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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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where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

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.

The present document is part 2 of a multi-part deliverable covering the 5G System (5GS) User Equipment (UE) protocol conformance specification, as identified below:

- 3GPP TS 38.523-1 [2]: "5GS; User Equipment (UE) conformance specification; Part 1: Protocol".
- **3GPP TS 38.523-2: "5GS; User Equipment (UE) conformance specification; Part 2: Applicability of protocol test cases" (the present document).**
- 3GPP TS 38.523-3 [3]: "5GS; User Equipment (UE) conformance specification; Part 3: Protocol Test Suites".

1 Scope

The present document provides the applicability of protocol test cases proforma for 5G New Radio (NR) User Equipment (UE), in compliance with the relevant requirements.

The present document specifies the recommended applicability statement for the test cases included in 3GPP TS 38.523-1 [2] and 3GPP TS 38.523-3 [3]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 38.509 [5] and 3GPP TS 36.509 [7] and the common test environments are included in 3GPP TS 38.508-1 [4] and 3GPP TS 36.508 [6].

The present document is valid for UE implemented according to 3GPP Releases starting from Release 15 up to the Release indicated on the cover page of the present document.

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 same Release as the present document.*

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.523-1: "5GS; User Equipment (UE) conformance specification; Part 1: Protocol".

[3] 3GPP TS 38.523-3: "5GS; User Equipment (UE) conformance specification; Part 3: Protocol Test Suites".

[4] 3GPP TS 38.508-1: "5GS; User Equipment (UE) conformance specification; Part 1: Common test environment".

[5] 3GPP TS 38.508-2: "5GS; User Equipment (UE) conformance specification; Part 2: Common Implementation Conformance Statement (ICS) proforma".

[6] 3GPP TS 38.509: "5GS; Special conformance testing functions for User Equipment (UE)".

[7] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); Common Test Environments for User Equipment (UE) Conformance Testing".

[8] 3GPP TS 36.509: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Special conformance testing functions for User Equipment (UE)".

[9] 3GPP TS 34.229-2: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP);User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) specification".

[10] 3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [5] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [5].

Implementation Conformance Statement (ICS): statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented

ICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

Implementation extra Information for Testing (IXIT): A statement made by a supplier or implementer of an UEUT which contains or references all of the information (in addition to that given in the ICS) related to the UEUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the UEUT

IXIT proforma: A document, in the form of a questionnaire, which when completed for an UEUT becomes an IXIT

Protocol Implementation Conformance Statement (PICS): An ICS for an implementation or system claimed to conform to a given protocol specification

Protocol Implementation extra Information for Testing (PIXIT): An IXIT related to testing for conformance to a given protocol specification

Static conformance review: A review of the extent to which the static conformance requirements are claimed to be supported by the UEUT, by comparing the answers in the ICS(s) with the static conformance requirements expressed in the relevant specification(s)

3.2 Symbols

For the purposes of the present document, the following symbols apply:

<symbol> <Explanation>

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

For the purposes of the present document, the following abbreviations apply:

FFS	For Further Study
ICS	Implementation Conformance Statement
IXIT	Implementation extra Information for Testing
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation extra Information for Testing
SCS	System Conformance Statement
TC	Test Case
UEUT	User Equipment Under Test

4 Recommended Test Case Applicability

4.0 Introduction

The applicability of each individual test is identified in subclause 4.1. This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expressions that are based on parameters (ICS). The parameters (ICS) included in TS 38.508-2 [5] are used in the test case applicability condition without reference. Parameters (ICS) specified in 3GPP TS 36.523-2 [10] and 3GPP TS 34.229-2 [9] shall be referred with proper reference.

Additional information related to the Test Case (TC), e.g. affecting its dynamic behaviour or its execution may be provided as well

The columns in subclause 4.1 have the following meaning:

Clause

The clause column indicates the clause number in TS 38.523-1 [2] that contains the test body.

Title

The title column describes the name of the test and contains the clause title of the clause in TS 38.523-1 [2] that contains the test body.

Release

The release column indicates the earliest release from which the test case is applicable. In some specific cases it may indicate the release(s) for which the TC is **only** applicable.

Note: Some exceptions to this interpretation may be indicated in Notes in column 'Number of TC Executions'.

Applicability - Condition

The following notations are used for the applicability column:

R	recommended - the test case is recommended
O	optional – the test case is optional
N/A	not applicable - in the given context, the test case is not recommended.
Ci	conditional - the test is recommended ("R") or not ("N/A") depending on the support of other items. "i" is an integer identifying a unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is used to avoid ambiguities.

NOTE: The conditions are defined in subclause 4.2.

Applicability - Comments

This column contains a verbal description of the condition.

Additional Information - Specific ICS

This column contains the mnemonics of ICS(s) affecting the dynamic behaviour of the TC.

Additional Information - Specific IXIT

This column contains the mnemonics of IXIT(s) affecting the dynamic behaviour of the TC.

Additional Information - Number of TC Executions

This column contains, wherever applicable, the recommended for certification purposes number of TC executions. It may contain also other information e.g. exceptions to the release applicable to the test. Clarifying notes are listed at the end of the same Table.

Additional Information - Release other RAT

In regard to a particular test case, this column provides information on the release which is used by the simulated network in the other (i.e. non 5GS) RAT(s) where applicable. For each applicable RAT the release shall be indicated in the format 'Rel-X RAT'. When multiple RATs are applicable the entries per RAT shall be separated by a comma. When a value for a 3GPP RAT is not provided but the RAT is in the scope of the test case then for this RAT the release indicated in the Release column applies (per default).

4.1 Protocol conformance test cases applicability

Table 4.1-1a: Applicability of Protocol conformance Idle mode test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
6	**Idle mode operations**			
6.1	**NR idle mode operations**			
6.1.1	**NG-RAN Only PLMN Selection**			
6.1.1.1	PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode	Rel-15	C21	UEs supporting 5G Core
6.1.1.2	PLMN selection of "Other PLMN/access technology combinations" / Automatic mode	Rel-15	C21	UEs supporting 5G Core
6.1.1.3	Cell reselection of ePLMN in manual mode	Rel-15	C21	UEs supporting 5G Core
6.1.1.4	PLMN selection in shared network environment / Automatic mode	Rel-15	C21	UEs supporting 5G Core
6.1.1.5	PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection	Rel-15	C36	UEs supporting 5G Core and user initiated PLMN reselection in automatic mode on NR
6.1.1.6	PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer	Rel-15	C34	UEs supporting 5G Core and MinimumPeriodicSearchTimer
6.1.1.7	PLMN selection of RPLMN or (E)HPLMN; Automatic mode	Rel-15	C21	UEs supporting 5G Core
6.1.1.8	PLMN selection of RPLMN or (E)HPLMN; Manual mode	Rel-15	C91	UEs supporting 5G Core and ManualModeNetworkSelectionException
6.1.2	**NG-RAN Only Cell Selection**			
6.1.2.1	Cell selection / Qrxlevmin & Cell reselection (Intra NR)	Rel-15	C21	UEs supporting 5G Core
6.1.2.2	Cell selection / Qqualmin / Intra NR / Serving cell becomes non-suitable (Srxlev > 0, Squal < 0)	Rel-15	C21	UEs supporting 5G Core
6.1.2.3	Cell selection / Intra NR / Serving cell becomes non-suitable (S<0, MIB Indicated barred)	Rel-15	C21	UEs supporting 5G Core
6.1.2.4	Cell reselection for interband operation	Rel-15	C37	UEs supporting 5G Core and more than 1 FDD or TDD NR band
6.1.2.5	Cell reselection for interband operation using Pcompensation / Between FDD and TDD	Rel-15	C38	UEs supporting 5G Core and NR FDD and NR TDD
6.1.2.7	Cell reselection / Equivalent PLMN	Rel-15	C21	UEs supporting 5G Core
6.1.2.8	Cell reselection / Equivalent PLMN / Single Frequency operation	Rel-15	C21	UEs supporting 5G Core
6.1.2.9	Cell reselection using Qhyst, Qoffset and Treselection	Rel-15	C21	UEs supporting 5G Core
6.1.2.11	Area Specific SIBs using systemInformationAreaID	Rel-15	C21	UEs supporting 5G Core
6.1.2.12	Cell reselection using cell status and cell reservations / cellReservedForOtherUse	Rel-15	C21	UEs supporting 5G Core.
6.1.2.13	Cell reselection using cell status and cell reservations / Access Identity 0, 1, 2 and 12 to 14 - cellReservedForOperatorUse	Rel-15	C21	UEs supporting 5G Core
6.1.2.14	Cell reselection using cell status and cell reservations / Access Identity 11 or 15 - cellReservedForOperatorUse	Rel-15	C21	UEs supporting 5G Core.
6.1.2.15	Cell reselection in shared network environment	Rel-15	C21	UEs supporting 5G Core
6.1.2.16	Inter-frequency cell reselection (equal priority)	Rel-15	C21	UEs supporting 5G Core
6.1.2.17	Cell reselection / Cell-specific reselection parameters provided by the network in a neighbouring cell list	Rel-15	C21	UEs supporting 5G Core
6.1.2.18	Cell reselection, Sintrasearch, Snonintrasearch	Rel-15	C21	UEs supporting 5G Core
6.1.2.19	Speed dependent cell reselection	Rel-15	C21	UEs supporting 5G Core
6.1.2.20	Inter-frequency cell reselection according to cell reselection priority provided by SIBs	Rel-15	C21	UEs supporting 5G Core
6.1.2.21	Cell reselection, SIntraSearchQ and SnonIntraSearchQ	Rel-15	C21	UEs supporting 5G Core

Clause	TC Title	Release	Applicability	
			Condition	Comment
6.1.2.22	Inter-frequency cell reselection based on common priority information with parameters ThreshX, HighQ, ThreshX, LowQ and ThreshServing, LowQ	Rel-15	C21	UEs supporting 5G Core
6.1.2.23	Cell reselection / MFBI	Rel-15	C21	UEs supporting 5G Core
6.2	**Multi-mode environment**			
6.2.1	**Inter-RAT PLMN selection**			
6.2.1.1	Inter-RAT PLMN Selection / Selection of correct RAT for OPLMN / Automatic mode	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.1.2	Inter-RAT PLMN Selection / Selection of correct RAT for UPLMN / Automatic mode	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.1.3	Inter-RAT PLMN Selection / Selection of correct PLMN and RAT in shared network environment / Automatic mode	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.1.4	Inter-RAT PLMN Selection / Selection of correct RAT from the OPLMN list / Manual mode	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.1.5	Inter-RAT Background HPLMN Search / Search for correct RAT for HPLMN / Automatic mode	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.2	**Inter-RAT Cell Selection**			
6.2.2.1	Inter-RAT cell selection / From NR RRC_IDLE to EUTRA_Idle / Serving cell becomes non-suitable	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.2.2	Inter-RAT cell selection / From E-UTRA_Idle to NR RRC_IDLE / Serving cell becomes non-suitable	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3	**Inter-RAT Cell Reselection**			
6.2.3.1	Inter-RAT cell reselection / From E-UTRA_IDLE to NR RRC_IDLE (lower priority & higher priority, Srxlev based)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.2	Inter-RAT cell reselection / From E-UTRA_IDLE to NR RRC_IDLE (lower priority & higher priority, Squal based)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.3	Inter-RAT cell reselection / From NR RRC_IDLE to E-UTRA_IDLE (lower priority & higher priority, Srxlev based)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.4	Inter-RAT cell reselection / From NR RRC_IDLE to E-UTRA_IDLE (lower priority & higher priority, Squal based)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.5	Inter-RAT cell reselection / From NR RRC_IDLE to E-UTRA_IDLE according to RAT priority provided by dedicated signalling (RRCRelease)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.6	Inter-RAT cell reselection / From E-UTRA_IDLE to NR RRC_IDLE according to RAT priority provided by dedicated signalling (RRConnRelease)	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.7	Inter-RAT cell reselection / From NR RRC_IDLE to E-UTRA RRC_IDLE, Snonintrasearch	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.8	Inter-RAT cell reselection / From E-UTRA RRC_IDLE to NR RRC_Idle, Snonintrasearch	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.9	Void			
6.2.3.10	Inter-RAT cell reselection / From E-UTRA_IDLE to NR RRC_IDLE / schedulingInfoList-v12j0	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.2.3.11	Inter-RAT cell reselection / From E-UTRA_IDLE to NR RRC_IDLE / schedulingInfoListExt-r12	Rel-15	C32	UEs supporting 5G Core and E-UTRA
6.3	**5GS Steering of Roaming**			
6.3.1	**Steering of Roaming**			
6.3.1.1	Steering of UE in roaming during registration/security check successful using List Type 1	Rel-15	C21	UEs supporting 5G Core
6.3.1.2	Steering of UE in roaming during registration/security check successful but SOR Transparent container indicates ACK has been NOT been requested	Rel-15	C21	UEs supporting 5G Core
6.3.1.3	Steering of UE in roaming during registration/security check unsuccessful/Automatic mode	Rel-15	C21	UEs supporting 5G Core

