / telephone numbering plan"
Address value   "112"

Coding:

BER-TLV:	02	05	86	03	81	11	F2

Expected Sequence 1.9 (CALL CONTROL BY SIM , set up call attempt by user, allowed with modifications: number in EF$_{ECC}$)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.9.1A or ENVELOPE CALL CONTROL 1.9.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 06	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.9.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up call with the dialled digits "1020". The ME does not set up an emergency call, but stes up a normal call	

ENVELOPE CALL CONTROL 1.9.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string   "01234567890123456789"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	F1	10	00	01	00	01	Note 4					

ENVELOPE CALL CONTROL 1.9.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON: International
    NPI: "ISDN / telephone numbering plan" or "unknown"
    Dialling number string   "01234567890123456789"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	0B	91	10	32	54
	76	98	10	32	54	76	98	Note 2	Note 3	13	07	00
	11	10	00	01	00	01	Note 4					

Note 1: Length of BER-TLV is '1A' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESULT 1.9.1

Logically:

Call control result	Allowed, with modification
Address	
TON	Unknown
NPI	"ISDN / telephone numbering plan"
Address value	"1020"

Coding:

BER-TLV:	02	05	86	03	81	01	02

Expected Sequence 1.10 (CALL CONTROL BY SIM , set up call attempt by user to an emergency call)

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "112"	
2	ME → SIM	The ME does not send any ENVELOPE CALL CONTROL	
3	ME → SS	The ME sets up an emergency call	

Expected Sequence 1.11 (CALL CONTROL BY SIM , set up call through call register, the SIM responds with '90 00')

Pre-condition: the ME has a mean to register the last dialled number(s), and the ME will store dialled numbers allowed by call control in its register.

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.1.1A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 1.1.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	90 00	
4	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"]
5	USER → ME	End Call.	
6	USER → ME	Recall the last dialled number	
7	ME → SIM	ENVELOPE CALL CONTROL 1.1.1A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 1.1.1B	[Option B shall apply for PCS1900 parameters]
8	SIM → ME	90 00	
9	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"]
10	USER → ME	End Call.	

Expected Sequence 1.12 (CALL CONTROL BY SIM , set up call through call register, allowed without modification)

Pre-condition: the ME has a mean to register the last dialled number(s), and the ME will store dialled numbers allowed by call control in its register.

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.2.1A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 1.2.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.2.1	[Call control result: "Allowed, no modification"]
6	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"]
7	User → ME	End the call then call the last dialled number	
8	ME → SIM	ENVELOPE CALL CONTROL 1.2.1A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 1.2.1B	[Option B shall apply for PCS1900 parameters]
9	SIM → ME	9F 02	[Call control result: "Allowed, no modification"]
10	ME → SIM	GET RESPONSE	
11	SIM → ME	CALL CONTROL RESULT 1.2.1	
12	ME → SS	The ME sets up the call without modification	[Set up call to "+01234567890123456789"]

Expected Sequence 1.13 (CALL CONTROL BY SIM , set up call through call register, not allowed)

Pre-condition: the ME has a mean to register the last dialled number(s), and the ME will store dialled numbers not allowed by call control in its register.

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.4.1A or ENVELOPE CALL CONTROL 1.4.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.4.1	[Call control result: "not Allowed"]
6	ME → SS	The ME does not set up the call	
7	User → ME	The user calls the last dialled number	
8	ME → SIM	ENVELOPE CALL CONTROL 1.4.1A or ENVELOPE CALL CONTROL 1.4.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
9	SIM → ME	9F 02	
10	ME → SIM	GET RESPONSE	
11	SIM → ME	CALL CONTROL RESULT 1.4.1	[Call control result: "not Allowed"]
12	ME → SS	The ME does not set up the call	

Expected Sequence 1.14 (CALL CONTROL BY SIM , set up call through call register, allowed with modifications)

Pre-condition: the ME has a mean to register the last dialled number(s), and the ME will store dialled numbers allowed with modification in its register.

Step	Direction	Message / Action	Comments
1	User → ME	Set up a call to "+01234567890123456789"	
2	ME → SIM	ENVELOPE CALL CONTROL 1.6.1A or ENVELOPE CALL CONTROL 1.6.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 07	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 1.6.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up the call to "+010203"	
7	User → ME	Set up a call to "+01234567890123456789"	
8	ME → SIM	ENVELOPE CALL CONTROL 1.6.1A or ENVELOPE CALL CONTROL 1.6.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
9	SIM → ME	9F 07	
10	ME → SIM	GET RESPONSE	
11	SIM → ME	CALL CONTROL RESULT 1.6.1	[Call control result: "Allowed with modifications"]
12	ME → SS	The ME sets up the call to "+010203"	

27.22.6.1.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.14.

27.22.6.2   Procedure for Supplementary (SS) Services

27.22.6.2.1   Definition and applicability

See clause 3.2.2.

27.22.6.2.2   Conformance requirement

The ME shall support the CALL CONTROL facility as defined in the following technical specifications:

- 3GPP TS 11.14 [15] clause 9.1.2.

27.22.6.2.3   Test purpose

To verify that the ME first pass the supplementary service control string corresponding to the supplementary service operation to the SIM, using the ENVELOPE (CALL CONTROL) command.

To verify that, if the SIM responds with '90 00', the ME shall send the supplementary service operation with the information as sent to the SIM.

To verify that, if the SIM responds with '9F XX', the ME shall use the GET RESPONSE command to get the response data. The response data from the SIM shall indicate to the ME whether to send the supplementary service operation as proposed, not send the SS operation, or instead send the SS operation using the data supplied by the SIM.

27.22.6.2.4   Method of tests

27.22.6.2.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The call control service is allocated and activated in the SIM Service Table.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01 ;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

ETSI

27.22.6.2.4.2 Procedure

Expected Sequence 2.1 (CALL CONTROL BY SIM , send SS, the SIM responds with '90 00')

Step	Direction	Message / Action	Comments
1	User → ME	The user selects the facility of the ME which requires an unconditional call forward supplementary service operation to be sent to the network (System Simulator).	
2	ME → SIM	ENVELOPE CALL CONTROL 2.1.1A or ENVELOPE CALL CONTROL 2.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	90 00	
4	ME → SS	REGISTER 2.1	[The ME sends the supplementary service operation with the information as sent to the SIM]
5	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	

ENVELOPE CALL CONTROL 2.1.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: "FF"
    Dialling number string "*21#"
Location Information
    MCC & MNC the mobile country and network code (00F110)
    LAC the location Area Code (0001)
    Cell ID Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	F1	10	00	01	00	01				

ENVELOPE CALL CONTROL 2.1.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: "FF"
    Dialling number string "*21#"
Location Information
    MCC & MNC the mobile country and network code (001110)
    LAC the location Area Code (0001)
    Cell ID Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	11	10	00	01	00	01				

REGISTER 2.1

Logically (only SS argument):

    ACTIVATE SS ARGUMENT
            SS-Code:
                - Call Forwarding Unconditional
            TeleserviceCode
                - All Tele Services

Coding:

BER-TLV	30	06	04	01	21	83	01	00			

RELEASE COMPLETE (SS RETURN RESULT) 2.1

Logically (only from operation code):

    ACTIVATE SS RETURN RESULT
            ForwardingInfo
            SS-Code
                - Call Forwarding Unconditional
            ForwardFeatureList
                ForwardingFeature
                TeleserviceCode
                    - All Tele Services
            SS-Status
                - state ind.: operative
                - provision ind.: provisioned
                - registration ind.: registered
                - activation ind.: active

Coding:

BER-TLV	0C	A0	0D	04	01	21	30	08	30	06	83	01
	00	84	01	07								

Expected Sequence 2.2 (CALL CONTROL BY SIM , send SS, allowed without modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user selects the facility of the ME which requires an unconditional call forward supplementary service operation to be sent to the network (System Simulator).	
2	ME → SIM	ENVELOPE CALL CONTROL 2.2.1A or ENVELOPE CALL CONTROL 2.2.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 2.2.1	[Call control result: "Allowed without modifications"]
6	ME → SS	REGISTER 2.1	The ME sends the supplementary service operation with the information as sent to the SIM
7	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.1	

ENVELOPE CALL CONTROL 2.2.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: "FF"
    Dialling number string   "*21#"
Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	F1	10	00	01	00	01				

ENVELOPE CALL CONTROL 2.2.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: "FF"
    Dialling number string   "*21#"
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	11	10	00	01	00	01				

CALL CONTROL RESPONSE 2.2.1

Logically:

Call control result   Allowed, no modifications

Coding:

BER-TLV:	00	00

Expected Sequence 2.3 (CALL CONTROL BY SIM , send SS, not allowed)

Step	Direction	Message / Action	Comments
1	User → ME	The user selects the facility of the ME which requires an unconditional call forward supplementary service operation to be sent to the network (System Simulator).	
2	ME → SIM	ENVELOPE CALL CONTROL 2.3.1A or ENVELOPE CALL CONTROL 2.3.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 2.3.1	[Call control result: "Not Allowed"]
6	ME → SS	The ME does not send the supplementary service operation	

ENVELOPE CALL CONTROL 2.3.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: Unknown
    Dialling number string   "*21#"
Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	F1	10	00	01	00	01				

ENVELOPE CALL CONTROL 2.3.1B

Logically:

Device identities
    Source device: ME

```
        Destination device:    SIM
SS String
        TON/NPI:               Unknown
        Dialling number string "*21#"
Location Information
        MCC & MNC              the mobile country  and network code (001110)
        LAC                    the location Area Code (0001)
        Cell ID                Cell Identity Value (0001)
```

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	11	10	00	01	00	01				

CALL CONTROL RESPONSE 2.3.1

Logically:

        Call control result   Not Allowed

Coding:

BER-TLV:	01	00

Expected Sequence 2.4 (CALL CONTROL BY SIM , send SS, allowed with modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user selects the facility of the ME which requires an unconditional call forward supplementary service operation to be sent to the network (System Simulator).	
2	ME → SIM	ENVELOPE CALL CONTROL 2.4.1A or ENVELOPE CALL CONTROL 2.4.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 07	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 2.4.1	[Call control result: "Allowed with modifications"]
6	ME → SS	REGISTER 2.4	[The ME sends the supplementary service operation with the information as sent by the SIM]
7	SS → ME	RELEASE COMPLETE (SS RETURN RESULT) 2.4	

ENVELOPE CALL CONTROL 2.4.1A

Logically:

```
Device identities
        Source device:         ME
        Destination device:    SIM
SS String
        TON/NPI:               Unknown
        Dialling number string "*21#"
Location Information
        MCC & MNC              the mobile country  and network code (00F110)
        LAC                    the location Area Code (0001)
```

Cell ID   Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	F1	10	00	01	00	01				

ENVELOPE CALL CONTROL 2.4.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
SS String
    TON/NPI: Unknown
    Dialling number string "*21#"
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Coding:

BER-TLV:	D4	12	82	02	82	81	89	03	FF	2A	B1	13
	07	00	11	10	00	01	00	01				

CALL CONTROL RESPONSE 2.4.1

Logically:

    Call control result   Allowed, with modifications
SS String
    TON/NPI   "FF"
    SS String   "*#21#"

Coding:

BER-TLV:	02	06	89	04	FF	BA	12	FB

REGISTER 2.4

Logically (only SS argument):

INTERROGATE SS ARGUMENT
    SS-Code
      - Call Forwarding Unconditional

Coding:

BER-TLV	30	03	04	01	21

RELEASE COMPLETE (SS RETURN RESULT) 2.4

Logically (only from operation code):

INTERROGATE SS RESULT
    Call Forwarding Unconditional
    SS-Status
      - state ind.: operative

- provision ind.: provisioned
- registration ind.: registered
- activation ind.: not active

Coding:

BER-TLV	80	01	06						

27.22.6.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.4.

27.22.6.3 Interaction with Fixed Dialling Number (FDN)

27.22.6.3.1 Definition and applicability

See clause 3.2.2.

27.22.6.3.2 Conformance requirement

The ME shall support the CALL CONTROL facility as defined in:

- 3GPP TS 11.14 [15] clause 9.1.4.

27.22.6.3.3 Test purpose

To verify that the ME checks that the number entered through the MMI is on the FDN list.

To verify that, if the MMI input does not pass the FDN check, the call shall not be set up.

To verify that, if the MMI input does pass the FDN check, the ME shall pass the dialled digits and other parameters to the SIM, using the ENVELOPE (CALL CONTROL) command.

To verify that, if the SIM responds with "allowed, no modification", the ME shall set up the call as proposed.

