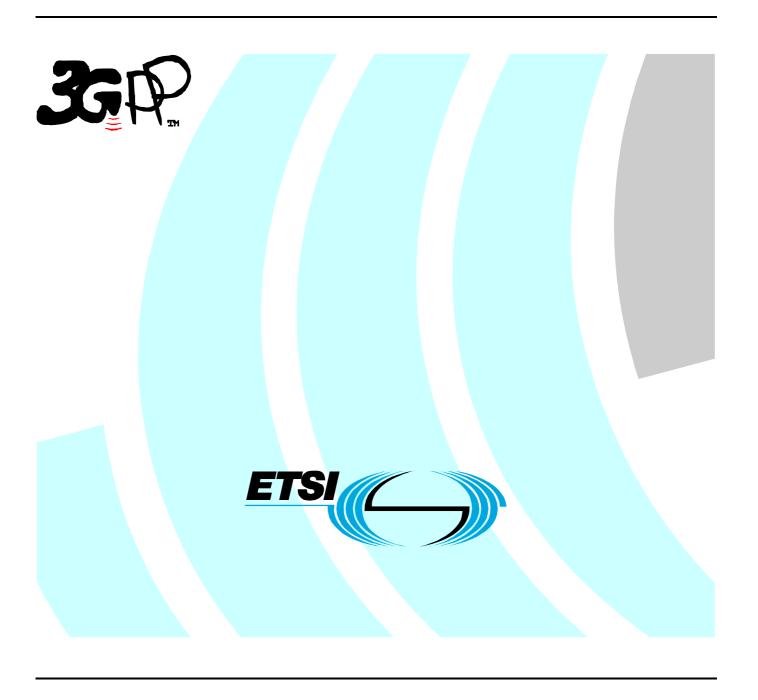# ETSI TS 131 124 V6.10.0 (2007-10)

*Technical Specification*

**Universal Mobile Telecommunications System (UMTS);
Mobile Equipment (ME) conformance test specification;
Universal Subscriber Interface Module Application
Toolkit (USAT) conformance test specification
(3GPP TS 31.124 version 6.10.0 Release 6)**

*ETSI*

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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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:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

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3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

# 1 Scope

The present document describes the technical characteristics and methods of test for testing the USIM Application Toolkit implemented in 3rd Generation Mobile Equipments (ME) or Mobile Station (MS) for the 3G and 2G digital cellular communications systems within the 3GPP 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 ETSI ETS 300 406 [20].

The present document is valid for ME implemented according to 3GPP Release 99, or Release 4, or Release 5 or Release 6.

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 3GPP-series of technical specifications. The present document neither replaces any of the other 3GPP technical specifications or 3GPP related ETSs or ENs, nor is it created to provide full understanding of (or parts of) the UMTS. The present document lists the requirements, and provides the methods of test for testing the USIM Application Toolkit implemented in a ME for conformance to the 3GPP standard.

For a full description of the system, reference should be made to all the 3GPP technical specifications or 3GPP related ETSIs, ETSs or ENs. Clause 2 provides a complete list of the 3GPP technical specifications, 3GPP related ETSI's 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 3GPP technical specification or 3GPP related ETSI, ETS, EN, or 3GPP TS, then the other 3GPP technical specification or 3GPP related ETSI ETS, EN or 3GPP TS shall prevail.

Within the context of this document, the term "terminal" used in ETSI TS 102 223 [16] refers to the Mobile Equipment (ME).

Within the context of this document, the term "UICC" used in ETSI TS 102 223 [16] refers to the USIM card.

Within the context of this document, the term "NAA" used in ETSI TS 102 223 [16] refers to the USIM application.

# 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*.

- 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.

[1] - [15] Void.

[16] ETSI TS 102 223: "Smart cards; Card Application Toolkit (CAT)"

[17a] – [18] Void.

[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".

[21] – [28] Void.

[29] 3GPP TS 31.124, Rel-7: "Mobile Equipment (ME) conformance test specification; Universal Subscriber Identity Module Application Toolkit (USAT) conformance test specification".

# 3 Definitions and abbreviations

Void.

# 4 Test equipment

The requirements of the present document are provided in TS 31.124 [29].