Clause	TC Title	Release	Applicability	
			Condition	Comment
6.3.1.4	Steering of UE in roaming during registration/security check unsuccessful/Manual mode	Rel-15	C21	UEs supporting 5G Core
6.3.1.5	Steering of UE in roaming during registration/UE configured to receive Steering of Roaming information but does not receive Steering of Roaming from Network	Rel-15	C21	UEs supporting 5G Core
6.3.1.7	Steering of UE in roaming during registration/security check unsuccessful but emergency service pending to be activated	Rel-15	C21	UEs supporting 5G Core
6.3.1.8	Steering of UE in roaming after registration/Automatic PLMN selection mode	Rel-15	C21	UEs supporting 5G Core
6.3.1.9	Steering of UE in roaming after registration/Manual PLMN selection mode	Rel-15	C21	UEs supporting 5G Core
6.3.1.10	Steering of UE in roaming during mobility update registration	Rel-15	C21	UEs supporting 5G Core
6.4	**UE Procedures in RRC_INACTIVE state**			
6.4.1	**NG-RAN Only PLMN Selection in RRC_INACTIVE state**			
6.4.1.1	PLMN Selection / Higher priority/HPLMN in Automatic PLMN Selection mode	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
6.4.1.2	Cell reselection of ePLMN in manual mode	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
6.4.2	**Cell Selection / Qrxlevmin & Cell Reselection (Intra NR in RRC_INACTIVE state**			
6.4.2.1	Cell Selection / Qrxlevmin & Cell Reselection (Intra NR in RRC_INACTIVE state)	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
6.4.2.2	Inter-frequency cell reselection according to cell reselection priority provided by SIBs in RRC_INACTIVE state	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
6.4.3	**Inter-RAT Cell Reselection**			
6.4.3.1	Inter-RAT cell reselection From NR RRC_INACTIVE to E-UTRA RRC_IDLE (lower priority & higher priority, Srxlev based)	Rel-15	C110	UEs supporting 5G Core and E-UTRA and RRC_INACTIVE
6.5	**SNPN and CAG Selection**			
6.5.1	**SNPN Only Selection**			
6.5.1.1	SNPN Selection in Manual Mode	Rel-16	C131	UEs supporting 5G Core and SNPN
6.5.1.2	SNPN Selection in Automatic Mode	Rel-16	C131	UEs supporting 5G Core and SNPN
6.5.2	**CAG (Closed Acccess Group)**			
6.5.2.1	CAG Selection in Manual Mode	Rel-16	C132	UEs supporting 5G Core and CAG
6.5.2.2	CAG Selection in Automatic Mode	Rel-16	C132	UEs supporting 5G Core and CAG

Table 4.1-1b: Additional Information of Applicability of Protocol conformance Idle mode test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
6				
6.1				
6.1.2.8			If test case 6.1.2.7 has been executed then test case 6.1.2.8 needs not to be executed	
6.1.2.23		px_NR_OverlappingNotSupportedBand_MFBI		
6.2				
6.2.1				
6.2.1.1				Rel-15 E-UTRA
6.2.1.2				Rel-15 E-UTRA
6.2.1.3				Rel-15 E-UTRA
6.2.1.4	[10] pc_Available_PLMNs_AcT_Ind			Rel-15 E-UTRA
6.2.1.5				Rel-15 E-UTRA
6.2.2				
6.2.3				
6.2.3.1				Rel-15 E-UTRA
6.2.3.2				Rel-15 E-UTRA
6.2.3.3				Rel-15 E-UTRA
6.2.3.4				Rel-15 E-UTRA
6.2.3.5				Rel-15 E-UTRA
6.2.3.6				Rel-15 E-UTRA
6.2.3.7				Rel-15 E-UTRA
6.2.3.8				Rel-15 E-UTRA
6.3				
6.3.1				
6.3.1.2	pc_SOR_ACKNotReqLocalRel			
6.4				
6.4.1				
6.4.2				
6.4.3				
6.4.3.1				Rel-15 E-UTRA

Table 4.1-2a: Applicability of Protocol conformance Layer 2 test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
7	**Layer 2**			
7.1	**NR Layer 2**			
7.1.1	**MAC**			
7.1.1.1	**Random Access Procedures**			
7.1.1.1.1	Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by RRC / contention free random access procedure	Rel-15	R	UEs supporting 5GS
7.1.1.1.1a	Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by PDCCH Order / contention free random access procedure	Rel-15	R	UEs supporting 5GS
7.1.1.1.2	Random access procedure / Successful / C-RNTI Based / Preamble selected by MAC itself	Rel-15	R	UEs supporting 5GS
7.1.1.1.3	Random access procedure / Successful / SI request	Rel-15	R	UEs supporting 5GS
7.1.1.1.4	Random access procedure / Successful / Beam Failure / Preamble selected by MAC itself / non-Contention Free RACH procedure	Rel-15	R	UEs supporting 5GS
7.1.1.1.5	Random access procedure / Successful / Supplementary Uplink	Rel-15	C28	UEs supporting 5GS and supplemental uplink with dynamic switch
7.1.1.1.6	Random access procedure / Successful / Temporary C-RNTI Based / Preamble selected by MAC itself	Rel-15	R	UEs supporting 5GS
7.1.1.1.7	Random access procedure / 2-step RACH / RA_TYPE selection	Rel-16	C135	UEs Supporting 2-Step RACH

Clause	TC Title	Release	Applicability	
			Condition	Comment
7.1.1.1.8	Correct selection of RACH parameters / 2-step RACH/MSGA and PRACH resource explicitly signalled to the UE by RRC / contention free random access procedure	Rel-16	C135	UEs Supporting 2-Step RACH
7.1.1.2	**Downlink Data Transfer**			
7.1.1.2.1	Correct Handling of DL MAC PDU / Assignment / HARQ process	Rel-15	R	UEs supporting 5GS
7.1.1.2.2	Correct Handling of DL HARQ process PDSCH Aggregation	Rel-15	C20	UEs supporting 5GS and PDSCH aggregation
7.1.1.2.3	Correct HARQ process handling / CCCH	Rel-15	R	UEs supporting 5GS
7.1.1.2.4	Correct HARQ process handling / BCCH	Rel-15	R	UEs supporting 5GS
7.1.1.3	**Uplink Data Transfer**			
7.1.1.3.1	Correct Handling of UL MAC PDU / Assignment / HARQ process	Rel-15	R	UEs supporting 5GS
7.1.1.3.2	Logical channel prioritization handling	Rel-15	C02	UEs supporting 5GS and RLC UM Mode
7.1.1.3.2b	Logical channel prioritization handling with Mapping restrictions	Rel-15	R	UEs supporting 5GS
7.1.1.3.3	Correct handling of MAC control information / Scheduling requests	Rel-15	C53	UEs supporting 5GS and Logical Channel SR-Delay Timer
7.1.1.3.4	Correct handling of MAC control information / Buffer status / UL data arrive in the UE Tx buffer / Regular BSR	Rel-15	R	UEs supporting 5GS
7.1.1.3.5	Correct handling of MAC control information / Buffer Status / UL resources are allocated / Padding BSR	Rel-15	R	UEs supporting 5GS
7.1.1.3.6	Correct handling of MAC control information / Buffer status / Periodic BSR timer expires	Rel-15	R	UEs supporting 5GS
7.1.1.3.7	UE power headroom reporting / Periodic reporting / DL pathloss change reporting	Rel-15	R	UEs supporting 5GS
7.1.1.3.8	**UE power headroom reporting / SCell activation / DL pathloss change reporting**			
7.1.1.3.8.1	UE power headroom reporting / SCell activation / DL pathloss change reporting / Intra-band Contiguous CA	Rel-15	C81	UEs supporting 5GS and intra-band contiguous CA and UL NR CA with 2 carriers
7.1.1.3.8.2	UE power headroom reporting / SCell activation / DL pathloss change reporting / Inter-band CA	Rel-15	C82	UEs supporting 5GS and inter-band CA and UL NR CA with 2 carriers
7.1.1.3.8.3	UE power headroom reporting / SCell activation / DL pathloss change reporting / Intra-band non Contiguous CA	Rel-15	C83	UEs supporting 5GS and intra-band non-contiguous CA and UL NR CA with 2 carriers
7.1.1.3.9	Correct Handling of UL HARQ process / PUSCH Aggregation	Rel-15	C51	UEs supporting 5GS and PUSCH aggregation
7.1.1.3.10	Correct Handling of HARQ process / Multiple CORESETPoolIndex	Rel-16	C107	UEs supporting 5GS and multi-DCI based Multi-TRP
7.1.1.3.11	Correct handling of UL grant prioritization	Rel-16	C114	UEs supporting 5GS and LCH-based UL grant prioritization
7.1.1.3.12	Correct Handling of UL HARQ process / PUSCH Repetition Type B	Rel-16	C134	UEs supporting PUSCH repetition type B
7.1.1.4	**Transport Size Selection**			
7.1.1.4.1	**DL-SCH Transport Block Size Selection**			
7.1.1.4.1.1	DL-SCH Transport Block Size selection / DCI format 1_0	Rel-15	C64	UEs supporting 5GS
7.1.1.4.1.2	Void			
7.1.1.4.1.3	DL-SCH transport block size selection / DCI format 1_1 / RA type 0/RA Type 1 / 2 Codewords enabled	Rel-15	R	UEs supporting 5GS and The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2. If absent, the UE doesn't support MIMO on this carrier
7.1.1.4.1.4	DL-SCH transport block size selection / DCI format 1_1 / RA type 0/RA Type 1 / 2 Codewords enabled / 256QAM	Rel-15	C65	UEs supporting 5GS and The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2. If absent, the UE doesn't support MIMO on this carrier and 256QAM for PUSCH
7.1.1.4.2	**UL-SCH Transport Block Size Selection**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
7.1.1.4.2.1	UL-SCH Transport Block Size selection / DCI format 0_0 / Transform precoding disabled	Rel-15	R	UEs supporting 5GS
7.1.1.4.2.2	Void			
7.1.1.4.2.3	UL-SCH transport block size selection / DCI format 0_1 / RA type 0/RA Type 1 / Transform precoding disabled	Rel-15	R	UEs supporting 5GS
7.1.1.4.2.4	UL-SCH transport block size selection / DCI format 0_1 / RA type 0/RA Type 1 / 256QAM / Transform precoding disabled	Rel-15	C11	UEs supporting 5GS and 256QAM for PDSCH for FR1/FR2
7.1.1.4.2.5	UL-SCH Transport Block Size selection / DCI format 0_0 / Transform precoding and 64QAM	Rel-15	R	UEs supporting 5GS
7.1.1.5	**Discontinuous reception**			
7.1.1.5.1	DRX operation / Short cycle not configured / Parameters configured by RRC	Rel-15	C03	UEs supporting 5GS and long DRX cycle
7.1.1.5.2	DRX operation / Short cycle not configured / Long DRX command MAC control element reception	Rel-15	C03	UEs supporting 5GS and long DRX cycle
7.1.1.5.3	DRX operation / Short cycle configured / Parameters configured by RRC	Rel-15	C04	UEs supporting 5GS and short DRX cycle
7.1.1.5.4	DRX operation / Short cycle configured / DRX command MAC control element reception	Rel-15	C04	UEs supporting 5GS and short DRX cycle
7.1.1.5.5	DRX operation / Short cycle configured / Long DRX command MAC control element reception	Rel-15	C70	UEs supporting 5GS and long DRX cycle and short DRX cycle
7.1.1.6	**Semi-Persistent Scheduling**			
7.1.1.6.1	Correct handling of DL assignment / Semi-persistent case	Rel-15	C17	UEs supporting 5GS and PDSCH reception based on semi-persistent scheduling
7.1.1.6.2	Correct handling of UL grant / configured grant Type 1	Rel-15	C18	UEs supporting 5GS and Type 1 PUSCH transmissions with configured grant
7.1.1.6.3	Correct handling of UL grant / configured grant Type 2	Rel-15	C19	UEs supporting 5GS and Type 2 PUSCH transmissions with configured grant
7.1.1.6.4	Correct handling of DL assignment / Multi Semi-persistent configuration	Rel-16	C113	UEs supporting 5GS and PDSCH reception based on multiple semi-persistent scheduling
7.1.1.7	**Activation/Deactivation of SCells**			
7.1.1.7.1	**Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer**			
7.1.1.7.1.1	Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Intra-band Contiguous CA	Rel-15	C44	UEs supporting 5GS and intra-band contiguous CA
7.1.1.7.1.2	Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Inter-band CA	Rel-15	C45	UEs supporting 5GS and inter-band CA
7.1.1.7.1.3	Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Intra-band non-Contiguous CA	Rel-15	C46	UEs supporting 5GS and intra-band non-contiguous CA
7.1.1.8	**Bandwidth Part (BWP) operation**			
7.1.1.8.1	Bandwidth Part (BWP) operation UL/DL	Rel-15	C66	UEs supporting 5GS and (DCI and timer based active BWP switching delay type1 or type2) and (Support of BWP adaptation upto2 or up to 4)
7.1.1.9	**MAC Reconfiguration and Reset**			
7.1.1.9.1	MAC Reset	Rel-15	R	UEs supporting 5GS
7.1.1.10	**Other Procedures**			
7.1.1.10.1	DataInactivityTimer expiry	Rel-15	C21	UEs supporting 5G Core
7.1.1.10.2	Recommended Bit Rate	Rel-15	C100	UEs supporting 5G Core and MTSI speech
7.1.1.11	**NR Dual Connectivity**			
7.1.1.11.1	DC power headroom reporting / PSCell activation and DL pathloss change reporting	Rel-15	C80	UEs supporting NR-DC
7.1.1.12	**UE Power Saving**			
7.1.1.12.1	Void			
7.1.1.12.3	DRX adaptation / UE wakeup indication	Rel-16	C103	UEs supporting 5GS and Long DRX Cycle and DRX adaptation
7.1.1.12.4.1	DRX adaptation / SCell dormancy indication / Intra-band Contiguous CA	Rel-16	C118	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and intra-band contiguous CA
7.1.1.12.4.2	DRX adaptation / SCell dormancy indication / Intra-band non Contiguous CA	Rel-16	C119	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and intra-band non-contiguous CA