To verify that, if the SIM responds with "not allowed", the ME shall not set up the call.

To verify that, if the SIM responds with "allowed with modifications", the ME shall set up the call in accordance with the response from the SIM. If the modifications involve changing the dialled digits, the ME shall not re-check this modified number against the FDN list.

27.22.6.3.4 Method of tests

27.22.6.3.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The call control service is allocated and activated in the SIM Service Table.

Fixed Dialling Number service is enabled.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01 ;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

27.22.6.3.4.2   Procedure

Expected Sequence 3.1 (CALL CONTROL BY SIM , set up a call not in EF_{FDN})

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "4321"	
2	ME → SIM	The ME does not send the ENVELOPE (CALL CONTROL) command to the SIM.	
3	ME → SS	The ME does not set up the call.	

Expected Sequence 3.2 (CALL CONTROL BY SIM , set up a call in EF_{FDN} , the SIM responds with '90 00')

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "123"	
2	ME → SIM	ENVELOPE CALL CONTROL 3.2.1A or ENVELOPE CALL CONTROL 3.2.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	90 00	
4	ME → SS	The ME sets up the call without modification	[Set up call to "123"]

ENVELOPE CALL CONTROL 3.2.1A

Logically:

```
Device identities
      Source device:         ME
      Destination device:    SIM
Address
      TON                    Unknown
      NPI                    "ISDN / telephone numbering plan"
      Dialling number string "123"
Capability configuration parameters 1
      This parameter is optional. If present, the contents shall not be checked.
Subaddress
      This parameter is optional. If present, the contents shall not be checked.
Location Information
      MCC & MNC              the mobile country  and network code (00F110)
      LAC                    the location Area Code (0001)
      Cell ID                Cell Identity Value (0001)
```

ETSI

Capability configuration parameters 2

This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	F3	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 3.2.1B

Logically:

Device identities
 Source device: ME
 Destination device: SIM
Address
 TON Unknown
 NPI "ISDN / telephone numbering plan"
 Dialling number string "123"
Capability configuration parameters 1
 This parameter is optional. If present, the contents shall not be checked.
Subaddress
 This parameter is optional. If present, the contents shall not be checked.
Location Information
 MCC & MNC the mobile country and network code (001110)
 LAC the location Area Code (0001)
 Cell ID Cell Identity Value (0001)

Capability configuration parameters 2
 This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	F3	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

Expected Sequence 3.3 (CALL CONTROL BY SIM , set up a call in EF_{FDN}, Allowed without modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "9876"	
2	ME → SIM	ENVELOPE CALL CONTROL 3.3.1A or ENVELOPE CALL CONTROL 3.3.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 3.3.1	[Call control result: "Allowed without modifications"]
6	ME → SS	The ME sets up the call without modification	[Set up call to "9876"]

ENVELOPE CALL CONTROL 3.3.1A

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Dialling number string   "9876"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (00F110)
        LAC   the location Area Code (0001)
        Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 3.3.1B

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Dialling number string   "9876"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (001110)
        LAC   the location Area Code (0001)

ETSI

Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets

CALL CONTROL RESPONSE 3.3.1

Logically:

    Call control result   Allowed, no modifications

Coding:

BER-TLV:	00	00

Expected Sequence 3.4 (CALL CONTROL BY SIM , set up a call in EF$_{FDN}$, Not Allowed)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "9876"	
2	ME → SIM	ENVELOPE CALL CONTROL 3.4.1A or ENVELOPE CALL CONTROL 3.4.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 3.4.1	[Call control result: "Not Allowed"]
6	ME → SS	The ME does not set up the call	

ENVELOPE CALL CONTROL 3.4.1A

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Dialling number string   "9876"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (00F110)

        LAC   the location Area Code (0001)
        Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 3.4.1B

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Dialling number string "9876"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (001110)
        LAC   the location Area Code (0001)
        Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 3.4.1

Logically:

        Call control result   Not Allowed

Coding:

BER-TLV:	01	00

Expected Sequence 3.5 (CALL CONTROL BY SIM , set up a call in EF_{FDN} , Allowed with modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "9876"	
2	ME → SIM	ENVELOPE CALL CONTROL 3.5.1A or ENVELOPE CALL CONTROL 3.5.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 07	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 3.5.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up the call with data sent by the SIM	[Set up call to "3333"]

ENVELOPE CALL CONTROL 3.5.1A

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON   Unknown
            NPI   "ISDN / telephone numbering plan"
            Dialling number string "9876"
    Capability configuration parameters 1
            This parameter is optional. If present, the contents shall not be checked.
    Subaddress
            This parameter is optional. If present, the contents shall not be checked.
    Location Information
            MCC & MNC   the mobile country and network code (00F110)
            LAC   the location Area Code (0001)
            Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
            This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 3.5.1B

Logically:

    Device identities
            Source device: ME
            Destination device: SIM
    Address
            TON   Unknown
            NPI   "ISDN / telephone numbering plan"
            Dialling number string "9876"
    Capability configuration parameters 1
            This parameter is optional. If present, the contents shall not be checked.
    Subaddress
            This parameter is optional. If present, the contents shall not be checked.
    Location Information
            MCC & MNC   the mobile country and network code (001110)

| | | | LAC | | | | | the location Area Code (0001) | | | |
| | | | Cell ID | | | | | Cell Identity Value (0001) | | | |

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	89	67	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 3.5.1

Logically:

		Call control result	Allowed with modifications
	Address		
		TON	Unknown
		NPI	"ISDN / telephone numbering plan"
		Address value	"3333"

Coding:

BER-TLV:	02	05	86	03	81	33	33

27.22.6.3.5 Test requirement

The ME shall operate in the manner defined in expected sequences 3.1 to 3.5.

27.22.6.4 Support of Barred Dialling Number (BDN) service

27.22.6.4.1 Definition and applicability

See clause 3.2.2.

27.22.6.4.2 Conformance requirement

The ME shall support the CALL CONTROL facility as defined in:

- 3GPP TS 11.14 [15] clause 9.1.5.

27.22.6.4.3 Test purpose

To verify that, if Barred Dialling Number service is enabled, the ME checks the number entered through the MMI against EF_{BDN}.

To verify that, if the SIM responds with "not allowed", the ME does not set up the call.

To verify that, if the SIM responds with "allowed, no modification", the ME shall set up the call (or the supplementary service operation) as proposed.

To verify that, if the SIM responds with "allowed with modifications", the ME sets up the call in accordance with the response from the SIM. If the modifications involve changing the dialled number the ME does not re-check this modified number against the FDN list when FDN is enabled.

27.22.6.4.4 Method of tests

27.22.6.4.4.1 Initial conditions

The ME is connected to the SIM Simulator and the Systems Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The call control service is allocated and activated in the SIM Service Table.

Barred Dialling Number service is enabled.

Prior to the execution of expected sequence 4.4 the FDN service shall be enabled.

27.22.6.4.4.2 Procedure

Expected Sequence 4.1 (CALL CONTROL BY SIM , set up a call in EF_BDN)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "321"	
2	ME → SIM	ENVELOPE CALL CONTROL 4.1.1A	[Option A shall apply for GSM parameters]
		or	
		ENVELOPE CALL CONTROL 4.1.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 4.1.1	[Call control result: "Not Allowed"]
6	ME → SS	The ME does not set up the call	

ENVELOPE CALL CONTROL 4.1.1A

Logically:

    Device identities
        Source device: ME
        Destination device: SIM
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Dialling number string "321"
    Capability configuration parameters 1
        This parameter is optional. If present, the contents shall not be checked.
    Subaddress
        This parameter is optional. If present, the contents shall not be checked.
    Location Information
        MCC & MNC   the mobile country and network code (00F110)
        LAC   the location Area Code (0001)
        Cell ID   Cell Identity Value (0001)

    Capability configuration parameters 2
        This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	23	F1	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 4.1.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string "321"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	23	F1	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 4.1.1

Logically:

    Call control result   Not Allowed

Coding:

BER-TLV:	01	00

Expected Sequence 4.2 (CALL CONTROL BY SIM , set up a call not in EF$_{BDN}$, Allowed without modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "1234"	
2	ME → SIM	ENVELOPE CALL CONTROL 4.2.11A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 4.2.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 02	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 4.2.1	[Call control result: "Allowed without modifications"]
6	ME → SS	The ME sets up the call without modification	[Set up call to "1234"]

ENVELOPE CALL CONTROL 4.2.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string   "1234"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	43	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 4.2.1B

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string   "1234"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information

ETSI

MCC & MNC	the mobile country and network code (001110)	
LAC	the location Area Code (0001)	
Cell ID	Cell Identity Value (0001)	

Capability configuration parameters 2

This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	43	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 4.2.1

Logically:

Call control result   Allowed, no modifications

Coding:

BER-TLV:	00	00

Expected Sequence 4.3 (CALL CONTROL BY SIM , set up a call not in EF_BDN , Allowed with modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "1111"	
2	ME → SIM	ENVELOPE CALL CONTROL 4.3.1A or	[Option A shall apply for GSM parameters]
		ENVELOPE CALL CONTROL 4.3.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 07	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 4.3.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up the call with data sent by the SIM	[Set up call to "2222"]

ENVELOPE CALL CONTROL 4.3.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string "1111"
Capability configuration parameters 1

This parameter is optional. If present, the contents shall not be checked.

Subaddress

This parameter is optional. If present, the contents shall not be checked.

Location Information

MCC & MNC	the mobile country and network code (00F110)	
LAC	the location Area Code (0001)	
Cell ID	Cell Identity Value (0001)	

Capability configuration parameters 2

This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	11	11	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 4.3.1B

Logically:

Device identities

Source device:	ME
Destination device:	SIM

Address

TON	Unknown
NPI	"ISDN / telephone numbering plan"
Dialling number string	"1111"

Capability configuration parameters 1

This parameter is optional. If present, the contents shall not be checked.

Subaddress

This parameter is optional. If present, the contents shall not be checked.

Location Information

MCC & MNC	the mobile country and network code (001110)
LAC	the location Area Code (0001)
Cell ID	Cell Identity Value (0001)

Capability configuration parameters 2

This parameter is optional. If present, the contents shall not be checked.

Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	11	11	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 4.3.1

Logically:

Call control result	Allowed with modifications

Address

TON	Unknown		
NPI	"ISDN / telephone numbering plan"		
Address value	"2222"		

Coding:

BER-TLV:	02	05	86	03	81	22	22

Expected Sequence 4.4 (CALL CONTROL BY SIM , FDN and BDN enabled, set up a call in EF_FDN, Allowed with modifications)

Step	Direction	Message / Action	Comments
1	User → ME	The user sets up a call to "123"	
2	ME → SIM	ENVELOPE CALL CONTROL 4.4.1A	[Option A shall apply for GSM parameters]
		Or	
		ENVELOPE CALL CONTROL 4.4.1B	[Option B shall apply for PCS1900 parameters]
3	SIM → ME	9F 0A	
4	ME → SIM	GET RESPONSE	
5	SIM → ME	CALL CONTROL RESULT 4.4.1	[Call control result: "Allowed with modifications"]
6	ME → SS	The ME sets up the call with data sent by the SIM	[Set up call to "987654321"the ME does not re-check this modified number against the FDN list]

ENVELOPE CALL CONTROL 4.4.1A

Logically:

Device identities
    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string   "123"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (00F110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	F3	Note 2
	Note 3	13	07	00	F1	10	00	01	00	01	Note 4	

ENVELOPE CALL CONTROL 4.4.1B

Logically:

    Device identities

    Source device: ME
    Destination device: SIM
Address
    TON   Unknown
    NPI   "ISDN / telephone numbering plan"
    Dialling number string "123"
Capability configuration parameters 1
    This parameter is optional. If present, the contents shall not be checked.
Subaddress
    This parameter is optional. If present, the contents shall not be checked.
Location Information
    MCC & MNC   the mobile country and network code (001110)
    LAC   the location Area Code (0001)
    Cell ID   Cell Identity Value (0001)

Capability configuration parameters 2
    This parameter is optional. If present, the contents shall not be checked.
Coding:

BER-TLV:	D4	Note 1	82	02	82	81	86	03	81	21	F3	Note 2
	Note 3	13	07	00	11	10	00	01	00	01	Note 4	

Note 1: Length of BER-TLV is '12' plus the actual length of all the present optional SIMPLE-TLV data objects.

Note 2: Capability configuration parameters 1 may be present at this place. If present, it may take up several octets.

Note 3: Subaddress may be present at this place. If present, it may take up several octets.