# Annex A (informative):
# Change history

| CP-doc | CR | REV | Meeting | SUBJECT | CAT | NEW_VERS |
|--------|-----|-----|---------|---------|-----|----------|
| TP-050016 | - | - | 2.0.0 | Approved TP-27, March 2005 | | 6.0.0 |
| CP-050144 | 0001 | - | CT-28 | Correction of coding in MT Call Event | F | 6.1.0 |
| CP-050144 | 0002 | - | CT-28 | Correction of applicability table | F | 6.1.0 |
| CP-050144 | 0003 | - | CT-28 | Essential Corrections | F | 6.1.0 |
| CP-050144 | 0004 | - | CT-28 | Correction of coding in MT Call Event | F | 6.1.0 |
| CP-050144 | 0005 | - | CT-28 | Removal of GET RESPONSE references | F | 6.1.0 |
| CP-050447 | 0006 | - | CT-29 | Rel-6: Correction of release dependent EF values | F | 6.2.0 |
| CP-050447 | 0007 | - | CT-29 | Correction of applicability and terminal profile support tables | F | 6.2.0 |
| CP-050447 | 0008 | - | CT-29 | Correction of EF_BDN coding | F | 6.2.0 |
| CP-050447 | 0009 | - | CT-29 | Incorrect Dialling Number string in clause 27.22.4.13.1 SEQ 1.9 for PCS 1900 | F | 6.2.0 |
| CP-050447 | 0010 | - | CT-29 | Essential corrections in display icons Setup Menu and Select Item | f | 6.2.0 |
| CP-050447 | 0011 | - | CT-29 | Incorrect Ti Flag value for SET UP 1.4.1 in clause 27.22.4.16.1 | F | 6.2.0 |
| CP-050447 | 0012 | - | CT-29 | Correction of TP-MR (TP Message Reference) of the SMS SUBMIT TPDU submitted to the USS (Network) | F | 6.2.0 |
| CP-050447 | 0013 | - | CT-29 | Corrections in the Logical description and BER encoding in clause 27.22.6.2 and 27.22.4.11 | F | 6.2.0 |
| CP-050447 | 0014 | - | CT-29 | Incorrect DCS in SMS-CB data download tests | F | 6.2.0 |
| CP-050447 | 0015 | - | CT-29 | Essential Corrections in clause 27.22.8 MO SHORT MESSAGE CONTROL BY USIM | F | 6.2.0 |
| CP-050447 | 0016 | - | CT-29 | Introduction of BDN tests for terminals not supporting BDN | B | 6.2.0 |
| CP-050447 | 0017 | - | CT-29 | Essential Corrections | F | 6.2.0 |
| CP-050447 | 0018 | - | CT-29 | Incorrect SMS-PP 1.4.1 TPDU in clause 27.22.4.22.1 | F | 6.2.0 |
| CP-050447 | 0019 | - | CT-29 | Missing interactions in Bearer Independent Protocol test cases | F | 6.2.0 |
| CP-050447 | 0020 | - | CT-29 | Correction of Refresh tests | F | 6.2.0 |
| CP-050447 | 0022 | - | CT-29 | Applicability of TC 27.22.4.7.1 and TCs related to FDN and BDN | F | 6.2.0 |
| CP-050447 | 0023 | - | CT-29 | Essential correction to Terminal Profile table E.1 | F | 6.2.0 |
| CP-050447 | 0024 | - | CT-29 | Correction of CB message identifier | F | 6.2.0 |
| CP-050447 | 0025 | - | CT-29 | Rel-6: Addition of new UCS2 Tests | B | 6.2.0 |
| CP-050447 | 0027 | - | CT-29 | Incorrect Coding of SMS-PP (Data download) Message in clause 27.22.4.7.1 and 27.22.5.1 | F | 6.2.0 |
| - | - | - | - | 2005-10: Editorial corrections due to the CRs approved at CP-29 | - | 6.2.1 |
| CP-050495 | 0028 | - | CT-30 | Correction of Send SS (UCS2) tests | F | 6.3.0 |
| CP-050495 | 0029 | - | CT-30 | Essential Corrections in clause 27.22.4.11 | F | 6.3.0 |
| CP-050495 | 0030 | - | CT-30 | Corrections to Select Item (icons support) | F | 6.3.0 |
| CP-050495 | 0031 | - | CT-30 | 27.22.7.4.1 Location Status Event (normal) | F | 6.3.0 |
| CP-050495 | 0032 | - | CT-30 | Essential Corrections of Set Up Menu test | F | 6.3.0 |
| CP-050495 | 0033 | - | CT-30 | Correction of applicability table and related addition of missing test sequences | F | 6.3.0 |
| CP-050495 | 0034 | - | CT-30 | Correction in SMS-PP 1.4.1 TPDU of clause 27.22.4.22.1 | F | 6.3.0 |
| CP-050495 | 0035 | - | CT-30 | Essential Corrections of SMS-PP download message in Refresh test case | F | 6.3.0 |
| CP-050495 | 0036 | - | CT-30 | Essential Correction in MO SHORT MESSAGE CONTROL BY USIM Deletion of sequence 1.9 | F | 6.3.0 |
| CP-050495 | 0037 | - | CT-30 | Deletion of SEQ 1.3 in clause 27.22.4.13.1 | F | 6.3.0 |
| CP-060013 | 0041 | - | CT-31 | Deletion of Send Data test sequence | F | 6.4.0 |
| CP-060013 | 0042 | - | CT-31 | Essential correction of Provide Local Information (IMEI) test | F | 6.4.0 |
| CP-060013 | 0044 | - | CT-31 | Essential Correction in SEQ 1.8 of clause 27.22.8 | F | 6.4.0 |
| CP-060013 | 0045 | - | CT-31 | Essential correction on 27.22.7.3.1 Call Disconnected Event | F | 6.4.0 |
| CP-060013 | 0050 | - | CT-31 | Essential correction of Channel Data length in clause 27.22.4.30 | F | 6.4.0 |
| CP-060014 | 0048 | - | CT-31 | Essential Corrections in clause 27.22.4.11 | F | 6.4.0 |
| CP-060014 | 0052 | - | CT-31 | Essential Corrections in clause 27.22.8 MO SHORT MESSAGE CONTROL BY SIM | F | 6.4.0 |
| CP-060014 | 0049 | - | CT-31 | Essential correction in SEQ 1.4 of clause 27.22.4.11.1 SEND SS (normal) | F | 6.4.0 |
| CP-060014 | 0047 | - | CT-31 | Essential corrections of Run AT Command tests | F | 6.4.0 |
| CP-060014 | 0053 | - | CT-31 | Essential corrections to SET UP CALL test sequences | F | 6.4.0 |
| CP-060015 | 0055 | - | CT-31 | Essential Correction in TERMINAL RESPONSE coding of clause 27.22.4.31 | F | 6.4.0 |
| CP-060015 | 0056 | - | CT-31 | Essential corrections to Timer Expiration tests | F | 6.4.0 |
| CP-060015 | 0054 | - | CT-31 | BER-TLV suppressions | F | 6.4.0 |
| CP-060157 | 0059 | - | CT-31 | Add SMS PP Data Download RP-ERROR Test Case | B | 6.4.0 |
| CP-060022 | 0043 | - | CT-31 | Essential Correction in SEQ 1.7 of clause 27.22.4.13.1 | F | 6.4.0 |
| CP-060022 | 0046 | - | CT-31 | Essential correction of Refresh test | F | 6.4.0 |
| CP-060022 | 0051 | - | CT-31 | Essential correction of Channel Data length in Result TLV of clause 27.22.4.30 | F | 6.4.0 |