Clause	TC Title	Release	Applicability	
			Condition	Comment
7.1.1.12.4.3	DRX adaptation / SCell dormancy indication / Inter-band CA	Rel-16	C120	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and inter-band CA
7.1.2	**RLC**			
7.1.2.2	**RLC Unacknowledged Mode**			
7.1.2.2.1	UM RLC / Segmentation and reassembly / 6-bit SN / Segmentation Info (SI) field	Rel-15	C05	UEs supporting 5GS and RLC UM with 6-bit length of RLC sequence number
7.1.2.2.2	UM RLC / Segmentation and reassembly / 12-bit SN / Segmentation Info (SI) field	Rel-15	C06	UEs supporting 5GS and RLC UM with 12-bit length of RLC sequence number
7.1.2.2.3	UM RLC / 6-bit SN / Correct use of sequence numbering	Rel-15	C05	UEs supporting 5GS and RLC UM with 6-bit length of RLC sequence number
7.1.2.2.4	UM RLC / 12-bit SN / Correct use of sequence numbering	Rel-15	C06	UEs supporting 5GS and RLC UM with 12-bit length of RLC sequence number
7.1.2.2.5	UM RLC / Receive Window operation and t-Reassembly expiry	Rel-15	C02	UEs supporting 5GS and RLC UM Mode
7.1.2.2.6	UM RLC / RLC re-establishment procedure	Rel-15	C02	UEs supporting 5GS and RLC UM Mode
7.1.2.3	**RLC Acknowledged Mode**			
7.1.2.3.1	AM RLC / 12-bit SN / Segmentation and reassembly / Segmentation Info (SI) field	Rel-15	C07	UEs supporting 5GS and RLC AM with 12-bit length of RLC sequence number
7.1.2.3.2	AM RLC / 18-bit SN / Segmentation and reassembly / Segmentation Info (SI) field	Rel-15	R	UEs supporting 5GS
7.1.2.3.3	AM RLC / 12-bit SN / Correct use of sequence numbering	Rel-15	C07	UEs supporting 5GS and RLC AM with 12-bit length of RLC sequence number
7.1.2.3.4	AM RLC / 18-bit SN / Correct use of sequence numbering	Rel-15	R	UEs supporting 5GS and RLC
7.1.2.3.5	AM RLC / 12-bit SN / Control of transmit window / Control of receive window	Rel-15	C07	UEs supporting 5GS and RLC AM with 12-bit length of RLC sequence number
7.1.2.3.5a	AM RLC / 18-bit SN / Control of transmit window / Control of receive window	Rel-15	R	UEs supporting 5GS
7.1.2.3.6	AM RLC / Polling for status	Rel-15	R	UEs supporting 5GS
7.1.2.3.7	AM RLC / Receiver status triggers	Rel-15	R	UEs supporting 5GS
7.1.2.3.8	AM RLC / Reconfiguration of RLC parameters by upper layers	Rel-15	R	UEs supporting 5GS
7.1.2.3.9	AM RLC / Reassembling of AMD PDUs	Rel-15	R	UEs supporting 5GS
7.1.2.3.10	AM RLC / Re-transmission of RLC PDU with and without re-segmentation	Rel-15	R	UEs supporting 5GS
7.1.2.3.11	AM RLC / RLC re-establishment procedure	Rel-15	R	UEs supporting 5GS
7.1.3	**PDCP**			
7.1.3.1	**Maintenance of PDCP sequence numbers for radio bearers**			
7.1.3.1.1	Maintenance of PDCP sequence numbers / User plane / 12-bit SN	Rel-15	C08	UEs supporting 5GS and 12-bit length of PDCP sequence number
7.1.3.1.2	Maintenance of PDCP sequence numbers / User plane / 18-bit SN	Rel-15	R	UEs supporting 5GS
7.1.3.2	**PDCP Integrity protection**			
7.1.3.2.1	Integrity protection / Correct functionality of integrity algorithm SNOW3G / SRB / DRB	Rel-15	R	UEs supporting 5GS
7.1.3.2.2	Integrity protection / Correct functionality of integrity algorithm AES / SRB / DRB	Rel-15	R	UEs supporting 5GS
7.1.3.2.3	Integrity protection / Correct functionality of integrity algorithm ZUC / SRB / DRB	Rel-15	C09	UEs supporting 5GS and ZUC algorithm
7.1.3.3	**PDCP Ciphering and deciphering**			
7.1.3.3.1	Ciphering and deciphering / Correct functionality of encryption algorithm SNOW3G / SRB / DRB	Rel-15	R	UEs supporting 5GS
7.1.3.3.2	Ciphering and deciphering / Correct functionality of encryption algorithm AES / SRB / DRB	Rel-15	R	UEs supporting 5GS
7.1.3.3.3	Ciphering and deciphering / Correct functionality of encryption algorithm ZUC / SRB / DRB	Rel-15	C09	UEs supporting 5GS and ZUC algorithm
7.1.3.4	**PDCP Handover**			
7.1.3.4.1	PDCP handover / Lossless handover / PDCP sequence number maintenance / PDCP status report to convey the information on missing or acknowledged PDCP SDUs at handover / In-order delivery and duplicate elimination in the downlink	Rel-15	R	UEs supporting 5GS
7.1.3.4.2	PDCP handover / Non-lossless handover / PDCP sequence number maintenance	Rel-15	R	UEs supporting 5GS
7.1.3.4.3	PDCP handover / DAPS handover with key change / Status reporting / Intra-frequency	Rel-16	C101	UEs supporting 5G Core and intra-frequency DAPS handover
7.1.3.5	**PDCP other**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
7.1.3.5.1	PDCP Discard	Rel-15	C02	UEs supporting 5GS and RLC UM Mode
7.1.3.5.2	PDCP Uplink Routing / Split DRB	Rel-15	C10	UEs supporting EN-DC and UL transmission via both MCG path and SCG path for the split DRB
			C97	UEs supporting NR-DC and UL transmission via both MCG path and SCG path for the split DRB
7.1.3.5.3	PDCP Data Recovery	Rel-15	C01	UEs supporting EN-DC
			C80	UEs supporting NR-DC
7.1.3.5.4	PDCP reordering / Maximum re-ordering delay below t-Reordering / t-Reordering timer operations	Rel-15	R	UEs supporting 5GS
7.1.3.5.5	PDCP Duplication	Rel-15	C62	UEs supporting EN-DC and PDCP duplication over split DRB
			C98	UEs supporting NR-DC and PDCP duplication over split DRB
7.1.3.5.6	PDCP Duplication / 3 RLC entities	Rel-16	C104	UEs supporting 5GC and Intra-band contiguous CA and DL NR CA with 3 carriers and PDCP duplication with more than two RLC entities
7.1.3.5.7	Ethernet header compression and decompression / Correct functionality of ethernet header compression and decompression	Rel-16	C105	UEs supporting 5GS and RLC UM Mode and PDCP ethernet header compression
7.1.4	**SDAP**			
7.1.4.1	SDAP Data Transfer and PDU Header Handling UL/DL	Rel-15	C21A	UEs supporting 5G Core and reflective QoS
7.1.4.2	SDAP Data Transfer handling without Header UL/DL	Rel-15	C21	UEs supporting 5G Core

Table 4.1-2b: Additional Information of Applicability of Protocol conformance Layer 2 test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
7				
7.1				
7.1.1				
7.1.1.1 7.1.1.1.4	pc_csi_RS_CFRA_ForHO			
7.1.1.4				
7.1.1.4.1				
7.1.1.4.1.3	pc_dynamicSwitchRA_Type0_1_PDSCH			
7.1.1.4.1.4	pc_dynamicSwitchRA_Type0_1_PDSCH			
7.1.1.4.2				
7.1.1.4.2.3	pc_dynamicSwitchRA_Type0_1_PUSCH			
7.1.1.4.2.4	pc_dynamicSwitchRA_Type0_1_PUSCH			
7.1.1.6				
7.1.1.6.4	pc_um_WithShortSN			
7.1.1.7				
7.1.1.7.1				
7.1.1.7.1.1	pc_UL_NR_CA_2CC			
7.1.1.7.1.2	pc_UL_NR_CA_2CC			
7.1.1.7.1.3	pc_UL_NR_CA_2CC			
7.1.2				
7.1.2.2				
7.1.2.2.5	pc_um_WithShortSN			
7.1.2.2.6	pc_um_WithShortSN			
7.1.3				
7.1.3.2.1	pc_srb3			

Table 4.1-3a: Applicability of Protocol conformance RRC test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
8	**RRC**			
8.1	**NR RRC**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.1.1	**RRC connection management procedures**			
8.1.1.1	**Paging**			
8.1.1.1.1	RRC / Paging for connection / Multiple paging records	Rel-15	C21	UEs supporting 5G Core
8.1.1.1.2	RRC / Paging for connection / Shared network environment	Rel-15	C21	UEs supporting 5G Core
8.1.1.2	**RRC connection establishment**			
8.1.1.2.1	RRC connection establishment / Return to idle state after T300 expiry	Rel-15	C21	UEs supporting 5G Core
8.1.1.2.2	Void			
8.1.1.2.3	RRC connection establishment / RRC Reject with wait time	Rel-15	C21	UEs supporting 5G Core
8.1.1.2.4	RRC connection establishment / Extended and spare fields in SI	Rel-15 only	C21	UEs supporting 5G Core
8.1.1.3	**RRC release**			
8.1.1.3.1	RRC connection release / Redirection to another NR frequency	Rel-15	C21	UEs supporting 5G Core
8.1.1.3.2	RRC connection release / Redirection from NR to E-UTRA	Rel-15	C32	UEs supporting 5G Core and E-UTRA
8.1.1.3.3	RRC connection release / Success / With priority information	Rel-15	C21	UEs supporting 5G Core
8.1.1.3.4	RRC connection release / Success / With priority information / E-UTRA	Rel-15	C26	UEs supporting 5GS and E-UTRA
8.1.1.3.5	Void			
8.1.1.3.6	Void			
8.1.1.3.7	RRC connection release / Success / Deprioritisation / T325 expiry	Rel-15	C133	UEs supporting 5G Core and RRC connection release with Deprioritisation
8.1.1.4	**RRC resume**			
8.1.1.4.1	RRC resume / Suspend-Resume / RNA update / Success	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
8.1.1.4.2	RRC resume / Suspend-Resume / RRC setup / T319 expiry	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
8.1.1.4.3	Void			
8.1.2	**RRC reconfiguration**			
8.1.2.1	**Radio bearer establishment / reconfiguration / release**			
8.1.2.1.1	RRC reconfiguration / DRB / SRB / Establishment / Modification / Release / Success	Rel-15	C21	UEs supporting 5G Core
8.1.2.1.2	RRC reconfiguration / RRC bearer establishment / uplinkTxDirectCurrentList	Rel-15	C21	UEs supporting 5G Core
8.1.2.1.3	Void			
8.1.2.1.4	RRC reconfiguration / Dedicated RLF timer	Rel-15	R	UEs supporting 5GS
8.1.2.1.5	**NR CA / RRC reconfiguration / SCell addition / modification / release / Success**			
8.1.2.1.5.1	NR CA / RRC reconfiguration / SCell addition / modification / release / Success / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.2.1.5.2	NR CA / RRC reconfiguration / SCell addition / modification / release / Success / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.2.1.5.3	NR CA / RRC reconfiguration / SCell addition / modification / release / Success / Intra-band non-contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.3	**Measurement configuration control and reporting**			
8.1.3.1	**Intra NR measurements**			
8.1.3.1.1	Measurement configuration control and reporting / Intra NR measurements / Event A1 / Event A2	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.2	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cell / Intra-frequency measurements	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.3	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cell / Inter-frequency measurements	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.4	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cell / Inter-band measurements	Rel-15	C94	UEs supporting 5G Core and multiple NR bands
8.1.3.1.5	Measurement configuration control and reporting / Event A4 / Measurement of	Rel-15	C21	UEs supporting 5G Core