Note 4: Capability configuration parameters 2 may be present at this place. If present, it may take up several octets.

CALL CONTROL RESPONSE 4.4.1

Logically:

    Call control result   Allowed with modifications
    Address
        TON   Unknown
        NPI   "ISDN / telephone numbering plan"
        Address value   "987654321"

Coding:

BER-TLV:	02	08	86	06	81	89	67	45	23	F1

27.22.6.4.5   Test requirement

The ME shall operate in the manner defined in expected sequences 4.1 to 4.4.

27.22.7   EVENT DOWNLOAD

27.22.7.1   MT Call Event

27.22.7.1.1   MT Call Event (normal)

27.22.7.1.1.1   Definition and applicability

See clause 3.2.2.

27.22.7.1.1.2   Conformance requirement

The ME shall support the EVENT: MT Call event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.1 and clause 12.25.

27.22.7.1.1.3   Test purpose

To verify that the ME informs the SIM the an Event: MT Call has occurred using the ENVELOPE (EVENT DOWNLOAD - MT Call) command.

27.22.7.1.1.4   Method of test

27.22.7.1.1.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.1.1.4.2   Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD -MT Call event)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SS → ME	CALL SET UP without CLI	[MT Call Set Up Without CLI]
6	ME → SIM	ENVELOPE: EVENT DOWNLOAD - MT Call 1.1.1	
7	SS → ME	CALL DISCONNECT	
8	SS → ME	CALL SET UP with CLI	[MT Call Set Up With CLI]
9	ME → SIM	ENVELOPE: EVENT DOWNLOAD - MT Call 1.1.2	
10	SS → ME	CALL DISCONNECT	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST

	Command qualifier:	'00'
Device identities		
	Source device:	SIM
	Destination device:	ME
Event list		
	Event 1:	MT call

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	00										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

Command details		
	Command number:	1
	Command type:	SET UP EVENT LIST
	Command qualifier:	'00'
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - MT CALL 1.1.1

Logically:

Event list:		MT call event
Device identities		
	Source device:	Network
	Destination device:	SIM
Transaction identifier:		
	Ti value:	0 (bit 5-7)
	Ti flag:	0 (bit 8)

Coding:

BER-TLV:	D6	0A	19	01	00	82	02	83	81	1C	01	00

EVENT DOWNLOAD - MT CALL 1.1.2

Logically:

Event list:		MT call event
Device identities		
	Source device:	Network
	Destination device:	SIM
Transaction identifier:		
	Ti value:	0 (bit 5-7)
	Ti flag:	0 (bit 8)
Address:		
	TON	Unknown
	NPI	"ISDN / telephone numbering plan"

Dialling number string   "9876"

Coding:

BER-TLV:	D6	0F	19	01	00	82	02	83	81	1C	01	00
	86	03	90	89	67							

27.22.7.1.1.5   Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.2   Call Connected Event

27.22.7.2.1   Call Connected Event (MT and MO call)

27.22.7.2.1.1   Definition and applicability

See clause 3.2.2.

27.22.7.2.1.2   Conformance requirement

The ME shall support the EVENT: Call Connected event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.2 and clause 12.25.

27.22.7.2.1.3   Test purpose

To verify that the ME informs the SIM the an Event: Call Connected has occurred using the ENVELOPE (EVENT DOWNLOAD -Call Connected) command.

27.22.7.2.1.4   Method of test

27.22.7.2.1.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.2.1.4.2   Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD -CALL CONNECTED)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[EVENT: Call Connected active]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SS → ME	SETUP	[MT Call] Ti = 0
6	USER → ME	Accept Call Set Up	
7	ME→SS	CONNECT	
8	ME → SIM	ENVELOPE: EVENT DOWNLOAD - Call Connected 1.1.1	
9	SS → ME	DISCONNECT	
10	USER → ME	Initiate Call to "123"	
11	ME → SS	SETUP	[MO Call] Ti = 0
12	SS → ME	CONNECT	
13	ME → SIM	ENVELOPE: EVENT DOWNLOAD - Call Connected 1.1.1	
14	USER → ME	End Call	
15	ME → SS	DISCONNECT	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Connected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	01										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - CALL CONNECTED 1.1.1

Logically:

Event list:	Call connected
Device identities	
Source device:	ME
Destination device:	SIM
Transaction identifier:	
Ti value:	0 (bit 5-7)
Ti flag:	1 (bit 8)

Coding:

BER-TLV:	D6	0A	19	01	01	82	02	82	81	1C	01	80

EVENT DOWNLOAD - CALL CONNECTED 1.1.2

Logically:

Event list:	Call connected
Device identities	
Source device:	Network
Destination device:	SIM
Transaction identifier:	
Ti value:	0 (bit 5-7)
Ti flag:	1 (bit 8)

Coding:

BER-TLV:	D6	0A	19	01	01	82	02	83	81	1C	01	80

27.22.7.2.1.5 Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.2.2 Call Connected Event (ME supporting SET UP CALL)

27.22.7.2.2.1 Definition and applicability

See clause 3.2.2.

27.22.7.2.2.2 Conformance requirement

Additionally the ME shall support the SET UP CALL Proactive SIM Command as defined in:

- 3GPP TS 11.14 [15] clause 11.2.2, clause 6.4.13 and clause 6.6.12.

27.22.7.2.2.3 Test purpose

To verify that the ME informs the SIM the an Event: Call Connected has occurred using the ENVELOPE (EVENT DOWNLOAD -Call Connected) command.

27.22.7.2.2.4   Method of test

27.22.7.2.2.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.2.2.4.2   Procedure

Expected Sequence 2.1 (EVENT DOWNLOAD -CALL CONNECTED, ME supporting SET UP CALL)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 2.1.1	[EVENT: Call Connected active]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 2.1.1	
5	SIM → ME	PROACTIVE COMMAND PENDING	
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: SET UP CALL 2.1.1	[SAT Call]
8	ME → USER	ME displays "+012340123456" during the user confirmation phase.	ME BEHAVIOUR: SET UP CALL
9	USER → ME	Confirm call set up	
10	ME → SS	SETUP	Ti=0
11	SS → ME	CONNECT	
12	ME → SIM	TERMINAL RESPONSE: SET UP CALL 2.1.1	
13	ME → SIM	ENVELOPE: CALL CONNECTED 2.1.1	

PROACTIVE COMMAND: SET UP EVENT LIST 2.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Call Connected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	01										

TERMINAL RESPONSE: SET UP EVENT LIST 2.1.1

Logically:

    Command details
        Command number: 1

Command type:	SET UP EVENT LIST
Command qualifier:	'00'
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

PROACTIVE COMMAND: SET UP CALL 2.1.1

Logically:

Command details	
Command number:	1
Command type:	SET UP CALL
Command qualifier:	Only if not currently busy on another call
Device identities	
Source device:	SIM
Destination device:	Network
Alpha identifier:	"+012340123456"
Address	
TON:	International
NPI:	"ISDN / telephone numbering plan"
Dialling number string	"012340123456"

Coding:

BER-TLV:	D0	21	81	03	01	10	00	82	02	81	83
	05	0D	2B	30	31	32	33	34	30	31	32
	33	34	35	36	86	07	91	10	32	04	21
	43	65									

TERMINAL RESPONSE: SET UP CALL 2.1.1

Logically:

Command details	
Command number:	1
Command type:	SET UP CALL
Command qualifier:	Only if not currently busy on another call
Device identities	
Source device:	ME
Destination device:	SIM
Result	
General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	10	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - CALL CONNECTED 2.1.1

Logically:

Event list:	Call connected
Device identities	
Source device:	Network

Destination device: SIM
Transaction identifier:
Ti value: 0 (bit 5-7)
Ti flag: 1 (bit 8)

Coding:

BER-TLV:	D6	0A	19	01	01	82	02	83	81	1C	01	80

27.22.7.2.2.5 Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.3 Call Disconnected Event

27.22.7.3.1 Call Disconnected Event

27.22.7.3.1.1 Definition and applicability

See clause 3.2.2.

27.22.7.3.1.2 Conformance requirement

The ME shall support the EVENT: Call Disconnected event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.3 and clause 12.25.

27.22.7.3.1.3 Test purpose

To verify that the ME informs the SIM the an Event: Call Disconnected has occurred using the ENVELOPE (EVENT DOWNLOAD -Call Disconnected) command.

27.22.7.3.1.4 Method of test

27.22.7.3.1.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.3.1.4.2　　　　Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD -CALL DISCONNECTED)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[EVENT: Call Disconnected active]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SS → ME	SETUP	[incoming call] Ti=0
6	USER → ME	Accept Call Set Up	
7	SS → ME	DISCONNECT	[MT DISCONNECT]
8	ME→ SIM	ENVELOPE: CALL DISCONNECTED 1.1.1	
9	SS → ME	SETUP	[incoming call] Ti=0
10	USER → ME	Accept Call Set Up	
11	SS → ME	RELEASE	[MT RELEASE]
12	ME→ SIM	ENVELOPE: CALL DISCONNECTED 1.1.1	
13	SS → ME	SETUP	[incoming call] Ti=0
14	USER → ME	Accept Call Set Up	
15	SS → ME	RELEASE COMPLETE	[MT RELEASE COMPLETE]
16	ME→ SIM	ENVELOPE: CALL DISCONNECTED 1.1.1	
17	SS → ME	SETUP	[incoming call] Ti=0
18	USER → ME	Accept Call Set Up	
19	USER → ME	End Call	
20	ME → SS	DISCONNECT	[MO DISCONNECT]
21	ME → SIM	ENVELOPE: CALL DISCONNECTED 1.1.2	
22	SS → ME	SETUP	[incoming call] Ti=0
23	USER → ME	Accept Call Set Up	
24	SS → ME	DISCONNECT	[MT DISCONNECT + CAUSE: normal call clearing]
25	ME→ SIM	ENVELOPE: CALL DISCONNECTED 1.1.3	
26	SS → ME	SETUP	Ti=0
27	USER → ME	Accept Call Set Up	
28	SS	TX POWER to XX	[RADIO LINK FAILURE]
29	ME→ SIM	ENVELOPE: CALL DISCONNECTED 1.1.4A or 1.1.4B	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

```
    Command details
        Command number:        1
        Command type:          SET UP EVENT LIST
        Command qualifier:     '00'
    Device identities
        Source device:         SIM
        Destination device:    ME
    Event list
```

Event 1: Call Disconnected

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	02										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP EVENT LIST
    Command qualifier: '00'
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - CALL DISCONNECTED 1.1.1

Logically:

Event list: Call Disconnected
Device identities
    Source device: Network
    Destination device: SIM
Transaction identifier:
    Ti value: 0 (bit 5-7)
    Ti flag: 0 (bit 8)
Cause:

Coding:

BER-TLV:	D6	0A	19	01	02	82	02	83	81	1C	01	00

EVENT DOWNLOAD - CALL DISCONNECTED 1.1.2

Logically:

Event list: Call Disconnected
Device identities
    Source device: ME
    Destination device: SIM
Transaction identifier:
    Ti value: 0 (bit 5-7)
    Ti flag: 1 (bit 8)

Coding:

BER-TLV:	D6	0A	19	01	01	82	02	82	81	1C	01	80

EVENT DOWNLOAD - CALL DISCONNECTED 1.1.3

Logically:

Event list:	Call Disconnected
Device identities	
Source device:	Network
Destination device:	SIM
Transaction identifier:	
Ti value:	0 (bit 5-7)
Ti flag:	0 (bit 8)
Cause:	normal call clearing

Coding:

BER-TLV:	D6	0E	19	01	01	82	02	83	81	1C	01	00
	9A	02	60	90								

EVENT DOWNLOAD - CALL DISCONNECTED 1.1.4A

Logically:

Event list:	Call Disconnected
Device identities	
Source device:	Network
Destination device:	SIM
Transaction identifier:	
Ti value:	0 (bit 5-7)
Ti flag:	1 (bit 8)
Cause:	radio link failure

Coding:

BER-TLV:	D6	0C	19	01	01	82	02	83	81	1C	01	80
	9A	00										

EVENT DOWNLOAD - CALL DISCONNECTED 1.1.4B

Logically:

Event list:	Call Disconnected
Device identities	
Source device:	Network
Destination device:	SIM
Transaction identifier:	
Ti value:	0 (bit 5-7)
Ti flag:	0 (bit 8)
Cause:	radio link failure

Coding:

BER-TLV:	D6	0C	19	01	01	82	02	83	81	1C	01	00
	9A	00										

27.22.7.3.1.5   Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.4   Location Status Event

27.22.7.4.1   Location Status Event (normal)

27.22.7.4.1.1   Definition and applicability

See clause 3.2.2.