| CP-doc | CR | REV | Meeting | SUBJECT | CAT | NEW_VERS |
|---|---|---|---|---|---|---|
| CP-060022 | 0060 | - | CT-31 | CR 31.124 Rel-6: Insertion of missing REFRESH (IMSI changing procedure) test cases | F | 6.4.0 |
| CP-060022 | 0057 | - | CT-31 | Essential corrections of references | F | 6.4.0 |
| CP-060241 | 0061 | - | CT-32 | Proposal to the TS 31.124 Split by referencing the relevant USAT Test procedures to TS 102 384 | | 6.5.0 |
| CP-060241 | 0062 | - | CT-32 | Essential corrections on test cases 27.22.6.3 and 27.22.6.4 using record 2 in EF FDN | | 6.5.0 |
| CP-060241 | 0063 | - | CT-32 | Essential corrections on TC 27.22.6.4 sequence 4.1 | | 6.5.0 |
| CP-060241 | 0064 | - | CT-32 | Essential corrections on SEND SHORT MESSAGE test cases | | 6.5.0 |
| CP-060241 | 0065 | - | CT-32 | Essential correction of text attributes tests | | 6.5.0 |
| CP-060241 | 0066 | - | CT-32 | Definition of appropriate QoS in BIP test cases related to GPRS for 3G | | 6.5.0 |
| CP-060241 | 0071 | - | CT-32 | Essential correction of Refresh test in 27.22.7.4.2, seq. 2.4 | | 6.5.0 |
| CP-060241 | 0074 | - | CT-32 | Essential corrections of RUN AT Command tests | | 6.5.0 |
| CP-060241 | 0067 | - | CT-32 | Essential correction of tables B.1 and E.1 | | 6.5.0 |
| CP-060242 | 0068 | - | CT-32 | Essential Correction in REGISTER 1.2B message coding of clause 27.22.4.11.1 SEND SS (normal) | F | 6.5.0 |
| CP-060242 | 0069 | - | CT-32 | Essential correction of 27.22.4.13.1 SET UP CALL, seq 1.4 | F | 6.5.0 |
| CP-060242 | 0070 | - | CT-32 | Essential correction of second card reader test applicability | F | 6.5.0 |
| CP-060242 | 0072 | - | CT-32 | Correction of TON/NPI coding for Call Control Test case | F | 6.5.0 |
| CP-060242 | 0073 | - | CT-32 | Essential corrections on 27.22.4.11.1 sequence. 1.2 | F | 6.5.0 |
| CP-060242 | 0075 | - | CT-32 | Essential correction of BIP tests | F | 6.5.0 |
| CP-060389 | 0082 | 1 | CT-33 | Wrong reference inside test requirement of TC 27.22.7.2.2 | F | 6.6.0 |
| CP-060389 | 0087 | 1 | CT-33 | Essential corrections of applicability table | F | 6.6.0 |
| CP-060389 | 0088 | 1 | CT-33 | Essential correction of IMEISV coding for Provide Local Information | F | 6.6.0 |
| CP-060389 | 0089 | 1 | CT-33 | Essential corrections of text attribute tests for Send USSD and Close channel | F | 6.6.0 |
| CP-060389 | 0090 | 1 | CT-33 | Proposal to the TS 31.124 Split by referencing the relevant USAT Test procedures to TS 102 384 | F | 6.6.0 |
| CP-060389 | 0091 | 1 | CT-33 | Correction to the UCS2 coding in Setup Call test | F | 6.6.0 |
| CP-060389 | 0092 | 1 | CT-33 | Essential correction of RUN AT Command for text attribute tests | F | 6.6.0 |
| CP-060389 | 0095 | 1 | CT-33 | Correction of RECEIVE DATA tests | F | 6.6.0 |
| CP-060389 | 0096 | 1 | CT-33 | Correction of terminology for USIM Service Table | F | 6.6.0 |
| CP-060389 | 0097 | 1 | CT-33 | Correction of 2nd alpha identifier usages in SET UP CALL tests | F | 6.6.0 |
| CP-060389 | 0098 | 1 | CT-33 | Correction of various typographical errors | F | 6.6.0 |
| CP-060389 | 0101 | 1 | CT-33 | Essential corrections to OPEN CHANNEL text attribute test sequences | F | 6.6.0 |