Clause	TC Title	Release	Applicability	
			Condition	Comment
	Neighbour NR cell / Intra-frequency measurements			
8.1.3.1.6	Measurement configuration control and reporting / Event A4 / Measurement of Neighbour NR cell / Inter-frequency measurements	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.7	Measurement configuration control and reporting / Event A4 / Measurement of Neighbour NR cell / Inter-band measurements	Rel-15	C94	UEs supporting 5G Core and multiple NR bands
8.1.3.1.8	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Intra-frequency measurements	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.9	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Inter-frequency measurements	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.10	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Inter-band measurements	Rel-15	C94	UEs supporting 5G Core and multiple NR bands
8.1.3.1.11	Measurement configuration control and reporting / Intra NR measurements / Two simultaneous events A3 (intra and inter-frequency measurements) / RSRQ based measurements	Rel-15	C21	UEs supporting 5GCore
8.1.3.1.12	Measurement configuration control and reporting / Intra NR measurements / Two simultaneous events A5 (intra and inter-frequency measurements) / SINR based measurements	Rel-15	C40	UEs supporting 5G Core and SS-SINR measurements
8.1.3.1.13	Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based intra-frequency measurements / Measurement of Neighbour NR cell	Rel-15	C52	UEs supporting 5G Core and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements and at least periodical reporting) and CSI-RSRP and CSI-RSRQmeasurement
8.1.3.1.14	Void			
8.1.3.1.14A	Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based inter-frequency measurements / Measurement of Neighbour NR cell	Rel-15	C52	UEs supporting 5G Core and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements and at least periodical reporting) and CSI-RSRP and CSI-RSRQmeasurement
8.1.3.1.15	Void			
8.1.3.1.15A	Measurement configuration control and reporting / Intra NR measurements / Blacklisting	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.16	Measurement configuration control and reporting / Intra NR measurements / Whitelisting	Rel-15	C21	UEs supporting 5G Core
8.1.3.1.17	**NR CA / Measurement configuration control and reporting / Intra NR measurements / Event A6**			
8.1.3.1.17.1	NR CA / Measurement configuration control and reporting / Intra NR measurements / Event A6 / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.3.1.17.2	NR CA / Measurement configuration control and reporting / Intra NR measurements / Event A6 / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.3.1.17.3	NR CA / Measurement configuration control and reporting / Intra NR measurements / Event A6 / Intra-band non-Contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.3.1.18	**NR CA / Measurement configuration control and reporting / Intra NR measurements / Additional measurement reporting**			
8.1.3.1.18.1	NR CA / Measurement configuration control and reporting / Intra NR measurements / Additional measurement reporting / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.3.1.18.2	NR CA / Measurement configuration control and reporting / Intra NR measurements / Additional measurement reporting / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.3.1.18.3	NR CA / Measurement configuration control and reporting / Intra NR measurements /	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA

Clause	TC Title	Release	Applicability	
			Condition	Comment
	Additional measurement reporting / Intra-band non-Contiguous CA			
8.1.3.1.20	Measurement configuration control and reporting / Measurement Gaps / gapFR1	Rel-15	C49	UE supporting 5G Core and two independent measurement gap configurations for FR1 and FR2
8.1.3.1.21	Measurement configuration control and reporting / Measurement Gaps / gapFR2	Rel-15	C49	UE supporting 5G Core and two independent measurement gap configurations for FR1 and FR2
8.1.3.1.23	Measurement configuration control and reporting / Intra NR measurements / Continuation of the measurements after RRC Resume	Rel-15	C21	UEs supporting 5G Core
8.1.3.2	**Inter-RAT measurements**			
8.1.3.2.1	Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of E-UTRA cells	Rel-15	C31	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting
8.1.3.2.2	Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of E-UTRA cells	Rel-15	C31	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting
8.1.3.2.3	Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of E-UTRA cells / RSRQ based measurements	Rel-15	C31	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting
8.1.3.2.4	Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of E-UTRA cells / SINR based measurements	Rel-15	C50	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting and SS-SINR measurements
8.1.3.2.5	Void			
8.1.3.2.6	Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / NR to UTRA	Rel-16	C127	UEs supporting 5G Core and UTRA and NR to UTRA-FDD CELL_DCH CS handover
8.1.3.2.7	Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / NR to UTRA	Rel-16	C127	UEs supporting 5G Core and UTRA and NR to UTRA-FDD CELL_DCH CS handover
8.1.3.2.8	Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / NR to UTRA	Rel-16	C127	
8.1.3.3	**Measurement for self-optimized networks**			
8.1.3.3.1	Measurement configuration control and reporting / CGI reporting of NR cell	Rel-15	C59	UEs supporting 5G Core and Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when EN-DC is not configured.
8.1.3.3.2	Measurement configuration control and reporting / CGI reporting of E-UTRA cell	Rel-15	C60	UEs supporting 5G Core and Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the EN-DC is not configured.
8.1.4	**Handover**			
8.1.4.1	**Intra NR handover**			
8.1.4.1.1	Void			
8.1.4.1.2	Intra NR handover / Success / Inter-frequency	Rel-15	C21	UEs supporting 5G Core
8.1.4.1.3	Void			
8.1.4.1.4	Void			
8.1.4.1.5	Intra NR handover / Failure / Re-establishment successful	Rel-15	C21	UEs supporting 5G Core
8.1.4.1.6	Intra NR handover / Failure / Re-establishment failure	Rel-15	C21	UEs supporting 5G Core
8.1.4.1.7	**NR CA / Intra NR handover / Success / PCell Change and SCell addition / SCell release**			
8.1.4.1.7.1	NR CA / Intra NR handover / Success / PCell Change and SCell addition / SCell release / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.4.1.7.2	NR CA / Intra NR handover / Success / PCell Change and SCell addition / SCell release / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.4.1.7.3	NR CA / Intra NR handover / Success / PCell Change and SCell addition / SCell release / Intra-band non-contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.1.4.1.8	**NR CA / Intra NR handover / Success / PCell Change / SCell no Change**			
8.1.4.1.8.1	NR CA / Intra NR handover / Success / PCell Change / SCell no Change / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.4.1.8.2	NR CA / Intra NR handover / Success / PCell Change / SCell no Change / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.4.1.8.3	NR CA / Intra NR handover / Success / PCell Change / SCell no Change / Intra-band non-contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.4.1.9	**NR CA / Intra NR handover / Failure / Re-establishment successful**			
8.1.4.1.9.1	NR CA / Intra NR handover / Failure / Re-establishment successful / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.4.1.9.2	NR CA / Intra NR handover / Failure / Re-establishment successful / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.4.1.9.3	NR CA / Intra NR handover / Failure / Re-establishment successful / Intra-band non-contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.4.2	**Inter-RAT handover**			
8.1.4.2.1	**Inter-RAT handover from NR**			
8.1.4.2.1.1	Inter-RAT handover / From NR to E-UTRA / Success	Rel-15	C32	UEs supporting 5G Core and E-UTRA
8.1.4.2.1.2	Inter-RAT handover / From NR to EN-DC / Success	Rel-16	C96	UEs supporting 5G Core and EN-DC and inter-RAT Handover from NR to EN-DC
8.1.4.2.2	**Inter-RAT handover to NR**			
8.1.4.2.2.1	Inter-RAT handover / From E-UTRA to NR / Success	Rel-15	C99	UEs supporting 5GS and E-UTRA and (inter-RAT Handover to NR FR1 TDD from EUTRA connected to EPC or inter-RAT Handover to NR FR1 FDD from EUTRA connected to EPC or inter-RAT Handover to NR FR2 TDD from EUTRA connected to EPC)
8.1.4.3	**DAPS handover**			
8.1.4.3.1	DAPS handover / Success / Intra-frequency	Rel-16	C101	UEs supporting 5G Core and intra-frequency DAPS handover
8.1.4.3.4	DAPS handover / Success / Inter-frequency	Rel-16	C130	UEs supporting 5G Core and inter-frequency DAPS handover
8.1.4.4	**Conditional handover**			
8.1.4.4.1	Conditional handover / Success / A3 / A5 / A3+A5	Rel-16	C116	UEs supporting 5G Core and conditional handover and supporting 2 trigger events for same execution condition
8.1.4.4.2	Conditional handover / modify conditional handover configuration	Rel-16	C115	UEs supporting 5G Core and conditional handover
8.1.4.4.3	Conditional handover / Failure	Rel-16	C117	UEs supporting 5G Core and conditional handover and conditional handover during re-establishment procedure when the selected cell is configured as candidate cell for condition handover
8.1.5	**RRC others**			
8.1.5.1	**UE capability transfer**			
8.1.5.1.1	UE Capability transfer / Success	Rel-15	C21	UEs supporting 5G Core
8.1.5.2	**SI change / On-demand SIB**			
8.1.5.2.1	Void			
8.1.5.2.2	SI change / Notification of BCCH modification / Short message for SI update in NR RRC_CONNECTED state	Rel-15	R	UEs supporting 5GS
8.1.5.3	**PWS notification**			
8.1.5.3.1	PWS notification / PWS reception in NR RRC_IDLE state	Rel-15	C35	UEs supporting 5G Core and (ETWS reception or CMAS reception)
8.1.5.3.2	PWS notification / PWS reception in NR RRC_INACTIVE state	Rel-15	C111	UEs supporting 5G Core and (ETWS reception or CMAS reception) and RRC_INACTIVE
8.1.5.3.3	PWS notification / PWS reception in NR RRC_CONNECTED state	Rel-15	C35	UEs supporting 5G Core and (ETWS reception or CMAS reception)
8.1.5.3.4	PWS notification / PWS reception using dedicatedSystemInformationDelivery	Rel-15	C35	UEs supporting 5G Core and (ETWS reception or CMAS reception)
8.1.5.4	**Counter check**			
8.1.5.4.1	Counter check / Reception of CounterCheck message by the UE	Rel-15	C21	UEs supporting 5G Core
8.1.5.5	**Redirection to NR**			
8.1.5.5.1	Redirection to NR / From E-UTRA / Success	Rel-15	C21	UEs supporting 5G Core
8.1.5.6	**Radio link failure**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.1.5.6.1	Radio link failure / RRC connection re-establishment success	Rel-15	C21	UEs supporting 5G Core
8.1.5.6.2	Void			
8.1.5.6.3	Radio link failure / T311 expiry	Rel-15	C21	UEs supporting 5G Core
8.1.5.6.4	Void			
8.1.5.6.5	**NR CA / No Radio Link Failure on SCell / RRC Connection Continues on Pcell**			
8.1.5.6.5.1	NR CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.5.6.5.2	NR CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.5.6.5.3	NR CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Intra-band non-Contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.5.7	**Failure information**			
8.1.5.7.1	**Failure information / RLC failure / MCG**			
8.1.5.7.1.1	Failure information / RLC failure / MCG / Intra-band Contiguous CA	Rel-15	C72	UEs supporting 5G Core and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.1.5.7.1.2	Failure information / RLC failure / MCG / Inter-band CA	Rel-15	C73	UEs supporting 5G Core and inter-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.1.5.7.1.3	Failure information / RLC failure / MCG / Intra-band non Contiguous CA	Rel-15	C74	UEs supporting 5G Core and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.1.5.8	**Processing delay**			
8.1.5.8.1	Processing delay / RRC_Idle to RRC_Connected / RRC_Inactive to RRC_Connected / Success / Latency check	Rel-15	C21	UEs supporting 5G Core
8.1.5.8.2	**Processing delay / RRC_Inactive to RRC_Connected / Success / Latency check / SCell addition**			
8.1.5.8.2.1	Processing delay / RRC_Inactive to RRC_Connected / Success / Latency check / SCell addition / Intra-band Contiguous CA	Rel-15	C41	UEs supporting 5G Core and intra-band contiguous CA
8.1.5.8.2.2	Processing delay / RRC_Inactive to RRC_Connected / Success / Latency check / SCell addition / Inter-band CA	Rel-15	C42	UEs supporting 5G Core and inter-band CA
8.1.5.8.2.3	Processing delay / RRC_Inactive to RRC_Connected / Success / Latency check / SCell addition / Intra-band non-Contiguous CA	Rel-15	C43	UEs supporting 5G Core and intra-band non-contiguous CA
8.1.5.9	**RACS / UL Message Segment transfer**			
8.1.5.9.1	RACS / UL Message Segment transfer / UECapabilityInformation	Rel-16	C129	UEs supporting 5G Core and RRC message Segmentation in the UL and support of test function for using a preconfigured UE capability container over NR
8.1.6	**SON and MDT support for NR**			
8.1.6.1	**Intra NR MDT**			
8.1.6.1.1	**Immediate MDT**			
8.1.6.1.1.1	Immediate MDT / Measurement reporting / Location information	Rel-16	C121	UEs supporting 5G Core and standalone GNSS receiver to provide detailed location information
8.1.6.1.1.2	Immediate MDT / Measurement / Latency metrics for UL PDCP Packet Delay per DRB	Rel-16	C122	UEs supporting 5G Core and UL PDCP Packet Delay per DRB
8.1.6.1.2	**Logged MDT**			
8.1.6.1.2.1	Logged MDT / RRC_IDLE / Logging and reporting / Intra-frequency measurement	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.2	Logged MDT / RRC_INACTIVE / Logging and reporting / Inter-frequency measurement	Rel-16	C125	UEs supporting 5G core and RRC_INACTIVE and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.3	Logged MDT / RRC_IDLE / Logging and reporting / Limiting area scope	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.4	logged MDT/ RRC_IDLE / Logging and reporting / periodic measurement trigger	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.5	logged MDT/ RRC_IDLE / Logging and reporting / event-based trigger	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.6	logged MDT/ RRC_IDLE / Logging and reporting / event-based trigger / out-of-coverage	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.1.6.1.2.7	Logged MDT / RRC_IDLE / Logging and reporting / Reporting at NR re-establishment	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.8	Logged MDT / Logging and reporting / Reporting at RRC reconfiguration	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.9	Logged MDT / Location information	Rel-16	C124	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE and equipped with a GNSS receiver to provide detailed location information.
8.1.6.1.2.10	Logged MDT / Maintaining logged measurement configuration / UE mobility	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.11	Logged MDT / Maintaining logged measurement configuration / UE state transitions	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.12	Logged MDT / Release of logged MDT measurement configuration / Expire of duration timer	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.2.13	Logged MDT / Release of logged MDT measurement configuration / Reception of new logged measurement configuration	Rel-16	C123	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
8.1.6.1.3	**Radio Link Failure report**			
8.1.6.1.3.1	Radio Link Failure / Reporting of Intra-frequency measurements	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.3.2	Radio Link Failure / Reporting of Inter-frequency measurements	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.3.3	Radio Link Failure / Reporting at RRC connection establishment and reestablishment	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.3.4	Radio Link Failure / Reporting at NR handover	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.3.5	Radio Link Failure / Location information	Rel-16	C121	UEs supporting 5G Core and standalone GNSS receiver to provide detailed location information
8.1.6.1.3.6	Radio Link Failure / RACH failure report	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.3.7	Radio Link Failure / Logging and reporting / Reporting at intra NR handover / PLMN list	Rel-16	C21	UEs supporting 5G Core
8.1.6.1.4	**Connection Establishment Failure**			
8.1.6.1.4.1	Connection Establishment Failure / Logging and reporting / T300 expiry	Rel-16	C126	UEs supporting 5G Core, NR measurements and CEF (Connection Establishment Failure) logging and reporting.
8.1.6.1.4.2	Connection Establishment Failure / Logging and reporting / RRC Resume	Rel-16	C126	UEs supporting 5G Core, NR measurements and CEF (Connection Establishment Failure) logging and reporting.
8.1.6.1.4.3	Connection Establishment Failure / Logging and reporting / Reporting at intra-NR handover	Rel-16	C21	UEs supporting 5G Core.
8.1.6.1.4.4	Connection Establishment Failure / Logging and reporting / Reporting at RRC connection re-establishment	Rel-16	C21	UEs supporting 5G Core.
8.1.6.1.4.5	Connection Establishment Failure / Logging and reporting / Location Information	Rel-16	C126	UEs supporting 5G Core and equipped with a GNSS or A-GNSS receiver to provide detailed location information.
8.1.6.1.4.6	Connection Establishment Failure / Logging and reporting / Reporting of Intra-frequency measurements	Rel-16	C21	UEs supporting 5G Core..
8.1.6.1.4.7	Connection Establishment Failure / Logging and reporting / Reporting of Inter-frequency measurements	Rel-16	C21	UEs supporting 5G Core.
8.1.6.1.4.8	Connection Establishment Failure / Logging and reporting / RACH failure report	Rel-16	C136	UEs supporting 5G Core and delivery of rachReport upon request from the network, NR measurements and CEF (Connection Establishment Failure) logging and reporting.
8.1.6.2	**Inter-RAT MDT**			
8.1.6.3	**Inter-System MDT**			
8.1.6.3.1	**Inter-System MDT / Immediate MDT**			
8.1.6.3.1.1	Inter-System MDT / Immediate MDT / Measurement reporting / Bluetooth measurement collection	Rel-16	C140	UEs supporting 5G core and Blluetooth Measurement Collection in Immediate MDT
8.1.6.3.1.2	Inter-System MDT / Immediate MDT / Measurement reporting / WLAN measurement collection	Rel-16	C141	UEs supporting 5G core and WLAN Measurement Collection in Immediate MDT
8.1.6.3.1.3	Inter-System MDT / Immediate MDT / Measurement reporting / sensor information	Rel-16	C139	UEs supporting 5G Core and collection of sensor information such as Barometeric pressure, UE