27.22.7.4.1.2   Conformance requirement

The ME shall support the EVENT: Location Status event as defined in:

- 3GPP TS 11.14 [15] clause 11.4 and clause 6.4.16.

27.22.7.4.1.3   Test purpose

To verify that the ME informs the SIM that an Event: MM_IDLE state has occurred using the ENVELOPE (EVENT DOWNLOAD - Location Status) command.

27.22.7.4.1.4   Method of test

27.22.7.4.1.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01 ;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001;

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

Two cells are defined. Cell 1 has location area code 1 and cell 2 has location area code 2.

MS is in service on Cell 1.

27.22.7.4.1.4.2 Procedure

Expected Sequence 1.1(EVENT DOWNLOAD -LOCATION STATUS)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	
5	SS	Cell 2 is switched on and cell 1 is switched off	
6	ME	ME performs cell reselection to cell 2	
7	ME → SS	Location Updating Request	
8	SS → ME	Location updating accept	
9	ME → SIM	ENVELOPE: EVENT DOWNLOAD - Location Status 1.1.1 A or ENVELOPE: EVENT DOWNLOAD - Location Status 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters] [NOTE: The inclusion of the location information is optional: (If location status indicates normal status)

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Location status

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	03										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - LOCATION STATUS 1.1.1A

Logically:

Event list:	Location status
Device identities	
Source device:	ME
Destination device:	SIM
Location status:	normal service
Location Information	
MCC & MNC	the mobile country and network code (00F110)
LAC	the location Area Code (0002)
Cell ID	Cell Identity Value (0001)

Coding:

BER-TLV:	D6	13	19	01	02	82	02	82	81	1B	01	00
	13	07	00	F1	10	00	02	00	01			

EVENT DOWNLOAD - LOCATION STATUS 1.1.1B

Logically:

Event list:	Location status
Device identities	
Source device:	ME
Destination device:	SIM
Location status:	normal service
Location Information	
MCC & MNC	the mobile country and network code (001110)
LAC	the location Area Code (0002)
Cell ID	Cell Identity Value (0001)

Coding:

BER-TLV:	D6	13	19	01	02	82	02	82	81	1B	01	00
	13	07	00	11	10	00	02	00	01			

27.22.7.4.1.5 Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.5 User Activity Event

27.22.7.5.1 User Activity Event (normal)

27.22.7.5.1.1 Definition and applicability

See clause 3.2.2.

27.22.7.5.1.2 Conformance Requirement

The ME shall support the EVENT DOWNLOAD -USER ACTIVITY as defined in:

- 3GPP TS 11.14 [15] clause 5.2, clause 6.4.16, clause 6.8, clause 6.6.16, clause 6.11, clause 11, clause 11.5, clause 12.6 and clause 12.25.

27.22.7.5.1.3   Test purpose

To verify that the ME performed correctly the procedure of USER ACTIVITY EVENT.

27.22.7.5.1.4   Method of Test

27.22.7.5.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The ME screen shall be in its normal stand-by display.

27.22.7.5.1.4.2   Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD -USER ACTIVITY)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	[set up event list: event User Activity]
2	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[command performed successfully]
3	USER → ME	press any key	
4	ME → SIM	ENVELOPE EVENT DOWNLOAD -USER ACTIVITY 1.1.1	
5	USER → ME	press any key	check if no envelope Event Download-User activity sending to the SIM (this event is reported once)

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: RFU
    Device identities
        Source device: SIM
        Destination device: ME
    Event list   User Activity

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	04										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1

	Command type:	SET UP EVENT LIST
	Command qualifier:	RFU
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD -USER ACTIVITY 1.1.1

Logically:

Event list	User Activity
Device identities	
Source device:	ME
Destination device:	SIM

Coding:

BER-TLV:	D6	07	19	01	04	82	02	82	81

27.22.7.5.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.7.6 Idle screen available event

27.22.7.6.1 Idle Screen Available (normal)

27.22.7.6.1.1 Definition and applicability

See clause 3.2.2.

27.22.7.6.1.2 Conformance requirement

The ME shall support the EVENT: IDLE SCREEN AVAILABLE event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.1 and clause 12.25.

27.22.7.6.1.3 Test purpose

To verify that the ME informs the SIM the an Event: Idle Screen Available has occurred using the ENVELOPE (EVENT DOWNLOAD - IDLE SCREEN AVAILABLE) command.

27.22.7.6.1.4 Method of test

27.22.7.6.1.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.7.6.1.4.2   Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD - IDLE SCREEN AVAILABLE)

Step	Direction	MESSAGE / Action	Comments
1	USER → ME	Select screen other than the ME idle screen	
2	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	[set up event list: idle screen available]
3	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[command performed successfully]
4	USER → ME	Select ME idle screen	
5	ME → SIM	ENVELOPE: IDLE SCREEN AVAILABLE 1.1.1	
6	USER → ME	Select ME idle screen	check if no envelope Event Download- idle screen sending to the SIM (this event is reported once)

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   idle screen available

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	05										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - IDLE SCREEN AVAILABLE 1.1.1

Logically:

    Event list   Idle screen available

Device identities
      Source device: Display
      Destination device: SIM

Coding:

BER-TLV:	D6	07	19	01	05	82	02	02	81

27.22.7.6.1.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.7.7   Card reader status event

27.22.7.7.1   Card Reader Status (normal)

27.22.7.7.1.1   Definition and applicability

See clause 3.2.2.

27.22.7.7.1.2   Conformance requirement

The ME shall support the EVENT: Call Card Reader Status event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 4.9, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.7, clause 12.25, clause 12.33, annex G, annex H, clause 12.25 and clause 12.7.

27.22.7.7.1.3   Test purpose

To verify that the ME informs the SIM the an Event: Card Reader Status has changed using the ENVELOPE (EVENT DOWNLOAD - Card Reader Status) command.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen.

27.22.7.7.1.4   Method of test

27.22.7.7.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.7.1.4.2   Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD, Card reader status, Card reader 1, card reader attached, no card inserted)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND 1.1.1 PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[EVENT: Card Reader Status]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[Successfully]
5	User → ME	Insert a card in Reader	
6	ME → SIM	ENVELOPE: CARD READER STATUS 1.1.1a or ENVELOPE: CARD READER STATUS 1.1.1b Or ENVELOPE: CARD READER STATUS 1.1.1c Or ENVELOPE: CARD READER STATUS 1.1.1d	
7	User → ME	Remove the card from Reader	
8	ME → SIM	ENVELOPE: CARD READER STATUS 1.1.2a Or ENVELOPE: CARD READER STATUS 1.1.2b Or ENVELOPE: CARD READER STATUS 1.1.2c Or ENVELOPE: CARD READER STATUS 1.1.2d	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Card Reader Status

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82
	99	01	06								

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1

	Command type:	SET UP EVENT LIST
	Command qualifier:	'00'
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.1a

Logically:

Event list		
	Event 1:	Card Reader Status
Device identities		
	Source device:	ME
	Destination device:	SIM
Card reader status		
	Identity of card reader:	01
	Card reader removable:	Yes
	Card reader present:	Yes
	Card reader ID-1 size:	Yes
	Card present in reader:	Yes
	Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	79

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.1b

Logically:

Event list		
	Event 1:	Card Reader Status
Device identities		
	Source device:	ME
	Destination device:	SIM
Card reader status		
	Identity of card reader:	01
	Card reader removable:	Yes
	Card reader present:	Yes
	Card reader ID-1 size:	No
	Card present in reader:	Yes
	Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	59

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.1c

Logically:

Event list		
	Event 1:	Card Reader Status

Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: No
    Card reader present: Yes
    Card reader ID-1 size: Yes
    Card present in reader: Yes
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	71

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.1d

Logically:

Event list
    Event 1:   Card Reader Status
Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: No
    Card reader present: Yes
    Card reader ID-1 size: No
    Card present in reader: Yes
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	51

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.2a

Logically:

Event list
    Event 1:   Card Reader Status
Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: Yes
    Card reader present: Yes
    Card reader ID-1 size: Yes
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	39

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.2b

Logically:

Event list
    Event 1:   Card Reader Status
Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: Yes
    Card reader present: Yes
    Card reader ID-1 size: No
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	19

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.2c

Logically:

Event list
    Event 1:   Card Reader Status
Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: No
    Card reader present: Yes
    Card reader ID-1 size: Yes
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	31

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 1.1.2d

Logically:

Event list
    Event 1:   Card Reader Status
Device identities
    Source device: ME
    Destination device: SIM
Card reader status
    Identity of card reader: 01
    Card reader removable: No
    Card reader present: Yes
    Card reader ID-1 size: No
    Card present in reader: No
    Card powered: No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	11

27.22.7.7.1.5 Test requirement

The behaviour of the test is as defined in 'Expected Sequence 1.1'.

27.22.7.7.2 Card Reader Status(detachable card reader)

27.22.7.7.2.1 Definition and applicability

See clause 3.2.2.

27.22.7.7.2.2 Conformance requirement

The ME shall support the EVENT: Call Card Reader Status event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 4.9, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.7, clause 12.25, clause 12.33, annex G, annex H, clause 12.25 and clause 12.7.

27.22.7.7.2.3 Test purpose

To verify that the ME informs the SIM the an Event: Card Reader Status has changed using the ENVELOPE (EVENT DOWNLOAD - Card Reader Status) command.

The ME-Manufacturer can assign the card reader identifier from 0 to 7.

This test applies for MEs with only one additional card reader.

In this particular case the card reader identifier 1 is chosen as an example.

27.22.7.7.2.4 Method of test

27.22.7.7.2.4.1 Initial conditions

The ME is connected to the SIM Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.7.2.4.2 Procedure

Expected Sequence 2.1 (EVENT DOWNLOAD, Detachable reader, Card reader 1, detachable card reader not attached, no card inserted)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND 1.1.1PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[SET UP EVENT: Card Reader Status]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[Successfully]
5	User → ME	Attach the Card Reader to ME	
6	ME → SIM	ENVELOPE: CARD READER STATUS 2.1.1a Or ENVELOPE: CARD READER STATUS 2.1.1b	
7	User → ME	Detach the Card Reader from ME	
8	ME → SIM	ENVELOPE: CARD READER STATUS 2.1.2a Or ENVELOPE: CARD READER STATUS 2.1.2b	

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 2.1.1a

Logically:

Event list	
Event 1:	Card Reader Status
Device identities	
Source device:	ME
Destination device:	SIM
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	Yes
Card reader ID-1 size:	Yes
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	39

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 2.1.1b

Logically:

Event list	
Event 1:	Card Reader Status
Device identities	
Source device:	ME
Destination device:	SIM
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	Yes
Card reader ID-1 size:	No
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	19

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 2.1.2a

Logically:

Event list	
Event 1:	Card Reader Status
Device identities	
Source device:	ME
Destination device:	SIM
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	No
Card reader ID-1 size:	Yes
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	29

ENVELOPE: EVENT DOWNLOAD CARD READER STATUS 2.1.2b

Logically:

Event list	
Event 1:	Card Reader Status
Device identities	
Source device:	ME
Destination device:	SIM
Card reader status	
Identity of card reader:	01
Card reader removable:	Yes
Card reader present:	No
Card reader ID-1 size:	No
Card present in reader:	No
Card powered:	No

Coding:

BER-TLV:	D6	0A	99	01	06	82	02	82	81	A0	01	09

27.22.7.7.1.5 Test requirement

The behaviour of the test is as defined in 'Expected Sequence 2.1'.

27.22.7.8 Language selection event

27.22.7.8.1 Language selection event (normal)

27.22.7.8.1.1 Definition and applicability

See clause 3.2.2.

27.22.7.8.1.2 Conformance requirement

The ME shall support the EVENT: LANGUAGE SELECTION event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.8 and clause 12.25.

27.22.7.8.1.3 Test purpose

To verify that the ME informs the SIM the an Event: Language selection has occurred using the ENVELOPE (EVENT DOWNLOAD - LANGUAGE SELECTION) command.

27.22.7.8.1.4 Method of test

27.22.7.8.1.4.1 Initial conditions

The ME is connected to the SIM Simulator and the System Simulator.

The elementary files are coded as SIM Application Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The current language shall have been set to English. Another language has to be supported, German is an example.