| CP-060389 | 0078 | 1 | CT-33 | Correction of "Precedence class" values in Bearer Independent Protocol test cases | F | 6.6.0 |
| CP-060389 | 0076 | 1 | CT-33 | Essential corrections on PROVIDE LOCAL INFORMATION test sequences | F | 6.6.0 |
| CP-060389 | 0080 | 2 | CT-33 | Essential corrections on test sequences using the TLV data object Location Information | F | 6.6.0 |
| CP-060389 | 0100 | 2 | CT-33 | Essential corrections to SET UP CALL (UCS2 Display) test sequences | F | 6.6.0 |
| CP-060389 | 0081 | 3 | CT-33 | Essential corrections to REFRESH(normal) test sequence | F | 6.6.0 |
| CP-060389 | 0102 | 1 | CT-33 | Essential corrections to SEND SS display tests concerning longForwardedToNumber | F | 6.6.0 |
| CP-060475 | 0086 | 1 | CT-33 | Essential corrections of MMI entries in table E.1 | F | 6.6.0 |
| CP-060475 | 0077 | 2 | CT-33 | Corrections to SET UP CALL test case 27.22.4.13.1 | F | 6.6.0 |
| CP-060475 | 0099 | 1 | CT-33 | Essential corrections to SEND SS concerning longForwardedToNumber | F | 6.6.0 |
| CP-060475 | 0094 | 2 | CT-33 | Corrections to MO SHORT MESSAGE CONTROL BY USIM tests | F | 6.6.0 |
| CP-060517 | 0084 | 1 | CT-33 | Essential corrections Set Up Call, seq. 1.9 | F | 6.6.0 |
| CP-060540 | 0103 | - | CT-34 | Correction of APN Coding in Open Channel test case | F | 6.7.0 |
| CP-060540 | 0085 | 2 | CT-34 | Essential corrections of BIP entries in table E.1 | F | 6.7.0 |
| CP-060540 | 0110 | 2 | CT-34 | Essential correction of Result TLV handling | F | 6.7.0 |
| CP-060540 | 0111 | - | CT-34 | Essential correction of expected sequence in OPEN CHANNEL test case | F | 6.7.0 |
| CP-060727 | 0105 | - | CT-34 | Some of the Applicability table content is missing when printed or in Print Layout mode | F | 6.7.0 |
| CP-060727 | 0106 | 1 | CT-34 | Correction to SET UP CALL | F | 6.7.0 |
| CP-060727 | 0107 | - | CT-34 | Correction to SEND SS | F | 6.7.0 |
| CP-060727 | 0058 | 1 | CT-34 | Addition of REFRESH USIM Application Reset | B | 6.7.0 |
| CP-060727 | 0108 | - | CT-34 | Essential corrections on SEND SS (UCS2 display) test cases | F | 6.7.0 |
| CP-060727 | 0109 | - | CT-34 | Essential corrections on REFRESH TC 27.22.4.7.1 | F | 6.7.0 |
| CP-060727 | 0104 | 1 | CT-34 | Corrections in the interpretation of Katakana Character | F | 6.7.0 |
| CP-070063 | 0115 | - | CT-35 | Essential correction of 27.22.5.2 | F | 6.8.0 |
| CP-070063 | 0113 | 1 | CT-35 | Essential correction of Terminal Profile Support table | F | 6.8.0 |
| CP-070063 | 0112 | 1 | CT-35 | Essential correction of 27.22.4.13.1 Expected Sequence 1.7 | F | 6.8.0 |
| CP-070065 | 0116 | - | CT-35 | Essential correction of 27.22.4.7, seq. 1.7 | F | 6.8.0 |
| CP-070065 | 0119 | - | CT-35 | Essential correction of TC 27.22.7.4.1 | F | 6.8.0 |
| CP-070065 | 0120 | - | CT-35 | CR implementation error correction for 27.22.6.2 SEQ 2.2 | F | 6.8.0 |
| CP-070065 | 0121 | - | CT-35 | CR implementation error correction for 27.22.4.11.1 SEQ 1.4A | F | 6.8.0 |
| CP-070065 | 0117 | 1 | CT-35 | Essential clarification of Network Simulator selection | F | 6.8.0 |
| CP-070065 | 0122 | 1 | CT-35 | Essential correction of 27.22.4.7.2 SEQ 2.2 | F | 6.8.0 |
| CP-070065 | 0124 | 2 | CT-35 | Addition of new expected sequence to the SMS-PP Data Download test case | C | 6.8.0 |