Clause	TC Title	Release	Applicability	
			Condition	Comment
				speed, and UE orientation information as defined in TS 37.355.
8.1.6.3.2	**Inter-System MDT / Logged MDT**			
8.1.6.3.2.1	Inter-System MDT / Logged MDT / Logging and reporting / Bluetooth measurement collection	Rel-16	C137	UEs supporting 5G coer and Bluetooth measurements in RRC_IDLE and RRC_INACTIVE state
8.1.6.3.2.2	Inter-System MDT / Logged MDT / Logging and reporting / WLAN measurement collection	Rel-16	C138	UEs supporting 5G coer and WLAN measurements in RRC_IDLE and RRC_INACTIVE state
8.1.6.3.2.3	Inter-System MDT / Logged MDT / Logging and reporting / sensor information	Rel-16	C139	UEs supporting 5G Core and collection of sensor information such as Barometeric pressure, UE speed, and UE orientation information as defined in TS 37.355.
8.1.6.3.3	**Inter-System MDT / Radio Link Failure**			
8.1.6.3.3.1	Inter-System MDT / Radio Link Failure / Logging and reporting / Bluetooth measurement collection	Rel-16	C137	UEs supporting 5G coer and Bluetooth measurements in RRC_IDLE and RRC_INACTIVE state
8.1.6.3.3.2	Inter-System MDT / Radio Link Failure / Logging and reporting / WLAN measurement collection	Rel-16	C138	UEs supporting 5G coer and WLAN measurements in RRC_IDLE and RRC_INACTIVE state
8.1.6.3.3.3	Inter-System MDT / Radio Link Failure / Logging and reporting / sensor information	Rel-16	C139	UEs supporting 5G Core and collection of sensor information such as Barometeric pressure, UE speed, and UE orientation information as defined in TS 37.355.
8.2	**MR-DC RRC**			
8.2.1	**UE Capability**			
8.2.1.1	**UE capability transfer / Success**			
8.2.1.1.1	UE capability transfer / Success / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.1.2	Void			
8.2.2	**Radio Bearer Addition, Modification and Release**			
8.2.2.1	**Radio Bearer Addition, Modification and Release / SRB**			
8.2.2.1.1	SRB3 Establishment, Reconfiguration and Release / NR addition, modification and release / EN-DC	Rel-15	C22	UEs supporting EN-DC and SRB3
8.2.2.1.2	SRB3 Establishment, Reconfiguration and Release / NR addition, modification and release / NR-DC	Rel-15	C86	UEs supporting NR-DC and SRB3
8.2.2.2	**Split SRB Establishment and Release**			
8.2.2.2.1	Split SRB Establishment and Release / EN-DC	Rel-15	C61	UEs supporting EN-DC and PDCP duplication over split SRB1/2
8.2.2.3	**Simultaneous SRB3 and Split SRB / Sequential message flow on SRB3 and Split SRB**			
8.2.2.3.1	Simultaneous SRB3 and Split SRB / Sequential message flow on SRB3 and Split SRB with one UL path / EN-DC	Rel-15	C23	UEs supporting EN-DC and SRB3 and (UL transmission via either MCG path or SCG path for the split SRB)
8.2.2.4	**PSCell Addition, Modification and Release / SCG DRB**			
8.2.2.4.1	PSCell addition, modification and release / SCG DRB / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.2.4.2	PSCell addition, modification and release / SCG DRB / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.2.5	**PSCell Addition, Modification and Release / Split DRB**			
8.2.2.5.1	PSCell addition, modification and release / Split DRB / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.2.5.2	PSCell addition, modification and release / Split DRB / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.2.6	**Bearer Modification / MCG DRB**			
8.2.2.6.1	Bearer Modification / MCG DRB / SRB / PDCP version change / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.2.7	**Bearer Modification / Handling for bearer type change without security key change**			
8.2.2.7.1	Bearer Modification / Handling for bearer type change without security key change / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.2.7.2	Bearer Modification / Handling for bearer type change without security key change / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.2.8	**Bearer Modification / Handling for bearer type change with security key change**			
8.2.2.8.1	Bearer Modification / Handling for bearer type change with security key change / EN-DC	Rel-15	C01	UEs supporting EN-DC

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2.2.8.2	Bearer Modification / Handling for bearer type change with security key change / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.2.9	**Bearer Modification / Uplink data path / Split DRB Reconfiguration**			
8.2.2.9.1	Bearer Modification / Uplink data path / Split DRB Reconfiguration / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.2.9.2	Bearer Modification / Uplink data path / Split DRB Reconfiguration / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.3	**Measurement Configuration Control and Reporting / Handovers**			
8.2.3.1	**Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of NR cells**			
8.2.3.1.1	Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of NR cells / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.2	**Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of NR cells / RSRQ based measurements**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2.3.2.1	Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of NR cells / RSRQ based measurements / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.3	**Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of NR cells**			
8.2.3.3.1	Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of NR cells / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.4	**Measurement configuration control and reporting / Event A1 / Measurement of NR PSCell**			
8.2.3.4.1	Measurement configuration control and reporting / Event A1 / Measurement of NR PSCell / EN-DC	Rel-15	C13	UEs supporting EN-DC and NR measurements and Event A triggered reporting
8.2.3.5	**Measurement configuration control and reporting / Event A2 / Measurement of NR PSCell**			
8.2.3.5.1	Measurement configuration control and reporting / Event A2 / Measurement of NR PSCell / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting)
8.2.3.6	**Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cells**			
8.2.3.6.1	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cells / Intra-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.6.1a	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cell / Inter-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.6.1b	Measurement configuration control and reporting / Event A3 / Measurement of Neighbour NR cell / Inter-band measurements / EN-DC	Rel-15	C93	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting) and multiple NR bands.
8.2.3.7	**Measurement configuration control and reporting / Event A4 (intra-frequency, inter-frequency and inter-band measurements) / Measurement of Neighbour NR cell**			
8.2.3.7.1	Measurement configuration control and reporting / Event A4 / Measurement of Neighbour NR cell / Intra-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.7.1a	Measurement configuration control and reporting / Event A4 / Measurement of Neighbour NR cell / Inter-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.7.1b	Measurement configuration control and reporting / Event A4 / Measurement of Neighbour NR cell / Inter-band measurements / EN-DC	Rel-15	C93	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting) and multiple NR bands.
8.2.3.8	**Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell**			
8.2.3.8.1	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Intra-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.8.1a	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Inter-frequency measurements / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR intra-frequency and inter-frequency measurements and at least periodical reporting)
8.2.3.8.1b	Measurement configuration control and reporting / Event A5 / Measurement of Neighbour NR cell / Inter-band measurements / EN-DC	Rel-15	C93	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting) and multiple NR bands.

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2.3.9	**Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based intra-frequency measurements / Measurement of Neighbour NR cell**			
8.2.3.9.1	Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based intra-frequency measurements / Measurement of Neighbour NR Cell / EN-DC	Rel-15	C15	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements and at least periodical reporting) and CSI-RSRP and CSI-RSRQ measurement
8.2.3.10	**Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based inter-frequency measurements / Measurement of Neighbour NR cell**			
8.2.3.10.1	Measurement configuration control and reporting / SS/PBCH block based / CSI-RS based inter-frequency measurements / Measurement of Neighbour NR Cell / EN-DC	Rel-15	C15	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements) and CSI-RSRP and CSI-RSRQ measurement
8.2.3.11	**Measurement configuration control and reporting / Measurement Gaps**			
8.2.3.11.1	Measurement configuration control and reporting / Measurement Gaps / NR FR1 / EN-DC	Rel-15	C24	UEs supporting EN-DC and (NR intra-frequency and inter-frequency measurements and at least periodical reporting) and (two independent measurement gap configurations for FR1 and FR2) and Inter-Band EN-DC within FR1
8.2.3.11.2	Measurement configuration control and reporting / Measurement Gaps / NR FR2 / EN-DC	Rel-15	C25	UEs supporting EN-DC and (NR intra-frequency and inter-frequency measurements and at least periodical reporting) and (two independent measurement gap configurations for FR1 and FR2) and Inter-Band EN-DC including FR2
8.2.3.12	**Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of NR cells**			
8.2.3.12.1	Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of NR cells / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.13	**PCell Handover with SCG change / Reconfiguration with sync / SCG DRB**			
8.2.3.13.1	PCell Handover with SCG change / Reconfiguration with sync / SCG DRB / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.14	**SCG change / Reconfiguration with sync / Split DRB**			
8.2.3.14.1	SCG change / Reconfiguration with sync / Split DRB / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.3.14.2	SCG change / Reconfiguration with sync / Split DRB / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.3.15	**Measurement configuration control and reporting / Two simultaneous events A2 and A3 (intra-frequency measurements) / Measurement of Neighbour NR cells**			
8.2.3.15.1	Measurement configuration control and reporting / Two simultaneous events A2 and A3 (intra-frequency measurements) / Measurement of Neighbour NR cells / EN-DC	Rel-15	C14	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting)
8.2.3.16	**Measurement configuration control and reporting / SRB3**			
8.2.3.16.1	Measurement configuration control and reporting / SRB3 / Intra NR measurements / EN-DC	Rel-15	C71	UEs supporting EN-DC and SRB3 and NR intra-frequency and inter-frequency measurements and at least periodical reporting
8.2.3.16.2	Measurement configuration control and reporting / SRB3 / Intra NR measurements / NR-DC	Rel-15	C87	UEs supporting NR-DC and SRB3 and NR intra-frequency and inter-frequency measurements and at least periodical reporting
8.2.4	**Carrier Aggregation**			
8.2.4.1	**NR CA / NR SCell addition / modification / release / Success**			
8.2.4.1.1	**NR CA / NR SCell addition / modification / release / Success / EN-DC**			
8.2.4.1.1.1	NR CA / NR SCell addition / modification / release / Success / EN-DC / Intra-band Contiguous CA	Rel-15	C67	UEs supporting EN-DC and Intra-Band Contiguous CA
8.2.4.1.1.2	NR CA / NR SCell addition / modification / release / Success / EN-DC / Intra-band non-Contiguous CA	Rel-15	C68	UEs supporting EN-DC and Intra-Band Non-Contiguous CA
8.2.4.1.1.3	NR CA / NR SCell addition / modification / release / Success / EN-DC / Inter-band CA	Rel-15	C69	UEs supporting EN-DC and Inter-Band CA