27.22.7.8.1.4.2 Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD - LANGUAGE SELECTION)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	[set up event list: language selection]
2	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[command performed successfully]
3	USER → ME	Change the language to German.	
4	ME → SIM	ENVELOPE: LANGUAGE SELECTION 1.1.1	
5	USER → ME	Change the language to English	
6	ME → SIM	ENVELOPE: LANGUAGE SELECTION 1.1.2	check if an envelope Event Download-language selection is sending again to the SIM (this event is continuously reported)

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP EVENT LIST
    Command qualifier: '00'
Device identities
    Source device: SIM
    Destination device: ME
Event list
    Event 1: language selection

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82	99
	01	07										

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

Command details
    Command number: 1
    Command type: SET UP EVENT LIST
    Command qualifier: '00'
Device identities
    Source device: ME
    Destination device: SIM
Result
    General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

EVENT DOWNLOAD - LANGUAGE SELECTION 1.1.1

Logically:

Event list Language selection
Device identities

	Source device:	ME
	Destination device:	SIM
Language		
	Language	'de'→64 65 (German)

Coding:

| BER-TLV: | D6 | 0B | 19 | 01 | 07 | 82 | 02 | 82 | 81 | 2D | 02 | 64 |
| | 65 | | | | | | | | | | | |

EVENT DOWNLOAD - LANGUAGE SELECTION 1.1.2

Logically:

Event list	Language selection
Device identities	
Source device:	ME
Destination device:	SIM
Language	
Language	'en'→65 6E (English)

Coding:

| BER-TLV: | D6 | 0B | 19 | 01 | 07 | 82 | 02 | 82 | 81 | 2D | 02 | 65 |
| | 6E | | | | | | | | | | | |

27.22.7.8.1.5   Test requirement

The ME shall operate in the manner defined in expected sequence 1.1.

27.22.7.9   Browser termination event

27.22.7.9.1   Browser termination (normal)

27.22.7.9.1.1   Definition and applicability

This test is only applicable to ME's that support the EVENT: browser termination event driven information.

27.22.7.9.1.2   Conformance requirement

The ME shall support the EVENT: Browser termination event as defined in:

- 3GPP TS 11.14 [15] clause 4.7, clause 5.2, clause 6.4.16, clause 6.8, clause 11, clause 11.9, clause 12.25, clause 12.51, annex G and clause 12.7.

27.22.7.9.1.3   Test purpose

To verify that the ME informs the SIM of an Event: Browser termination using the ENVELOPE (EVENT DOWNLOAD - Browser Termination) command.

This test applies for MEs which have a browser.

27.22.7.9.1.4   Method of test

27.22.7.9.1.4.1   Initial conditions

The ME is connected to the SIM Simulator.

The ME shall be powered on and perform the PROFILE DOWNLOAD procedure.

27.22.7.9.1.4.2 Procedure

Expected Sequence 1.1 (EVENT DOWNLOAD - Browser termination)

Step	Direction	Message / Action	Comments
1	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1 PENDING	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[EVENT: Browser termination Status]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[Successfully]
5	User→ME	Launch the browser , go to an URL, then stop the session and the browser.	
6	ME→ SIM	ENVELOPE: BROWSER TERMINATION 1.1.1	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1:   Browser termination

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82
	99	01	08								

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

ENVELOPE: EVENT DOWNLOAD BROWSER TERMINATION 1.1.1

Logically:

    Event list
        Event 1:   Browser termination

Device identities
     Source device: ME
     Destination device: SIM
Browser termination cause: User termination

Coding:

BER-TLV:	D6	0A	99	01	08	82	02	82	81	B4	01	00

27.22.7.10   Data available event

27.22.7.10.1   Definition and applicability

See clause 3.2.2.

27.22.7.10.2   Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

Additionally the ME shall support ENVELOPE (EVENT DOWNLOAD - Data available).

27.22.7.10.3   Test purpose

To verify that the ME shall send an ENVELOPE (EVENT DOWNLOAD - Data available) to the SIM after the ME receives a packet of data from the server by the BIP channel previously opened.

27.22.7.10.4   Method of test

27.22.7.10.4.1   Initial conditions

The ME is connected to the SIM Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure. The SIM must have sent the SET UP EVENT LIST to the ME to supply a set of events (event Data available).

For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

   Precedence Class: 02
   Delay Class: 04
   Reliability Class: 05
   Peak throughput class: 05
   Mean throughput class: 16
   Packet data protocol: 02 (IP)

GPRS Parameters

   Network access name: TestGp.rs
   User login: UserLog

User password: UserPwd

SIM/ME interface transport level

Transport format: UDP
Port number: 44444
Data destination address 01.01.01.01

27.22.7.10.4.2 Procedure

Expected sequence 1.1 (EVENT DOWNLOAD - Data available)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	[Command performed successfully]
4	SS → ME	Data sent through the BIP channel	
5	ME → SIM	ENVELOPE 1.1.1 (Event-Data Available)	

ENVELOPE: EVENT DOWNLOAD - Data available 1.1.1

Logically:

Event list
     Event: Data available
Device identities
     Source device: ME
     Destination device: SIM
Channel status
     Channel status: Channel 1 open, link established
Channel Data Length
     Channel data length: 8 Bytes available in Rx buffer

Coding:

BER-TLV:	D6	0E	99	01	09	82	02	82	81	B8	02	81
	00	B7	01	08								

27.22.7.11 Channel Status event

27.22.7.11.1 Definition and applicability

See clause 3.2.2.

27.22.7.11.2 Conformance requirements

The ME shall support the class "e" commands as defined in:

- 3GPP TS 11.14 [15].

Additionally the ME shall support ENVELOPE (EVENT DOWNLOAD - Channel Status).

27.22.7.11.3   Test purpose

To verify that the ME shall send an ENVELOPE (EVENT DOWNLOAD - Channel Status) to the SIM after the link dropped between the NETWORK and the ME.

27.22.7.11.4   Method of test

27.22.7.11.4.1   Initial conditions

The ME is connected to the SIM Simulator and the System Simulator. The elementary files are coded as Toolkit default.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

For MEs supporting BIP related to CSD (i.e condition C113 in table B.1), the PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A.

For MEs supporting BIP related to GPRS in UDP (i.e condition C121 in table B.1), The PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B shall be executed to open a channel successfully at the beginning of the test. The corresponding Terminal Response shall be TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B.

The following Bearer Parameters used are those defined in the default Test PDP context3, as specified in TS 51.010-1 [12], for test cases using packet services:

Bearer Parameters

    Precedence Class: 02
    Delay Class: 04
    Reliability Class: 05
    Peak throughput class: 05
    Mean throughput class: 16
    Packet data protocol: 02 (IP)

GPRS Parameters

    Network access name: TestGp.rs
    User login: UserLog
    User password: UserPwd

SIM/ME interface transport level

    Transport format: UDP
    Port number: 44444
    Data destination address 01.01.01.01

27.22.7.11.4.2 Procedure

Expected sequence 1.1 (EVENT DOWNLOAD - Channel Status on a link dropped)

Step	Direction	MESSAGE / Action	Comments
1	SIM → ME	PROACTIVE COMMAND PENDING: SET UP EVENT LIST 1.1.1	
2	ME → SIM	FETCH	
3	SIM → ME	PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1	[EVENT: channel status]
4	ME → SIM	TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1	[command performed successfully]
5	SIM → ME	PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND PENDING: OPEN CHANNEL 1.1.1B	See initial conditions
6	ME → SIM	FETCH	
7	SIM → ME	PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A or PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B	
8	ME → SS	SETUP CALL	
9	SS → ME	CONNECTED	
10	ME → SIM	TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A or TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B	[Command performed successfully]
11	NETWORK → ME	Link dropped	
12	ME → SIM	ENVELOPE 1.1.1 (Event-Channel Status)	

PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: SIM
        Destination device: ME
    Event list
        Event 1: Channel Status

Coding:

BER-TLV:	D0	0C	81	03	01	05	00	82	02	81	82
	99	01	0A								

TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SET UP EVENT LIST
        Command qualifier: '00'
    Device identities
        Source device: ME
        Destination device: SIM
    Result

General Result: Command performed successfully

Coding:

BER-TLV:	81	03	01	05	00	82	02	82	81	83	01	00

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1A

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: SIM
        Destination device: ME
    Address
        TON: International number
        NPI: ISDN / telephone numbering plan
        Dialling number string "112233445566778"
    Bearer description
        Bearer type: CSD
        Bearer parameter
            Data rate: 9600bps V.32
            Bearer service: data circuit asynchronous UDI
            Connection element: non-transparent
    Buffer size   1000

Coding:

BER-TLV:	D0	1E	81	03	01	40	01	82	02	81	82	86
	09	91	11	22	33	44	55	66	77	F8	B5	04
	01	07	00	01	B9	02	03	E8				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1A

Logically:

    Command details
        Command number: 1
        Command type: OPEN CHANNEL
        Command qualifier: immediate link establishment
    Device identities
        Source device: ME
        Destination device: SIM
    Result
        General Result: Command performed successfully
    Channel status   Channel identifier 1 and link established
    Bearer description
        Bearer type: CSD
        Bearer parameter
            Data rate: 9600bps V.32
            Bearer service: data circuit asynchronous
            Connection element: non-transparent
    Buffer size   1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00

B8	02	81	01	B5	04	01	07	00	01	B9	02
03	E8										

PROACTIVE COMMAND: OPEN CHANNEL 1.1.1B

Logically:

```
Command details
      Command number:       1
      Command type:         OPEN CHANNEL
      Command qualifier:    immediate link establishment
Device identities
      Source device:        SIM
      Destination device:   ME
Bearer
      Bearer type:          GPRS
      Bearer parameter:
            Precedence Class: 02
            Delay Class:      04
            Reliability Class: 05
            Peak throughput class:    05
            Mean throughput class:    16
            Packet data protocol:  02 (IP)
Buffer
      Buffer size:          1000
Text String:                UserLog  (User login)
Text String:                UserPwd (User password)
SIM/ME interface transport level
      Transport format:      UDP
      Port number:          44444
Data destination address    01.01.01.01
```

Coding:

BER-TLV:	D0	36	81	03	01	40	01	82	02	81	82	35
	07	02	02	04	05	05	10	02	39	02	03	E8
	0D	08	F4	55	73	65	72	4C	6F	67	0D	08
	F4	55	73	65	72	50	77	64	3C	03	01	AD
	9C	3E	05	21	01	01	01	01				

TERMINAL RESPONSE: OPEN CHANNEL 1.1.1B

Logically:

```
Command details
      Command number:       1
      Command type:         OPEN CHANNEL
      Command qualifier:    immediate link establishment
Device identities
      Source device:        ME
      Destination device:   SIM
Result
      General Result:        Command performed successfully
Channel status             Channel identifier 1 and link established or PDP context activated
Bearer description
      Bearer type:          GPRS
      Bearer parameter:
            Precedence Class: 02
            Delay Class:      04
```

           Reliability Class: 05
           Peak throughput class: 05
           Mean throughput class: 16
           Packet data protocol: 02 (IP)
   Buffer
           Buffer size: 1000

Coding:

BER-TLV:	81	03	01	40	01	82	02	82	81	83	01	00
	38	02	81	00	35	07	02	02	04	05	05	10
	02	39	02	03	E8							

ENVELOPE: EVENT DOWNLOAD - Channel Status 1.1.1

Logically:

   Event list
           Event: Channel Status
   Device identities
           Source device: ME
           Destination device: SIM
   Channel status
           Channel status: Channel 1, link dropped

Coding:

BER-TLV:	D6	0B	99	01	09	82	02	82	81	B8	02	01
	05											

27.22.8 MO SHORT MESSAGE CONTROL BY SIM

27.22.8.1 Definition and applicability

See clause 3.2.2.

27.22.8.2 Conformance requirement

The ME shall support the MO SEND SHORT MESSAGE CONTROL facility as defined in:

- 3GPP TS 11.14 [15] clause 9.2.

The ME shall also support the SEND SMS facitily as specified in

- 3GPP TS 11.14 [15] clause 6.4.10

27.22.8.3 Test purpose

To verify that for all SMS sending attempts, even those resulting from a SEND SHORT MESSAGE proactive SIM command, the ME shall first pass the RP_destination_address of the service center and the TP_Destination_Address to the SIM, using the ENVELOPE (MO Short Message CONTROL).

To verify that if the SIM responds with '90 00', the ME shall send the SMS with the address unchanged.

To verify that if the SIM responds with '93 00', the ME shall not send the SMS and may retry the command.

To verify that if the SIM responds with '9F XX', the ME shall use the GET RESPONSE command to get the response data. The response data from the SIM shall indicate to the ME whether to send the SM as proposed, not send the SM, send the SM using the data supplied by the SIM.