| CP-doc | CR | REV | Meeting | SUBJECT | CAT | NEW_VERS |
|--------|-----|-----|---------|---------|-----|----------|
| CP-070065 | 0125 | 2 | CT-35 | Addition of a new expected sequence to the SMS-CB Data Download test case | F | 6.8.0 |
| CP-070297 | 0127 | 2 | CT-36 | Essential correction of test case applicability | F | 6.9.0 |
| CP-070297 | 0128 | - | CT-36 | Correction of 27.22.4.2 applicability | F | 6.9.0 |
| CP-070297 | 0129 | 1 | CT-36 | Essential correction of test case applicability for 27.22.6.1 | A | 6.9.0 |
| CP-070297 | 0130 | 1 | CT-36 | Essential correction on 27.22.8 | A | 6.9.0 |
| CP-070297 | 0131 | - | CT-36 | Essential correction on 27.22.5.1 | F | 6.9.0 |
| CP-070297 | 0132 | - | CT-36 | Essential correction on 27.22.4.11.1 sequence. 1.4 B | F | 6.9.0 |
| CP-070297 | 0133 | - | CT-36 | Correction of reference to ISO/IEC 7816-3 | A | 6.9.0 |
| CP-070614 | 0135 | - | CT-37 | TS 31.124, Rel-6 content replacement by reference to TS 31.124, Rel-7 | F | 6.10.0 |

# History

| Document history | | |
|---|---|---|
| V6.0.0 | March 2005 | Publication |
| V6.1.0 | June 2005 | Publication |
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