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2.4.2	**NR CA / Simultaneous PSCell and SCell addition / PSCell and SCell change / CA Release**			
8.2.4.2.1	**NR CA / Simultaneous PSCell and SCell addition / PSCell and SCell change / CA Release / EN-DC**			
8.2.4.2.1.1	NR CA / Simultaneous PSCell and SCell addition / PSCell and SCell change / CA Release / EN-DC / Intra-band Contiguous CA	Rel-15	C67	UEs supporting EN-DC and Intra-Band Contiguous CA
8.2.4.2.1.2	NR CA / Simultaneous PSCell and SCell addition / PSCell and SCell change / CA Release / EN-DC / Intra-band non-Contiguous CA	Rel-15	C68	UEs supporting EN-DC and Intra-Band Non-Contiguous CA
8.2.4.2.1.3	NR CA / Simultaneous PSCell and SCell addition / PSCell and SCell change / CA Release / EN-DC / Inter-band CA	Rel-15	C69	UEs supporting EN-DC and Inter-Band CA
8.2.4.3	**NR CA / SCell change / Intra-NR measurement event A6 / SRB3**			
8.2.4.3.1	**NR CA / SCell change / Intra-NR measurement event A6 / SRB3 / EN-DC**			
8.2.4.3.1.1	NR CA / SCell change / Intra-NR measurement event A6 / SRB3 / EN-DC / Intra-band Contiguous CA	Rel-15	C55	UEs supporting EN-DC and NR measurements and Event A triggered reporting and intra-band contiguous CA
8.2.4.3.1.2	NR CA / SCell change / Intra-NR measurement event A6 / SRB3 / EN-DC / Intra-band non-Contiguous CA	Rel-15	C57	UEs supporting EN-DC and NR measurements and Event A triggered reporting and intra-band non-contiguous CA
8.2.4.3.1.3	NR CA / SCell change / Intra-NR measurement event A6 / SRB3 / EN-DC / Inter-band CA	Rel-15	C56	UEs supporting EN-DC and NR measurements and Event A triggered reporting and inter-band CA
8.2.5	**Reconfiguration Failure / Radio link failure**			
8.2.5.1	**Radio link failure / PSCell addition failure**			
8.2.5.1.1	Radio link failure / Random access problem / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.5.1.2	Radio link failure / Random access problem / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.5.2	**Radio link failure / PSCell out of sync indication**			
8.2.5.2.1	Radio link failure / PSCell out of sync indication / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.5.2.2	Radio link failure / PSCell out of sync indication / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.5.3	**Radio link failure / rlc-MaxNumRetx failure**			
8.2.5.3.1	Radio link failure / rlc-MaxNumRetx failure / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.5.3.2	Radio link failure / rlc-MaxNumRetx failure / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.5.4	**Reconfiguration failure / SCG change failure**			
8.2.5.4.1	Reconfiguration failure / SCG change failure / EN-DC	Rel-15	C01	UEs supporting EN-DC
8.2.5.4.2	Reconfiguration failure / SCG change failure / NR-DC	Rel-15	C80	UEs supporting NR-DC
8.2.5.5	**Reconfiguration failure / SCG Reconfiguration failure / SRB3**			
8.2.5.5.1	Void			
8.2.5.6	**Reconfiguration failure / SCG Reconfiguration failure / SRB1**			
8.2.5.6.1	Void			
8.2.6	**MR-DC RRC others**			
8.2.6.1	**Failure information / RLC failure / SCG**			
8.2.6.1.1	**Failure information / RLC failure / SCG / EN-DC**			
8.2.6.1.1.1	Failure information / RLC failure / SCG / EN-DC / Intra-band Contiguous CA	Rel-15	C75	UEs supporting EN-DC and SRB3 and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.1.1.2	Failure information / RLC failure / SCG / EN-DC / Inter-band CA	Rel-15	C76	UEs supporting EN-DC and SRB3 and inter-band CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.1.1.3	Failure information / RLC failure / SCG / EN-DC / Intra-band non Contiguous CA	Rel-15	C77	UEs supporting EN-DC and SRB3 and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.1.2	**Failure information / RLC failure / SCG / NR-DC**			

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2.6.1.2.1	Failure information / RLC failure / SCG / NR-DC / Intra-band Contiguous CA	Rel-15	C88	UEs supporting NR-DC and SRB3 and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.1.2.2	Failure information / RLC failure / SCG / NR-DC / Inter-band CA	Rel-15	C89	UEs supporting NR-DC and SRB3 and inter-band CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.1.2.3	Failure information / RLC failure / SCG / NR-DC / Intra-band non Contiguous CA	Rel-15	C90	UEs supporting NR-DC and SRB3 and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
8.2.6.2	**Processing delay**			
8.2.6.2.1	Processing delay / PSCell addition / SCG DRB / Success / Latency check / EN-DC	Rel-15	C01	UEs supporting EN-DC

Table 4.1-3b: Additional Information of Applicability of Protocol conformance RRC test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
8.1.1				
8.1.1.1				
8.1.1.1.1	pc_inactiveState			
8.1.1.1.2	pc_inactiveState			
8.1.1.3				
8.1.1.3.2				Rel-15 E-UTRA
8.1.1.3.4				Rel-15 E-UTRA
8.1.3				
8.1.3.1				
8.1.3.1.2				
8.1.3.1.3			If 8.1.3.1.2 is executed this test case is optional (Note 2)	
8.1.3.1.4			If 8.1.3.1.2 or 8.1.3.1.3 is executed this test case is optional (Note 2)	
8.1.3.1.5			If 8.1.3.1.6 is executed this test case is optional (Note 2)	
8.1.3.1.6				
8.1.3.1.7			If 8.1.3.1.5 or 8.1.3.1.6 is executed this test case is optional (Note 2)	
8.1.3.1.8			If 8.1.3.1.9 or 8.1.3.1.10 is executed this test case is optional (Note 2)	
8.1.3.1.9			If 8.1.3.1.10 is executed this test case is optional (Note 2)	
8.1.3.1.10				
8.1.3.1.23	pc_inactiveState			
8.1.3.2				
8.1.3.2.6				Rel-16 UTRA
8.1.3.2.7				Rel-16 UTRA
8.1.4				
8.1.4.1				
8.1.4.1.2		px_NAS_5GC_CipheringAlgorithm **px_NAS_5GC_IntegrityAlgorithm**		
8.1.4.2				
8.1.4.2.1				
8.1.4.2.1.1				Rel-15 E-UTRA
8.1.4.2.1.2				Rel-16 EN-DC
8.1.4.2.2				
8.1.4.2.2.1				Rel-15 E-UTRA
8.1.5				
8.1.5.7				
8.1.5.7.1				
8.1.5.7.1.1			If 8.1.5.7.1.2 or 8.1.5.7.1.3 is executed this test case is optional	
8.1.5.7.1.2			If 8.1.5.7.1.1 or 8.1.5.7.1.3 is executed this test case is optional	
8.1.5.7.1.3			If 8.1.5.7.1.1 or 8.1.5.7.1.2 is executed this test case is optional	
8.1.5.8				
8.1.5.8.1	pc_inactiveState			
8.1.5.8.2				
8.1.5.8.2.1	pc_inactiveState		If 8.1.5.8.2.2 or 8.1.5.8.2.3 is executed this test case is optional	
8.1.5.8.2.2	pc_inactiveState		If 8.1.5.8.2.1 or 8.1.5.8.2.3 is executed this test case is optional	
8.1.5.8.2.3	pc_inactiveState		If 8.1.5.8.2.1 or 8.1.5.8.2.2 is executed this test case is optional	
8.1.5.9				
8.1.5.9.1	[10] pc_Set_UE_Cap_Info_NR			
8.1.6				

8.1.6.1				
8.1.6.1.3				
8.1.6.1.3.1			If 8.1.6.1.3.5 is executed this test case is optional.	
8.1.6.1.3.2				
8.1.6.1.3.3				
8.1.6.1.3.4				
8.1.6.1.3.5				
8.1.6.1.3.6				
8.1.6.1.3.7				
8.2.1				
8.2.2				
8.2.2.1				
8.2.2.1.1			Only executed if test case 8.2.2.3.1 is not applicable (Note 1)	
8.2.2.1.2			Only executed if test case 8.2.2.3.2 is not applicable (Note 1)	
8.2.3				
8.2.3.6				
8.2.3.6.1				
8.2.3.6.1a			If 8.2.3.6.1 is executed this test case is optional (Note 3)	
8.2.3.6.1b			If 8.2.3.6.1 or 8.2.3.6.1a is executed this test case is optional (Note 3)	
8.2.3.7				
8.2.3.7.1				
8.2.3.7.1a			If 8.2.3.7.1 is executed this test case is optional (Note 3)	
8.2.3.7.1b			If 8.2.3.7.1 or 8.2.3.7.1a is executed this test case is optional (Note 3)	
8.2.3.8				
8.2.3.8.1				
8.2.3.8.1a			If 8.2.3.8.1 is executed this test case is optional (Note 3)	
8.2.3.8.1b			If 8.2.3.8.1 or 8.2.3.8.1a is executed this test case is optional (Note 3)	
8.2.6				
8.2.6.1				
8.2.6.1.1				
8.2.6.1.1.1			If 8.2.6.1.1.2 or 8.2.6.1.1.3 is executed this test case is optional	
8.2.6.1.1.2			If 8.2.6.1.1.1 or 8.2.6.1.1.3 is executed this test case is optional	
8.2.6.1.1.3			If 8.2.6.1.1.1 or 8.2.6.1.1.2 is executed this test case is optional	
8.2.6.1.2				
8.2.6.1.2.1			If 8.2.6.1.2.2 or 8.2.6.1.2.3 is executed this test case is optional	
8.2.6.1.2.2			If 8.2.6.1.2.1 or 8.2.6.1.2.3 is executed this test case is optional	
8.2.6.1.2.3			If 8.2.6.1.2.1 or 8.2.6.1.2.2 is executed this test case is optional	

Note 1: Test cases 8.2.2.3.1 also verifies the core requirements covered by test case 8.2.2.1.1 but it is not applicable to all UE. Test case 8.2.2.3.2 and 8.2.2.1.2 are also in the same situation.

Note 2: Only one among the three intra-frequency, inter-frequency and inter-band variants is required to be executed making sure all three variants are tested at least once across measurement events A3/A4/A5.

Note 3: Only intra frequency among the three (intra-frequency, inter-frequency and inter-band) variants is required to be executed for measurement events A3/A4/A5 based on initial market requirements. May change in future similar to Note 2.

Table 4.1-4a: Applicability of Protocol conformance Mobility and Session management test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
9	**Mobility management**			
9.1	**5GS mobility management**			
9.1.1	**Primary authentication and key agreement**			
9.1.1.1	EAP based primary authentication and key agreement / EAP-AKA' related procedures	Rel-15	C21	UEs supporting 5G Core
9.1.1.2	EAP based primary authentication and key agreement / Reject	Rel-15	C21	UEs supporting 5G Core
9.1.1.3	EAP based primary authentication and key agreement / EAP message transport / Abnormal	Rel-15	C21	UEs supporting 5G Core
9.1.1.4	5G AKA based primary authentication and key agreement / 5G-AKA related procedures	Rel-15	C21	UEs supporting 5G Core
9.1.1.5	5G AKA based primary authentication and key agreement / Reject	Rel-15	C21	UEs supporting 5G Core
9.1.1.6	5G AKA based primary authentication and key agreement / Abnormal	Rel-15	C21	UEs supporting 5G Core
9.1.2	**Security mode control**			
9.1.2.1	NAS security mode command	Rel-15	C21	UEs supporting 5G Core
9.1.2.2	Protection of initial NAS signalling messages	Rel-15	C21	UEs supporting 5G Core
9.1.2.3	Integrity protection / Correct functionality of 5G NAS integrity algorithm / SNOW3G	Rel-15	C21	UEs supporting 5G Core
9.1.2.4	Integrity protection / Correct functionality of 5G NAS integrity algorithm / AES	Rel-15	C21	UEs supporting 5G Core
9.1.2.5	Integrity protection / Correct functionality of 5G NAS integrity algorithm / ZUC	Rel-15	C84	UEs supporting 5G Core and ZUC algorithm
9.1.2.6	Ciphering and deciphering / Correct functionality of 5G NAS encryption algorithm / SNOW3G	Rel-15	C21	UEs supporting 5G Core
9.1.2.7	Ciphering and deciphering / Correct functionality of 5G NAS encryption algorithm / AES	Rel-15	C21	UEs supporting 5G Core
9.1.2.8	Ciphering and deciphering / Correct functionality of 5G NAS encryption algorithm / ZUC	Rel-15	C84	UEs supporting 5G Core and ZUC algorithm
9.1.3	**Identification**			
9.1.3.1	Identification procedure	Rel-15	C21	UEs supporting 5G Core
9.1.4	**Generic UE configuration update**			
9.1.4.1	Generic UE configuration update / New 5G-GUTI, NITZ, registration requested, network slicing indication, new allowed NSSAI / Acknowledgement from the UE	Rel-15	C21	UEs supporting 5G Core
9.1.5	**Registration**			
9.1.5.1	**Initial registration**			
9.1.5.1.1	Initial registration / Success / 5G-GUTI reallocation, last visited TAI	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.2	Initial registration / 5GS services / Equivalent PLMN list handling	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.3	Initial registration / 5GS services / NSSAI handling	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.3a	Initial registration / 5GS services / NSSAI handling / NSSAI storage	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.4	Initial registration / 5GS services / MICO mode / TAI list handling	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.5	Initial registration / Abnormal / Failure after 5 attempts	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.6	Initial registration / Rejected / Illegal UE	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.7	Void			
9.1.5.1.8	Initial registration / Rejected / Serving network not authorized	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.9	Initial registration / Abnormal / Change of cell into a new tracking area	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.10	Initial registration / Rejected / PLMN not allowed	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.11	Initial registration / Rejected / Tracking area not allowed	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.12	Initial registration / Rejected / Roaming not allowed in this tracking area	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.13	Initial registration / Rejected / No suitable cells in tracking area	Rel-15	C21	UEs supporting 5G Core