To verify that, in the case where the initial SM request results from a proactive SEND SHORT MESSAGE, if the MO SMS CONTROL result is "not allowed" or "allowed with modifications", the ME shall inform the SIM using TERMINAL RESPONSE "interaction with call control by SIM or MO short message control by SIM, action not allowed".

27.22.8.4   Method of tests

27.22.8.4.1   Initial conditions

The ME is connected to the System Simulator and the SIM Simulator.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

The MO SMS control service is enabled.

The SMS service center address in the ME shall be set to "+112233445566778" prior to the execution of the tests.

The GSM parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001;

The PCS 1900 parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 011;

- Location Area Code (LAC) = 0001;

- Cell Identity value = 0001.

27.22.8.4.2   Procedure

Expected Sequence 1.1 (MO SM CONTROL BY SIM , with Proactive command, Allowed, no modification')

Step	Direction	Message / Action	Comments
1	SIM -> ME	**PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.1.1**	
2	ME -> SIM	**FETCH**	
3	SIM -> ME	**PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1**	
4	ME -> USER	**Display "Send SM"**	**[Alpha Identifier]**
5	ME -> SIM	ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1A Or ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
6	SIM -> ME	**9F 02**	
7	ME -> SIM	**GET RESPONSE**	
8	SIM -> ME	**MO SMS CONTROL RESULT 1.1.1**	**["Allowed, no modification"]**
9	ME -> SS	**Send SMS-PP Message 1.1**	**[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.1 without modification]**
10	SS -> ME	**SMS RP-ACK**	
11	ME -> SIM	**TERMINAL RESPONSE: SEND SHORT MESSAGE 1.1.1**	

PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1

Logically:

    Command details
        Command number: 1
        Command type: SEND SHORT MESSAGE
        Command qualifier: packing not required
    Device identities
        Source device: SIM
        Destination device: Network
        Alpha identifier: "Send SM"
    Address
        TON: International number
        NPI: "ISDN / telephone numbering plan"
        Dialling number string "112233445566778"
    SMS TPDU
        TP-MTI   SMS-SUBMIT
        TP-RD   Instruct the SC to accept an SMS-SUBMIT for a SM
        TP-VPF   TP-VP field not present
        TP-RP   TP-Reply-Path is not set in this SMS-SUBMIT
        TP-UDHI   The TP-UD field contains only the short message
        TP-SRR   A status report is not requested
        TP-MR   "00"
        TP-DA
        TON   International number
        NPI   "ISDN / telephone numbering plan"
        Address value   "012345678"
        TP-PID   Short message type 0
        TP-DCS
            Message coding   8-bit data
            Message class   class 0
        TP-UDL   12

TP-UD		"Test Message"									

Coding:

BER-TLV:	D0	37	81	03	01	13	00	82	02	81	83	85
	07	53	65	6E	64	20	53	4D	86	09	91	11
	22	33	44	55	66	77	F8	8B	18	01	00	09
	91	10	32	54	76	F8	40	F4	0C	54	65	73
	74	20	4D	65	73	73	61	67	65			

SMS-PP (SEND SHORT MESSAGE) Message 1.1

Logically:

SMS TPDU
TP-MTI		SMS-SUBMIT
TP-RD		Instruct the SC to accept an SMS-SUBMIT for a SM
TP-VPF		TP-VP field not present
TP-RP		TP-Reply-Path is not set in this SMS-SUBMIT
TP-UDHI		The TP-UD field contains only the short message
TP-SRR		A status report is not requested
TP-MR		"00"
TP-DA		
	TON	International number
	NPI	"ISDN / telephone numbering plan"
	Address value	"012345678"
TP-PID		Short message type 0
TP-DCS		
	Message coding	8-bit data
	Message class	class 0
TP-UDL		12
TP-UD		"Test Message"

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F8	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

ENVELOPE MO SHORT MESSAGE CONTROL 1.1.1A

Logically:

Device identities
Source device:	ME
Destination device:	SIM

RP Destination Address
TON:	International
NPI:	"ISDN / telephone numbering plan" or "unknown"
Dialling number string	"112233445566778"

TP Destination Address
TON:	International
NPI:	"ISDN / telephone numbering plan" or "unknown"
Dialling number string	"012345678"

Location Information
MCC & MNC	the mobile country and network code (00F110)
LAC	the location Area Code (0001)
Cell ID	Cell Identity Value (0001)

Coding:

BER-TLV:	D5	20	02	02	82	81	06	09	91	11	22
	33	44	55	66	77	F8	06	06	91	10	32
	54	76	F8	13	07	00	F1	10	00	01	00
	01										

ENVELOPE MO SHORT MESSAGE CONTROL 1.1.1B

Logically:

Device identities		
	Source device:	ME
	Destination device:	SIM
RP Destination Address		
	TON:	International
	NPI:	"ISDN / telephone numbering plan" or "unknown"
	Dialling number string	"112233445566778"
TP Destination Address		
	TON:	International
	NPI:	"ISDN / telephone numbering plan" or "unknown"
	Dialling number string	"012345678"
Location Information		
	MCC & MNC	the mobile country and network code (001110)
	LAC	the location Area Code (0001)
	Cell ID	Cell Identity Value (0001)

Coding:

BER-TLV:	D5	20	02	02	82	81	06	09	91	11	22
	33	44	55	66	77	F8	06	06	91	10	32
	54	76	F8	13	07	00	11	10	00	01	00
	01										

MO SHORT MESSAGE CONTROL RESULT 1.1.1

Logically:

MO Short Message control result : '00' = Allowed, no modification

Coding:

BER-TLV:	00	00

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.1.1

Logically:

Command details		
	Command number:	1
	Command type:	SEND SHORT MESSAGE
	Command qualifier:	packing not required
Device identities		
	Source device:	ME
	Destination device:	SIM
Result		
	General Result:	Command performed successfully

Coding:

BER-TLV:	81	03	01	13	00	82	02	82	81	83	01	00

Expected Sequence 1.2 (MO SM CONTROL BY SIM , with user SMS, Allowed, no modification')

Step	Direction	Message / Action	Comments
1	USER -> ME	The user makes a SMS with the user data "Test Message" and sends it to +012345678.	[The data entered and the ME settings shall lead to the same SMS-TPDU as defined in SMS-PP (SEND SHORT MESSAGE) Message 1.1.
2	ME -> SIM	ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM -> ME	9F 02	
4	ME -> SIM	GET RESPONSE	
5	SIM -> ME	MO SHORT MESSAGE CONTROL RESULT 1.1.1	["Allowed, no modification"]
6	ME -> SS	Send SMS-PP Message 1.1	[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.1 without modification]
7	SS -> ME	SMS RP-ACK	

Expected Sequence 1.3 (MO SM CONTROL BY SIM , with Proactive command, Not allowed')

Step	Direction	Message / Action	Comments
1	SIM -> ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.1.1	
2	ME -> SIM	FETCH	
3	SIM -> ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1	
4	ME -> USER	Display "Send SM"	[Alpha Identifier]
5	ME -> SIM	ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
6	SIM -> ME	9F 02	
7	ME -> SIM	GET RESPONSE	
8	SIM -> ME	MO SHORT MESSAGE CONTROL RESULT 1.3.1	["not Allowed"]
9	ME -> SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.3.1	[Permanent Problem - Interaction with Call Control or MO short message control by SIM]
10	ME→ SS	The ME does not send the Short Message	

MO SHORT MESSAGE CONTROL RESULT 1.3.1

Logically:

       MO Short Message control result : '01' = Not Allowed

Coding:

BER-TLV:	01	00

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.3.1

Logically:

       Command details

	Command number:	01	
	Command Type:	SEND SHORT MESSAGE	
	SMS Packing Required:	Yes	
Device identities			
	Source device:	ME	
	Destination device:	SIM	
Result			
	General Result:	Interaction with call control or MO-SM by SIM permanent problem	
Additional information:	Action not allowed		

Coding:

BER-TLV:	81	03	01	13	01	82	02	82	81	83	02	39
	01											

Expected Sequence 1.4 (MO SM CONTROL BY SIM , with user SMS, Not allowed ')

Step	Direction	Message / Action	Comments
1	USER -> ME	The user makes a SMS with the user data "Test Message" and sends it to +012345678.	[The data entered and the ME settings shall lead to the same SMS-TPDU as defined in SMS-PP (SEND SHORT MESSAGE) Message 1.1.
2	ME -> SIM	ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM -> ME	9F 02	
4	ME -> SIM	GET RESPONSE	
5	SIM -> ME	MO SM CONTROL RESULT 1.3.1	["Not allowed"]
6	ME → SS	The ME does not send the Short Message	

Expected Sequence 1.5 (MO SM CONTROL BY SIM , with Proactive command, Allowed with modifications')

Step	Direction	Message / Action	Comments
1	SIM -> ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.1.1	
2	ME -> SIM	FETCH	
3	SIM -> ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1	Send SMS to "+012345678"
4	ME -> USER	Display "Send SM"	[Alpha Identifier]
5	ME -> SIM	ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
6	SIM -> ME	9F XX	9F 14
7	ME -> SIM	GET RESPONSE	
8	SIM -> ME	MO SM CONTROL RESULT 1.5.1	["Allowed with modifications"]
9	ME -> SS	Send SMS-PP Message 1.5	[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.5 with the data provided by the SIM to the changed Service Center Adress "+112233445566779"]
10	SS -> ME	SMS RP-ACK	
11	ME -> SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.5.1	

ETSI

MO SHORT MESSAGE CONTROL RESULT 1.5.1

Logically:
MO Short Message control result : '02' = Allowed with modifications

RP Destination_Address of the Service Center
TON: International
NPI: "ISDN / telephone numbering plan" or "unknown"
Dialling number string: "112233445566779"
TP Destination Address
TON: International
NPI: "ISDN / telephone numbering plan" or "unknown"
Dialling number string: "012345679"

Coding:

BER-TLV:	02	13	86	09	91	11	22	33	44	55	66
	77	F9	86	06	91	10	32	54	76	F9	

SMS-PP (SEND SHORT MESSAGE) Message 1.5

Logically:

SMS TPDU

TP-MTI	SMS-SUBMIT	
TP-RD	Instruct the SC to accept an SMS-SUBMIT for a SM	
TP-VPF	TP-VP field not present	
TP-RP	TP-Reply-Path is not set in this SMS-SUBMIT	
TP-UDHI	The TP-UD field contains only the short message	
TP-SRR	A status report is not requested	
TP-MR	"00"	
TP-DA		
TON	International number	
NPI	"ISDN / telephone numbering plan"	
Address value	"012345679"	
TP-PID	Short message type 0	
TP-DCS		
Message coding	8-bit data	
Message class	class 0	
TP-UDL	12	
TP-UD	"Test Message"	

Coding:

BER-TLV:	01	00	09	91	10	32	54	76	F9	40	F4	0C
	54	65	73	74	20	4D	65	73	73	61	67	65

TERMINAL RESPONSE: SEND SHORT MESSAGE 1.5.1

Logically:

Command details

      Command number: 01
      Command Type: SEND SHORT MESSAGE
      SMS Packing Required: Yes

Device identities

      Source device: ME
      Destination device: SIM

Result

      General Result: Command performed, but modified by call control by SIM

Coding:

BER-TLV:	81	03	01	13	01	82	02	82	81	83	01	05

Expected Sequence 1.6 (MO SM CONTROL BY SIM , with user SMS, Allowed with modifications')

Step	Direction	Message / Action	Comments
1	USER -> ME	The user makes a SMS with the user data "Test Message" and sends it to +012345678.	[The data entered and the ME settings shall lead to the same SMS-TPDU as defined in SMS-PP (SEND SHORT MESSAGE) Message 1.1.
2	ME -> SIM	ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE: MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM -> ME	9F XX	
4	ME -> SIM	GET RESPONSE	
5	SIM -> ME	MO SM CONTROL RESULT 1.5.1	["Allowed with modifications"]
6	ME-> SS	Send SMS-PP Message 1.5	[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1. 5 with the data provided by the SIM] to the changed Service Center Adress "+112233445566779"
7	SS -> ME	SMS RP-ACK	

Expected Sequence 1.7 (MO SM CONTROL BY SIM , with Proactive command, the SIM responds with '90 00', Allowed, no modification)

Step	Direction	Message / Action	Comments
1	SIM -> ME	PROACTIVE COMMAND PENDING: SEND SHORT MESSAGE 1.1.1	
2	ME -> SIM	FETCH	
3	SIM -> ME	PROACTIVE COMMAND: SEND SHORT MESSAGE 1.1.1	Send SMS to "+012345678"
4	ME -> USER	Display "Send SM"	[Alpha Identifier]
5	ME -> SIM	ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
6	SIM -> ME	90 00	
7	ME ->SS	Send SMS-PP	[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.1 without modification]
8	SS -> ME	SMS RP-ACK	
9	ME -> SIM	TERMINAL RESPONSE: SEND SHORT MESSAGE 1.1.1	

Expected Sequence 1.8 (MO SM CONTROL BY SIM , Send Short Message attempt by user, the SIM responds with '90 00', Allowed, no modification)

Step	Direction	Message / Action	Comments
1	User → ME	The user makes a SMS with the user data "Test Message" and sends it to +012345678.	[The data entered and the ME settings shall lead to the same SMS-TPDU as defined in SMS-PP (SEND SHORT MESSAGE) Message 1.1.
2	ME → SIM	ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1 A or ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]

3	SIM → ME	90 00	
4	ME → SS	Send SMS-PP	[The ME sends the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.1 without modification]
5	SS -> ME	SMS RP-ACK	

Expected Sequence 1.9 (MO SM CONTROL BY SIM , Send Short Message attempt by user, the SIM responds with '93 00')

Step	Direction	Message / Action	Comments
1	User → ME	The user makes a SMS with the user data "Test Message" and sends it to +012345678.	[The data entered and the ME settings shall lead to the same SMS-TPDU as defined in SMS-PP (SEND SHORT MESSAGE) Message 1.1.
2	ME → SIM	ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1A or ENVELOPE : MO SHORT MESSAGE CONTROL 1.1.1B	[Option A shall apply for GSM parameters] [Option B shall apply for PCS1900 parameters]
3	SIM → ME	93 00	
4	ME → SS	No action allowed	[The ME shall not send the SM containing SMS-PP (SEND SHORT MESSAGE) Message 1.1or any other SM to the SS]

27.22.8.5   Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.9.