Clause	TC Title	Release	Applicability	
			Condition	Comment
9.1.5.1.14	Initial registration / Rejected / Congestion / Abnormal cases / T3346	Rel-15	C21	UEs supporting 5G Core
9.1.5.1.15	Initial registration / Success / Extended and spare fields in UE network capability	Rel-15 only	C21	UEs supporting 5G Core
9.1.5.2	**Mobility and periodic registration update**			
9.1.5.2.1	Mobility registration update / TAI list handling	Rel-15	C21	UEs supporting 5G Core
9.1.5.2.2	Periodic registration update / Accepted	Rel-15	C21	UEs supporting 5G Core
9.1.5.2.4	Mobility registration update / The lower layer requests NAS signalling connection recovery	Rel-15	C21	UEs supporting 5G Core
9.1.5.2.5	Void			
9.1.5.2.7	Mobility and periodic registration update / Rejected / UE identity cannot be derived by the network	Rel-15	C21	UEs supporting 5G Core
9.1.5.2.8	Mobility and periodic registration update / Rejected / Implicitly de-registered	Rel-15	C21	UEs supporting 5G Core
9.1.5.2.9	Void			
9.1.6	**De-registration**			
9.1.6.1	**UE-initiated de-registration**			
9.1.6.1.1	UE-initiated de-registration / Switch off / Abnormal / De-registration and 5GMM common procedure collision	Rel-15	C21	UEs supporting 5G Core
9.1.6.1.2	UE-initiated de-registration / Normal de-registration / Abnormal / Transmission failure without TAI change from lower layers, de-registration and 5GMM common procedure collision, T3521 timeout	Rel-15	C21	UEs supporting 5G Core
9.1.6.1.3	UE-initiated de-registration / Abnormal / Change of cell into a new tracking area	Rel-15	C21	UEs supporting 5G Core
9.1.6.1.4	Void			
9.1.6.2	**Network-initiated de-registration**			
9.1.6.2.1	Network-initiated de-registration / De-registration for 3GPP access / Re-registration required	Rel-15	C21	UEs supporting 5G Core
9.1.6.2.2	Network-initiated de-registration / De-registration for 3GPP access / Re-registration not required	Rel-15	C21	UEs supporting 5G Core
9.1.7	**Service request**			
9.1.7.1	Service request / Idle mode uplink user data transport / Rejected / Restricted service area, abnormal / T3517, T3525	Rel-15	C21	UEs supporting 5G Core
9.1.7.2	Service request / Connected mode user data transport / Abnormal / T3517	Rel-15	C21	UEs supporting 5G Core
9.1.8	**SMS over NAS**			
9.1.8.1	SMS over NAS / MO and MT SMS over NAS / Idle mode	Rel-15	C33	UEs supporting 5G Core and SMS over NAS and UE configured to not use SMSoIP
9.1.8.2	SMS over NAS / Multiple MO and MT SMS over NAS / Connected mode	Rel-15	C33	UEs supporting 5G Core and SMS over NAS and UE configured to not use SMSoIP
9.1.9	**RACS**			
9.1.9.1	RACS / Network assigned UE radio capability ID	Rel-16	C108	UEs supporting 5G Core and RACS
9.1.9.2	RACS / UE configuration update / UE radio capability ID	Rel-16	C108	UEs supporting 5G Core and RACS
9.1.9.5	RACS / Handling of delete indication for NW assigned UE radio capability ID	Rel-16	C108	UEs supporting 5G Core and RACS

Clause	TC Title	Release	Applicability	
			Condition	Comment
9.2	**5GS Non-3GPP Access Mobility Management**			
9.2.1	Primary authentication and key agreement procedure			
9.2.1.1	EAP based primary authentication and key agreement	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.1.2	5G AKA based primary authentication and key agreement	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.2	**Security Mode Control**			
9.2.2.1	NAS security mode command	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.2.2	Protection of initial NAS signalling messages	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.3	**Void**			
9.2.4	**Generic UE configuration**			
9.2.4.1	Generic UE configuration update	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.5	**Registration**			
9.2.5.1	**Initial Registration**			
9.2.5.1.1	Initial registration / Success / 5G-GUTI reallocation, Last visited TAI	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.5.1.2	Initial registration / 5GS services / NSSAI handling	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.5.1.3	Void			
9.2.5.1.4	Initial registration / Rejected / Congestion / Abnormal cases / T3346	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.5.2	**Mobility Registration**			
9.2.5.2.1	Void			
9.2.5.2.2	Mobility registration update/Change of SMS over NAS capability	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.6	**De-registration**			
9.2.6.1	**UE-initiated de-registration**			
9.2.6.1.1	UE-initiated de-registration / switch off	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.6.2	**Network-initiated de-registration**			
9.2.6.2.1	Network-initiated de-registration / De-registration for Non-3GPP access / Re-registration required	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.6.2.2	Network-initiated de-registration / De-registration for Non 3GPP access / Re-registration not required	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.7	**Service request**			
9.2.7.1	Service request / IDLE mode uplink user data transport / Rejected / Restricted service area, Abnormal / T3517	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
9.2.7.2	Service request / CMM CONNECTED mode/uplink user data transport / Abnormal / T3517	Rel-15	C58	UEs supporting 5G core over non-3GPP Access Network, WLAN and (ICMP or ICMP IPv6)
9.2.8	**SMS over NAS**			
9.2.8.1	SMS over NAS / MO SMS over NAS - 5GMM-Idle mode	Rel-15	C30	UEs supporting 5G core over non-3GPP Access Network SMS over NAS and WLAN
9.3	**Inter-system mobility**			
9.3.1	**5GS-EPC Inter-system mobility**			
9.3.1.1	Inter-system mobility registration update / Single-registration mode with N26 / 5GMM-IDLE / 5GC to EPC	Rel-15	C26	UEs supporting 5GS and E-UTRA
9.3.1.2	Inter-system mobility registration update / Single-registration mode with N26 / 5GMM-IDLE / EPC to 5GC	Rel-15	C26	UEs supporting 5GS and E-UTRA
9.3.1.3	Inter-system mobility and periodic registration update / Rejected / Single-registration mode with N26 / Handling of EPC relevant parameters	Rel-15	C26	UEs supporting 5GS and E-UTRA
10	**Session management**			
10.1	**5GS session management**			
10.1.1	**PDU session authentication and authorization**			
10.1.1.1	PDU session authentication and authorization / During the UE-requested PDU session procedure	Rel-15	C39	UEs supporting 5G Core and additional UE-requested PDU establishment
10.1.1.2	PDU session authentication and authorization / After the UE-requested PDU session procedure	Rel-15	C48	UEs supporting 5G Core and Number of UE-requested PDU session establishments after REGISTRATION

Clause	TC Title	Release	Applicability	
			Condition	Comment
10.1.2	**Network-requested PDU session modification**			
10.1.2.1	Network-requested PDU session modification / Accepted	Rel-15	C21	UEs supporting 5G Core
10.1.2.2	Network-requested PDU session modification / Abnormal / PDU session in state PDU SESSION INACTIVE	Rel-15	C21	UEs supporting 5G Core
10.1.3	**Network-requested PDU session release**			
10.1.3.1	Void			
10.1.3.2	Network-requested PDU session release / Insufficient resources, insufficient resources for specific slice and DNN, abnormal / Invalid PDU session identity	Rel-15	C21	UEs supporting 5G Core
10.1.4	**UE-requested PDU session establishment**			
10.1.4.1	UE-requested PDU session establishment / Abnormal / T3580	Rel-15	C21	UEs supporting 5G Core
10.1.5	**UE-requested PDU session modification**			
10.1.5.1	UE-requested PDU session modification	Rel-15	C63	UEs supporting 5G Core and UE requested PDU session modification procedure
10.1.6	**UE-requested PDU session release**			
10.1.6.1	UE-requested PDU session release / Abnormal / Collision with network-requested PDU session modification procedure	Rel-15	C21	UEs supporting 5G Core
10.1.6.2	UE-requested PDU session release / Abnormal / Collision with network-requested PDU session release procedure	Rel-15	C21	UEs supporting 5G Core
10.2	**EN-DC session management**			
10.2.1	**Network initiated procedures**			
10.2.1.1	Default EPS bearer context activation	Rel-15	C01	UEs supporting EN-DC
10.2.1.2	Dedicated EPS bearer context activation	Rel-15	C01	UEs supporting EN-DC
10.2.2	**UE initiated procedures**			
10.2.2.1	EPS bearer resource allocation / modification	Rel-15	C16	UEs supporting EN-DC and UE requested bearer resource allocation and modification procedures
10.3	**5GS Non-3GPP Access Session Management**			
10.3.1	**PDU session authentication and authorization**			
10.3.1.1	PDU session authentication and authorization / during the UE-requested PDU session procedure	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
10.3.2	**Network-requested PDU session modification**			
10.3.2.1	Network-requested PDU session modification /Accepted/Rejected	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
10.3.3	**Network-requested PDU session Release**			
10.3.3.1	Network-requested PDU session release / accepted/ with and without reactivation	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
10.3.4	**UE-requested PDU session establishment**			
10.3.4.1	UE-requested PDU session establishment / Abnormal / T3580	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
10.3.5	**UE-requested PDU session modification**			
10.3.5.1	UE-requested PDU session modification/Success	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN
10.3.6	**UE-requested PDU session release**			
10.3.6.1	UE-requested PDU session release / Abnormal / Collision with network-requested PDU session modification procedure	Rel-15	C29	UEs supporting 5G core over non-3GPP Access Network and WLAN

Table 4.1-4b: Additional Information of Applicability of Protocol conformance Mobility and Session Management test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
9				
9.1				
9.1.6				
9.1.6.1				
9.1.6.1.1	[10] pc_USIM_Removal			
9.2				
9.2.6				
9.2.6.1				
9.2.6.1.1	[10] pc_USIM_Removal			
9.2.7				
9.2.7.2	[10] pc_IPv4 [10] pc_IPv6			
9.3				
9.3.1				
9.3.1.1				Rel-15 E-UTRA
9.3.1.2				Rel-15 E-UTRA
9.3.1.3				Rel-15 E-UTRA
10				
10.1				

Table 4.1-5a: Applicability of Protocol conformance Multi-layer test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
11	**Multi-layer and Services**			
11.1	**5GS / EPS Fallback**			
11.1.1	MO MMTEL voice call setup from NR RRC_IDLE / EPS Fallback with redirection / Single registration mode with N26 interface / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
11.1.2	MO MMTEL voice call setup from NR RRC_IDLE / EPS Fallback with redirection / Single registration mode without N26 interface / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
11.1.3	MO MMTEL voice call setup from NR RRC_CONNECTED / EPS Fallback with handover / Single registration mode with N26 interface / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
11.1.4	MO MMTEL voice call setup from NR RRC_CONNECTED / EPS Fallback with redirection / Single registration mode with N26 interface / E-UTRAN cell selection using cell status barred / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
11.1.5	MO MMTEL voice call setup from NR RRC_CONNECTED / EPS Fallback with redirection / Single registration mode without N26 interface / E-UTRAN cell selection using cell status reservation / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
11.1.6	MT MMTEL voice call setup from NR RRC_IDLE / EPS Fallback with redirection / Single registration mode without N26 interface / Success	Rel-15	C54	UEs supporting 5G Core and E-UTRA and EPS IMS (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") Voice and EPS fallback
11.1.7	Emergency call setup from NR RRC_IDLE / Emergency Services Fallback to EPS with redirection / Single registration mode with N26 interface / Success	Rel-15	C47	UEs supporting 5G Core and E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and Emergency Services Fallback in NR connected to 5GCN
11.1.8	MO MMTEL voice call setup from NR RRC_CONNECTED / EPS Fallback with handover / Single registration mode with N26 interface / voiceFallbackIndication	Rel-16	C95	UEs supporting 5G Core and E-UTRA and EPS IMS (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") Voice and EPS fallback and voiceFallbackIndication
11.1.9	MO MMTEL voice call setup from NR RRC_IDLE / EPS Fallback with redirection / Single registration mode with N26 interface / voiceFallbackIndication	Rel-16	C95	UEs supporting 5G Core and E-UTRA and EPS IMS (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") Voice and EPS fallback and voiceFallbackIndication
11.2	**5G-SRVCC**			
11.2.1	5G-SRVCC from NG-RAN to 3GPP UTRAN	Rel-16	C127	UEs supporting 5G Core and UTRA and NR to UTRA-FDD CELL_DCH CS handover