Annex A:
Void

Annex B:
Void

Annex C:
Void

Annex D (normative):
Details of Test-SIM (TestSIM)

The TestSIM shall be able to present the following data:

ANSWER TO RESET

Logically:

TS (Initial character):	'3B'
T0 (Format character):	'86' (Following interface characters: TD(1), number of historical characters: 6)
TD1:	'00' (Following interface characters: none, Transfer protocol: T=0)
T1:	91
T2:	99
T3:	00
T4:	12
T5:	C1
T6:	00

Coding:

BER-TLV:	3B	86	00	91	99	00	12	C1	00

1. For a successful outcome of the command "Select MasterFile" the TestSIM shall send SW1/SW2 "9F 1B".

2. For a successful outcome of the command "Get Response with Length 1B" on the MasterFile the TestSIM shall respond:

RFU:	'00 00'
Not allocated memory:	'653 bytes'
File ID:	Master File
Type of file:	MF
RFU:	00 00 22 FF 01'
Length of following data:	14 bytes'
File characteristics:	
Clock Stop:	Not allowed
Min. frequence for GSM algorithm:	13/8 MHz
Technology identification:	3V Technology SIM
CHV1:	disabled
DFs in current directory:	2
EFs in current directory:	8
Number of CHV and admin. Codes:	3
RFU byte 18:	00
CHV1 status:	
False representations remaining:	3
RFU-bits 7-5:	000
Secret code:	Initialized
Unlock CHV1 status:	
False representations remaining:	10
RFU-bits 7-5:	000
Secret code:	Initialized
CHV2 status:	
False representations remaining:	3
RFU-bits 7-5:	000
Secret code:	Initialized
Unlock CHV2 status:	
False representations remaining:	10

RFU-bits 7-5:	000		
Secret code:	Initialized		
RFU bytes 23:	00		
Reserved for admin. management:	00 83 00 FF		
Status Words			
SW1 / SW2:	Normal ending of command		

Coding:

BER-TLV:	00	00	02	8D	3F	00	01	00	00	22	FF	01
	0E	9B	02	08	03	00	83	8A	83	8A	00	00
	83	00	FF	90	00							

1. For a successful outcome of the command "Select GSM" the TestSIM shall send SW1/SW2 "9F 1B".

2. For a successful outcome of the command "Select PLMN" the TestSIM shall send SW1/SW2 "9F 0F".

3. EF$_{PLMN}$ Information:

RFU-Bytes 1-2:	00 00
File size:	102 bytes
File ID:	6F30
Type of File:	Elementary file
Byte 8	
RFU:	00
Access Condition:	
UPDATE:	CHV1
READ/SEEK:	CHV1
RFU-bits 4-1:	1111
INCREASE:	NEVER
INVALIDATE:	NEVER
REHABILITATE:	NEVER
File Status:	
Invalidation status:	File not invalidated
Readable/updateable:	Not readable/updatable when invalidated
RFU-bits 8-4, 2:	0000 0
Length of following data:	2 bytes
Structure:	Transparent
Length of record:	00

The initial coding of the EF$_{PLMN}$ shall be FF FF ... FF (logically: Empty).

Annex E (normative):
Details of terminal profile support

Table E.1: TERMINAL PROFILE support

Item	Terminal Profile	Ref.	Release	Status	Support	Mnemonic
1	Profile Download	3GPP TS 11.14, 5	R96	M		PD_Pro_Dvnl
2	SMS-PP data download	3GPP TS 11.14, 5	R96	C201		PD_SMS_PP
3	Cell Broadcast data download	3GPP TS 11.14, 5	R96	C202		PD_CB
4	Menu selection	3GPP TS 11.14, 5	R96	M		PD_Menu_sel
5	'9EXX' response code for SIM data download error	3GPP TS 11.14, 5	R97	M		PD_9EXX
6	Timer expiration	3GPP TS 11.14, 5	R98	M		PD_TExpir
7	USSD string data object supported in Call Control	3GPP TS 11.14, 5	R98	M		PD_CC_USSD_Str
8	Envelope Call Control always sent to the SIM during automatic redial mode	3GPP TS 11.14, 5	R99	M		PD_CC_Auto_Redial
9	Command result	3GPP TS 11.14, 5	R96	M		PD_Cmd_Res
10	Call Control by SIM	3GPP TS 11.14, 5	R96	M		PD_CC
11	Cell identity included in Call Control by SIM	3GPP TS 11.14, 5	R97	M		PD_CC_Cell_Id
12	MO short message control by SIM	3GPP TS 11.14, 5	R98	M		PD_MO_SMS_CC
13	Handling of the alpha identifier	3GPP TS 11.14, 5	R97	M		PD_Alpha _Id
14	UCS2 Entry supported	3GPP TS 11.14, 5	R97	C203		PD_UCS2_entry
15	UCS2 Display supported	3GPP TS 11.14, 5	R97	C203		PD_UCS2_Display
16	Display of the extension text	3GPP TS 11.14, 5	R98	C205		PD_Disp_Ext_Text
17	DISPLAY TEXT	3GPP TS 11.14, 5	R96	M		PD_Display_Text
18	GET INKEY	3GPP TS 11.14, 5	R96	M		PD_Get_Inkey
19	GET INPUT	3GPP TS 11.14, 5	R96	M		PD_Get_Input
20	MORE TIME	3GPP TS 11.14, 5	R96	M		PD_More_Time
21	PLAY TONE	3GPP TS 11.14, 5	R96	M		PD_Play_Tone
22	POLL INTERVAL	3GPP TS 11.14, 5	R96	M		PD_Poll_interval
23	POLLING OFF	3GPP TS 11.14, 5	R96	M		PD_Polling_Off
24	REFRESH	3GPP TS 11.14, 5	R96	M		PD_Refresh
25	SELECT ITEM	3GPP TS 11.14, 5	R96	M		PD_Select_Item
26	SEND SHORT MESSAGE	3GPP TS 11.14, 5	R96	M		PD_Send_SMS
27	SEND SS	3GPP TS 11.14, 5	R96	M		PD_Send_SS
28	SEND USSD	3GPP TS 11.14, 5	R98	M		PD_Send_USSD
29	SET UP CALL	3GPP TS 11.14, 5	R96	M		PD_SetUp_Call
30	SET UP MENU	3GPP TS 11.14, 5	R96	M		PD_SetUp_Menu
31	PROVIDE LOCAL INFORMATION (LOCI & IMEI)	3GPP TS 11.14, 5	R96	M		PD_Provide_Local

Item	Terminal Profile	Ref.	Release	Status	Support	Mnemonic
32	PROVIDE LOCAL INFORMATION (NMR)	3GPP TS 11.14, 5	R97	M		PD_Provide_Local_ NMR
33	SET UP EVENT LIST	3GPP TS 11.14, 5	R98	M		PD_Setup_Evt_List
34	Event: MT call	3GPP TS 11.14, 5	R98	M		PD_MT_Call
35	Event: Call connected	3GPP TS 11.14, 5	R98	M		PD_Call_Conn
36	Event: Call disconnected	3GPP TS 11.14, 5	R98	M		PD_Call_Disc
37	Event: Location status	3GPP TS 11.14, 5	R98	M		PD_Loc_Status
38	Event: User activity	3GPP TS 11.14, 5	R98	M		PD_User_Act
39	Event: Idle screen available	3GPP TS 11.14, 5	R98	M		PD_Idle_Scr_Avail
40	Event: Card reader status	3GPP TS 11.14, 5	R98	C206		PD_Evt_Rdr_Status
41	Event: Language selection	3GPP TS 11.14, 5	R99	M		PD_Lang_Select
42	Event: Browser Termination	3GPP TS 11.14, 5	R99	C212		PD_Browser_Term
43	Event: Data available	3GPP TS 11.14, 5	R99	C223		PD_Data_Avail
44	Event: Channel status	3GPP TS 11.14, 5	R99	C223		PD_Evt_Ch_Status
45	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_45
46	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_46
47	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_47
48	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_48
49	POWER ON CARD	3GPP TS 11.14, 5	R98	C206		PD_C_On
50	POWER OFF CARD	3GPP TS 11.14, 5	R98	C206		PD_C_Off
51	PERFORM CARD APDU	3GPP TS 11.14, 5	R98	C206		PD_C_APDU
52	GET READER STATUS (Card reader status)	3GPP TS 11.14, 5	R98	C206		PD_Get_Rdr_Status
53	GET READER STATUS (Card reader identifier)	3GPP TS 11.14, 5	R99	C208		PD_Get_Rdr_Id
54	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_54
55	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_55
56	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_56
57	TIMER MANAGEMENT (start, stop)	3GPP TS 11.14, 5	R98	M		PD_Timer_Mgt_Start _Stop
58	TIMER MANAGEMENT (get current value)	3GPP TS 11.14, 5	R98	M		PD_Timer_Val
59	PROVIDE LOCAL INFORMATION (date, time and time zone)	3GPP TS 11.14, 5	R98	M		PD_Provide_Local_ D_Time
60	Binary choice in GET INKEY	3GPP TS 11.14, 5	R98	M		PD_Bin_Get_Inkey
61	SET UP IDLE MODE TEXT	3GPP TS 11.14, 5	R98	M		PD_Stup_Id_Mod_T xt
62	RUN AT COMMAND (i.e. class "b" is supported)	3GPP TS 11.14, 5	R98	C209		PD_Run_AT
63	2nd alpha identifier in SET UP CALL	3GPP TS 11.14, 5	R98	M		PD_SetUp_Call_Sec _Alpha_Id
64	2nd capability configuration parameter	3GPP TS 11.14, 5	R98	C210		PD_Cap_Conf_Para m
65	Sustained DISPLAY TEXT	3GPP TS 11.14, 5	R98	C211		PD_Sustained_Displ _Txt
66	SEND DTMF command	3GPP TS 11.14, 5	R98	M		PD_Send_DTMF
67	PROVIDE LOCAL INFORMATION - BCCH	3GPP TS 11.14, 5	R98	M		PD_Provide_Local_B CCH_List
68	PROVIDE LOCAL INFORMATION (language)	3GPP TS 11.14, 5	R99	M		PD_Provide_Local_L S
69	PROVIDE LOCAL INFORMATION (Timing Advance)	3GPP TS 11.14, 5	R99	M		PD_Provide_Local_T A
70	LANGUAGE NOTIFICATION	3GPP TS 11.14, 5	R99	M		PD_Lang_Notif
71	LAUNCH BROWSER	3GPP TS 11.14, 5	R99	C212		PD_Launch_Brws
72	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_72
73	Soft keys support for SELECT ITEM	3GPP TS 11.14, 5	R99	C213		PD_Softkey_Select_I tem
74	Soft Keys support for SET UP MENU	3GPP TS 11.14, 5	R99	C213		PD_Softkey_SetUp _Menu
75	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_75

Item	Terminal Profile	Ref.	Release	Status	Support	Mnemonic
76	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_76
77	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_77
78	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_78
79	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_79
80	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_80
81	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
82	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
83	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
84	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
85	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
86	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
87	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C214		PD_Max_SoftKey
88	Maximum number of soft keys available ('FF' = RFU)	3GPP TS 11.14, 5	R99	C124		PD_Max_SoftKey
89	OPEN CHANNEL	3GPP TS 11.14, 5	R99	C223		PD_Open_Ch
90	CLOSE CHANNEL	3GPP TS 11.14, 5	R99	C223		PD_Close_Ch
91	RECEIVE DATA	3GPP TS 11.14, 5	R99	C223		PD_Rx_Data
92	SEND DATA	3GPP TS 11.14, 5	R99	C223		PD_Send_Data
93	GET CHANNEL STATUS	3GPP TS 11.14, 5	R99	C223		PD_Get_Ch_Status
94	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_94
95	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_95
96	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_96
97	CSD supported by ME	3GPP TS 11.14, 5	R99	C207		PD_CSD
98	GPRS supported by ME	3GPP TS 11.14, 5	R99	C222		PD_GPRS
99	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_99
100	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_100
101	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_101
102	Number of channels supported by ME	3GPP TS 11.14, 5	R99	C223		PD_Nb_Channel

Item	Terminal Profile	Ref.	Release	Status	Support	Mnemonic
103	Number of channels supported by ME	3GPP TS 11.14, 5	R99	C223		PD_Nb_Channel
104	Number of channels supported by ME	3GPP TS 11.14, 5	R99	C223		PD_Nb_Channel
105	Number of characters supported down the ME	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char
106	Number of characters supported down the ME	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char
107	Number of characters supported down the ME	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char
108	Number of characters supported down the ME	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char
109	Number of characters supported down the ME	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char
110	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_110
111	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_111
112	Screen Sizing Parameters	3GPP TS 11.14, 5	R99	C216		PD_Screen_Siz
113	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
114	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
115	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
116	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
117	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
118	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
119	Number of characters supported across the ME display	3GPP TS 11.14, 5	R99	C217		PD_Nb_Char_Disp
120	Variable size fonts Supported	3GPP TS 11.14, 5	R99	C217		PD_Var_Font
121	Display can be resized	3GPP TS 11.14, 5	R99	C218		PD_Disp_Resiz
122	Text Wrapping supported	3GPP TS 11.14, 5	R99	C218		PD_Txt_Wrap
123	Text Scrolling supported	3GPP TS 11.14, 5	R99	C218		PD_Txt_Scroll
124	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_124
125	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_125
126	Width reduction when in a menu	3GPP TS 11.14, 5	R99	C217		PD_Width_Reduc
127	Width reduction when in a menu	3GPP TS 11.14, 5	R99	C217		PD_Width_Reduc
128	Width reduction when in a menu	3GPP TS 11.14, 5	R99	C217		PD_Width_Reduc
129	TCP	3GPP TS 11.14, 5	R99	C220		PD_TCP
130	UDP	3GPP TS 11.14, 5	R99	C221		PD_UDP
131	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_131
132	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_132
133	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_133
134	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_134
135	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_135
136	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_136
137	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_137
138	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_138
139	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_139
140	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_140
141	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_141

Item	Terminal Profile	Ref.	Release	Status	Support	Mnemonic
142	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_142
143	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_143
144	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_144
145	Protocol Version	3GPP TS 11.14, 5	R99	TBD		
146	Protocol Version	3GPP TS 11.14, 5	R99	TBD		
147	Protocol Version	3GPP TS 11.14, 5	R99	TBD		
148	Protocol Version	3GPP TS 11.14, 5	R99	TBD		
149	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_149
150	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_150
151	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_151
152	RFU	3GPP TS 11.14, 5	R96	X		PD_RFU_152

C201	IF E.1/3 THEN O ELSE M	-- PD_CB
C202	IF E.1/2 THEN O ELSE M	-- PD_SMS_PP
C203	IF A.1/3 THEN M	-- O_Ucs2_Entry
C204	IF A.1/14 THEN M	-- O_Ucs2_Disp
C205	IF A.1/4 THEN M	-- O_Ext_Str
C206	IF A.1/7 THEN M	-- O_Dual_Slot
C207	IF A.1/12 THEN M	-- O_BIP_CSD
C208	IF (A.1/7 AND A.1/8) THEN M	-- O_Dual_Slot AND O_Detach_Rdr
C209	IF A.1/9 THEN M	-- O_Run_At
C210	IF A.1/1 THEN M	-- O_Cap_Conf
C211	IF A.1/2 THEN M	-- O_sust_text
C212	IF A.1/10 THEN M	-- O_LB
C213	IF A.1/11 THEN M	-- O_Softkey
C214	IF C213 THEN bit values "0" / "1" allowed	-- O_Softkey (parameters)
C215	Void	-- Void
C216	IF A.1/13 THEN M	-- O_Scr_Siz
C217	IF C217 THEN bit values "0" / "1" allowed	-- O_Scr_Siz (parameters)
C218	IF A.1/14 THEN M	-- O_Scr_Resiz
C219	IF C218 THEN bit values "0" / "1" allowed	-- O_Scr_Resiz (parameters)
C220	IF A.1/18 THEN M	-- O_TCP
C221	IF A.1/17 THEN M	-- O_UDP
C222	IF A.1/21 THEN M	-- O_BIP_GPRS
C223	IF (C207 OR C222) THEN M	-- O_BIP

Comments:
This static requirement for the TERMINAL PROFILE is specifying the bit coding of this command. In the support column a "Yes" (or "Y" or "y") means bit coding "1" and a "No" (or "N" or "n") and "X" means bit coding "0" in the command.

Annex F (informative):
Change history

CR	REV	PHASE	VERS	SUBJECT	CAT	NEW_VERS
-		96	-	Approved as release 1996 at SMG#30	-	5.0.0
A001		96	5.0.0	Corrections to SIM Application Toolkit Test Specification	F	5.1.0
			5.1.0	Version update to 5.1.1 for Publication		5.1.1
A002		96	5.1.0	Editorial and coding corrections	F	5.2.0
A003		96	5.2.0	Correction of wrong coding for SIM Application Toolkit test 27.22.4.2	F	5.3.0
A004		96	5.2.0	Corrections for Test Case 27.22.5.1 (SMS-PP Data Download)	F	5.3.0
A005		96	5.3.0	Correction of wrong coding for SIM Application Toolkit 27.22	F	5.4.0
A006		96	5.4.0	Corrections for Test Case 27.22.4.7 (REFRESH)	F	5.5.0
A007		96	5.4.0	Corrections for Test Case 27.22.5.2 (SMS-CB Data Download)	F	5.5.0
A008		99	5.5.0	Upgrade of the MS SAT test specification to Release 99	F	8.1.0
A010r1		99	8.1.0	Addition of Terminal Profile information, suppression of PLAY TONE Test sequence 1.2	F	8.2.0
A011		99	8.2.0	References to 11.10-1 replaced. Reference to 11.10-2 removed.	F	8.3.0
A012		R99	8.3.0	Corrections to Send Short Message, Sequence 1.4	F	8.4.0
A013		R99	8.3.0	Redial in Set Up Call	F	8.4.0
A014		R99	8.3.0	Correction to Terminal Response: Set Up Call 1.7.1	F	8.4.0
A015		R99	8.3.0	Select Item: Support of "No response from user"	F	8.4.0
A016		R99	8.3.0	Correction of Emergency Call test cases	F	8.4.0
A017				Essential corrections to default values for SIM Application Toolkit testing		
A018	-	R99	8.4.0	Clarification on comprehension required flag usage	F	8.5.0
A019				Essential corrections to Display text test cases		
A020				Essential corrections to Get Inkey test cases		
A021	-	R99	8.4.0	Essential corrections to Get Input test cases	F	8.5.0
A022				Essential corrections to Set Up Menu test cases		
A023				Essential corrections to Play Tone test cases		
A024				Essential corrections to Poll Intervall test case		
A025	-	R99	8.4.0	Essential corrections to Polling off test case	F	8.5.0
A026	-	R99	8.4.0	Essential corrections to Provide Local Information test cases	F	8.5.0
A027	-	R99	8.4.0	Essential corrections to Send Short message test cases	F	8.5.0
A028	-	R99	8.4.0	Essential corrections to Language Notification test cases	F	8.5.0
A029				Essential corrections to Send SS test cases		
A030	-	R99	8.4.0	Essential corrections to Set Up Call test cases	F	8.5.0
A031				Essential corrections to Send USSD test cases		
A032	-	R99	8.4.0	Essential correction to Set Up Idle Mode Text test cases	F	8.5.0
A033				Essential corrections to Power Off Card test case		
A034				Essential corrections to Perform Card APDU test cases		
A035				Essential correction to Get Reader Status test case		
A036				Essential corrections to Send DTMF test cases		
A037	-	R99	8.4.0	Essential corrections to CALL CONTROL BY SIM test cases	F	8.5.0
A038	-	R99	8.4.0	Essential corrections to CALL CONTROL BY SIM (Interaction with FDN/ BDN) test cases	F	8.5.0
A039				Essential corrections to Select Item test cases		
A040				Essential corrections to card reader status event download test cases		
A041	-	R99	8.4.0	Essential corrections to language selection and browser termination event download test cases	F	8.5.0
A042	-	R99	8.4.0	Essential corrections to Close Channel test cases	F	8.5.0
A043	-	R99	8.4.0	Essential corrections to Launch Browser test cases	F	8.5.0
A044				Essential corrections to Open Channel test cases		
A045				Essential corrections to Receive Data test cases		
A046				Essential corrections to Send Data test cases		
A047				Essential corrections to channel status event download test case		
A048				Essential corrections to Get Channel Status test cases		
A049				Essential corrections to CB data download test cases		
A050	-	R99	8.4.0	Essential corrections to location status, user activity and idle screen available event download test cases	F	8.5.0
A051	-	R99	8.4.0	Corrections in the REFRESH test sequences (with inclusion of T3-030535's contents)	F	8.5.0
A052	-	R99	8.4.0	Essential corrections to test requirement references	F	8.5.0
A053				Essential corrections to CALL CONTROL BY SIM (supplementary services) test case		
A054	-	R99	8.4.0	Essential corrections to MT Call, Call connected and Call disconnected event download test cases	F	8.5.0
A055	-	R99	8.5.0	Introduction of "MO Short Message Control by SIM" envelope testing	B	8.6.0
A056	-	R99	8.5.0	Re-Introduction of changes already approved at the last T3.	F	8.6.0
A057	-	R99	8.5.0	Essential corrections	F	8.6.0
A058	-	R99	8.5.0	Essential corrections to 27.22.4.14 "POLLING OFF"	F	8.6.0
A059	-	R99	8.5.0	Essential corrections to Send DTMF test cases	F	8.6.0
A060	-	R99	8.5.0	Introduction of BIP testing in GPRS	F	8.6.0
A061		R99	8.6.0	Correction of image instance descriptor for colour icons	F	8.7.0
A062		R99	8.6.0	Essential correction on Terminal Profile for the BIP	F	8.7.0

				Inclusion of tests on Open Channel for GPRS, on the user confirmation		
A063		R99	8.6.0	CR 11.10-4 Launch Browser test cases	F	8.7.0
A064		R99	8.6.0	CR 11.10-4 R99: Essential corrections	F	8.7.0
A065		R99	8.6.0	CR 11.10-4 R99: Essential correction of coding convention	F	8.7.0
A071		R99	8.7.0	Correction of Cell Broadcast message download test	F	8.8.0
A066		R99	8.7.0	Essential corrections	F	8.8.0
A067		R99	8.7.0	Support of GSM 700, GSM 850 and PCS 1900	F	8.8.0
A068		R99	8.7.0	Corrections of applicability table	F	8.8.0
A070		R99	8.7.0	Correction on allowing optional parameters in ENVELOPE(CALL CONTROL) command for call set-ups when testing Call Control procedures	F	8.8.0
A069		R99	8.7.0	Essential corrections to Call Control test cases	F	8.8.0

History

Document history		
V8.1.0	December 2002	Publication
V8.2.0	February 2003	Publication
V8.3.0	April 2003	Publication
V8.4.0	June 2003	Publication
V8.5.0	September 2003	Publication
V8.6.0	December 2003	Publication
V8.7.0	March 2004	Publication
V8.8.0	June 2004	Publication