11.3	**Unified Access Control (UAC)**			
11.3.1	UAC / Access Identity 0 / 0% access probability / MTSI MO speech call/SMSoIP/Uplink User data transfer	Rel-15	C78	UEs supporting 5G Core and Initiating session and MTSI speech and SMS over IP
11.3.2	UAC / Access Identity 0 / 0% access probability / Paging for MT Access/Emergency Call	Rel-15	C21	UEs supporting 5G Core
11.3.3	UAC / Access Identity 0 / AC8 / RRC_INACTIVE / RNAUpdate/RRC Resume	Rel-15	C109	UEs supporting 5G Core and RRC_INACTIVE
11.3.4	UAC / Access Identity 0 / Registration procedure for mobility and periodic registration update / BarringPerPLMN/Implicit AC Barring List	Rel-15	C21	UEs supporting 5G Core
11.3.5	UAC / Access Identity 1 / New cell not in the country of its HPLMN/EHPLMN 0% access probability/MPS indicator / HPLMN/0%/100% accessibility AC5/MMTEL-Video call	Rel-15	C79	UEs supporting 5G Core and Initiating session and MTSI video
11.3.6	UAC / Access Identity 2 / New cell not in the country of its HPLMN/EHPLMN 0% access probability/MCS indicator / HPLMN/0%/100% accessibility AC7/RRC_INACTIVE	Rel-15	C21	UEs supporting 5G Core
11.3.7	UAC / Access Identity 11..15 / High Priority Access / HPLMN/0% accessibility AC2/Emergency call	Rel-15	C21	UEs supporting 5G Core
11.3.8	UAC / Access Identity 0 / NR RRC_IDLE / Cell re-selection while T390 is running	Rel-15	C21	UEs supporting 5G Core
11.3.9	UAC / Access Identity 0 / ODAC / PLMN / RPLMN / not EPLMN	Rel-15	C21	UEs supporting 5G Core
11.4	**Emergency Services**			
11.4.1	5GMM-REGISTERED.NORMAL-SERVICE / 5GMM-IDLE / Emergency call / Utilising emergency number stored on the USIM / New emergency PDU session / Network failing the authentication check (5G AKA)	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.2	5GMM-DEREGISTERED.LIMITED-SERVICE / Emergency call / Utilisation of emergency numbers stored on the ME / Initial registration for emergency services / Handling of forbidden PLMNs	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.3	5GMM-DEREGISTERED.NO-SUPI / Emergency call / Utilisation of emergency numbers stored on the ME / Initial registration for emergency services	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.4	5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE T3346 running / Emergency call establishment / 5GMM-REGISTERED.NORMAL-SERVICE / Emergency call establishment before T3396 expiry	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.5	5GMM-REGISTERED.LIMITED-SERVICE / 5GMM-IDLE / Emergency call establishment and release / Handling of 5GS forbidden tracking areas for roaming	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.6	5GMM-REGISTERED.NON-ALLOWED-SERVICE / Emergency call establishment and release / Handling of non-allowed tracking areas	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.7	Handling of Local and Extended emergency numbers / Mobility	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.8	Handling of Local and extended emergency numbers / Switch-off and maximum local numbers storage	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.9	5GMM-DEREGISTERED.LIMITED-SERVICE No suitable cells in tracking area / Emergency call establishment and release	Rel-15	C92	UEs supporting 5G Core and emergency services in NR connected to 5GCN
11.4.10	5GMM-REGISTERED.NORMAL-SERVICE / N26 interface not supported / N1 mode to S1 mode transfer of an existing emergency PDU session	Rel-15	C85	UEs supporting 5G core and Emergency PDU session transfer from N1 mode to S1 mode when network does not support N26 interface, and, E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and emergency services in NR connected to 5GCN

11.4.11	5GMM-REGISTERED.NORMAL-SERVICE / N26 interface not supported / S1 mode to N1 mode transfer of an existing emergency PDN connection	Rel-15	C85A	UEs supporting 5G core and Emergency PDN connection transfer from S1 mode to N1 mode when network does not support N26 interface, and, E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and emergency services in NR connected to 5GCN

Table 4.1-5b: Additional Information of Applicability of Protocol conformance Multi-layer test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
11				
11.1				
11.1.1				Rel-15 E-UTRA
11.1.2				Rel-15 E-UTRA
11.1.3				Rel-15 E-UTRA
11.1.4				Rel-15 E-UTRA
11.1.5				Rel-15 E-UTRA
11.1.6				Rel-15 E-UTRA
11.1.7				Rel-15 E-UTRA
11.1.8				Rel-16 E-UTRA
11.1.9				Rel-16 E-UTRA
11.2				
11.2.1				Rel-16 UTRA
11.3				
11.3.1	pc_inactiveState			
11.3.6	pc_inactiveState			
11.4				
11.4.10				Rel-15 E-UTRA
11.4.11				Rel-15 E-UTRA

Table 4.1-6a: Applicability of Protocol conformance NR sidelink test cases, ref. TS 38.523-1 [2]

Clause	TC Title	Release	Applicability	
			Condition	Comment
12	**NR sidelink**			
12.1	**PC5-only operation**			
12.1.7	**PC5-only operation / Sidelink UE capability transfer via PC5 RRC**			
12.1.7.1	PC5-only operation / Sidelink UE capability transfer via PC5 RRC / One-way and two-way transfer	Rel-16	C128	UE supporting 5G core and NR sidelink transmission mode 2
12.2	**Inter-carrier concurrent operation**			
12.2.1	**Inter-carrier concurrent operation / Sidelink communication**			
12.2.1.3	Inter-carrier concurrent operation / Sidelink communication / RRC_CONNECTED / Transmission / Network scheduling	Rel-16	C106	UE supporting 5G core and NR sidelink mode 1 transmission
12.2.2	**Inter-carrier concurrent operation / Sidelink synchronization related procedure**			
12.2.3	**Inter-carrier concurrent operation / Measurement configuration and reporting via Uu RRC**			
12.2.3.1	Inter-carrier concurrent operation / Measurement configuration and reporting via Uu RRC / CBR measurement reporting / Event C1 and C2	Rel-16	C106	UE supporting 5G core and NR sidelink mode 1 transmission

Table 4.1-6b: Additional Information of Applicability of Protocol conformance NR sidelink test cases, ref. TS 38.523-1 [2]

Clause	Specific ICS	Specific IXIT	Number of TC Executions	Release other RAT
TBD				

4.2 Protocol conformance test cases Applicability Condition

Table 4.2-1: Applicability of Protocol conformance test cases Conditions

Condition	Test case Selection Expression	Comment
C01	IF A.4.1-3/2 THEN R ELSE N/A	UEs supporting EN-DC
C02	IF (A.4.3.4-1/2 OR A.4.3.4-1/3) THEN R ELSE N/A	UEs supporting 5GS and RLC UM Mode
C03	IF A.4.3.5-1/1 THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle
C04	IF A.4.3.5-1/2 THEN R ELSE N/A	UEs supporting 5GS and short DRX cycle
C05	IF A.4.3.4-1/3 THEN R ELSE N/A	UEs supporting 5GS and RLC UM with 6-bit length of RLC sequence number
C06	IF A.4.3.4-1/2 THEN R ELSE N/A	UEs supporting 5GS and RLC UM with 12-bit length of RLC sequence number
C07	IF A.4.3.4-1/1 THEN R ELSE N/A	UEs supporting 5GS and RLC AM with 12-bit length of RLC sequence number
C08	IF A.4.3.3-1/1 THEN R ELSE N/A	UEs supporting 5GS and 12-bit length of PDCP sequence number
C09	IF [10] A.4.4-1/99 THEN R ELSE N/A	UEs supporting 5GS and ZUC Algorithm
C10	IF A.4.1-3/2 AND A.4.3.7-1/2 THEN R ELSE N/A	UEs supporting EN-DC and UL transmission via both MCG path and SCG path for the split DRB
C11	IF (A.4.3.2-1/2 OR A.4.3.2-1/3) THEN R ELSE N/A	UEs supporting 5GS and 256QAM for PDSCH for FR1/FR2
C12	IF (A.4.3.2-1/4) THEN R ELSE N/A	UEs supporting 5GS and 256QAM for PUSCH
C13	IF A.4.1-3/2 AND A.4.3.6-1/1 THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting
C14	IF A.4.1-3/2 AND A.4.3.6-1/1 AND A.4.3.6-1/3 THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting)
C15	IF A.4.1-3/2 AND A.4.3.6-1/1 AND A.4.3.6-1/3 AND (A.4.3.6-1/4 OR A.4.3.6-1/40) THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements and at least periodical reporting) and CSI-RSRP and CSI-RSRQ measurement
C16	IF A.4.1-3/2 AND [10] A.4.4-1/18 AND [10] A.4.4-1/19 THEN R ELSE N/A	UEs supporting EN-DC and UE requested bearer resource allocation and modification procedures
C17	IF A.4.3.2-1/1 THEN R ELSE N/A	UEs supporting 5GS and PDSCH reception based on semi-persistent scheduling
C18	IF A.4.3.2-1/10 THEN R ELSE N/A	UEs supporting 5GS and Type 1 PUSCH transmissions with configured grant
C19	IF A.4.3.2-1/11 THEN R ELSE N/A	UEs supporting 5GS and Type 2 PUSCH transmissions with configured grant
C20	IF A.4.3.2-1/12 THEN R ELSE N/A	UEs supporting 5GS and PDSCH aggregation
C21	IF A.4.1-5/1 THEN R ELSE N/A	UEs supporting 5G Core
C21A	IF A.4.1-5/1 AND A.4.3.7-1/4 THEN R ELSE N/A	UEs supporting 5G Core and reflective QoS
C22	IF A.4.1-3/2 AND A.4.3.7-1/3 THEN R ELSE N/A	UEs supporting EN-DC and SRB3
C23	IF A.4.1-3/2 AND A.4.3.7-1/3 AND A.4.3.7-1/1 THEN R ELSE N/A	UEs supporting EN-DC and SRB3 and (UL transmission via either MCG path or SCG path for the split SRB)
C24	IF A.4.1-3/2 AND A.4.3.6-1/3 AND A.4.3.6-1/2 AND A.4.1-4/3 THEN R ELSE N/A	UEs supporting EN-DC and (NR intra-frequency and inter-frequency measurements and at least periodical reporting) and (two independent measurement gap configurations for FR1 and FR2) and Inter-Band EN-DC within FR1
C25	IF A.4.1-3/2 AND A.4.3.6-1/3 AND A.4.3.6-1/2 AND A.4.1-4/4 THEN R ELSE N/A	UEs supporting EN-DC and (NR intra-frequency and inter-frequency measurements and at least periodical reporting) and (two independent measurement gap configurations for FR1 and FR2) and Inter-Band EN-DC including FR2
C26	IF ([10] A.4.1-1/1 OR [10] A.4.1-1/2) THEN R ELSE N/A	UEs supporting 5GS and E-UTRA
C27	IF A.4.1-5/1 AND A.4.3.6-1/1 THEN R ELSE N/A	UEs supporting 5G Core and NR measurements and Event A triggered reporting
C28	IF A.4.3.2-1/13 THEN R ELSE N/A	UEs supporting 5GS and supplemental uplink with dynamic switch
C29	IF A.4.1-5/2 AND [10] A.4.1-1/5.	UEs supporting 5G core over non-3GPP Access Network and WLAN
C30	IF A.4.1-5/2 AND A.4.3.7-1/1 AND [10] A.4.1-1/5.	UEs supporting 5G core over non-3GPP Access Network, SMS over NAS and WLAN
C31	IF A.4.1-5/1 AND A.4.3.6-1/5 THEN R ELSE N/A	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting
C32	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA
C33	IF A.4.1-5/1 AND A.4.3.7-1/6 AND NOT [10] A.4.4-2/32 THEN R ELSE N/A	UEs supporting 5G Core and SMS over NAS and UE configured to not use SMSoIP
C34	IF A.4.1-5/1 AND [10] A.4.4-1/84 THEN R ELSE N/A	UEs supporting 5G Core and MinimumPeriodicSearchTimer
C35	IF A.4.1-5/1 AND (A.4.3.7-1/8 OR A.4.3.7-1/7) THEN R ELSE N/A	UEs supporting 5G Core and (ETWS reception or CMAS reception)
C36	IF A.4.1-5/1 AND [10] A.4.4-1/69 THEN R ELSE N/A	UEs supporting 5G Core and user initiated PLMN reselection in automatic mode on NR
C37	IF A.4.1-5/1 AND (A.4.1-2/1 OR A.4.1-2/2) THEN R ELSE N/A	UEs supporting 5G Core and more than 1 FDD or TDD NR band
C38	IF A.4.1-5/1 AND A.4.1-1/1 AND A.4.1-1/2 THEN R ELSE N/A	UEs supporting 5G Core and NR FDD and NR TDD
C39	IF A.4.1-5/1 AND A.4.3.7-1/1 AND A.4.3.7-1/10 THEN R ELSE N/A	UEs supporting 5G Core additional UE-requested PDU establishment and the UE includes the SM PDU DN request container IE in the PDU SESSION ESTABLISHMENT REQUEST message.

Condition	Test case Selection Expression	Comment
C40	IF A.4.1-5/1 AND A.4.3.6-1/6 THEN R ELSE N/A	UEs supporting 5G Core and SS-SINR measurements
C41	IF A.4.1-5/1 AND (A.4.1-4A/1 OR A.4.1-4A/3) THEN R ELSE N/A	UEs supporting 5G Core and intra-band contiguous CA
C42	IF A.4.1-5/1 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) THEN R ELSE N/A	UEs supporting 5G Core and inter-band CA
C43	IF A.4.1-5/1 AND (A.4.1-4A/2 OR A.4.1-4A/4) THEN R ELSE N/A	UEs supporting 5G Core and intra-band non-contiguous CA
C44	IF (A.4.1-4A/1 OR A.4.1.4A/3) THEN R ELSE N/A	UEs supporting 5GS and intra-band contiguous CA
C45	IF (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) THEN R ELSE N/A	UEs supporting 5GS and inter-band CA
C46	IF (A.4.1-4A/2 OR A.4.1.4A/4) THEN R ELSE N/A	UEs supporting 5GS and intra-band non-contiguous CA
C47	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND [10] A.4.2.1.1-1/4 AND A.4.3.7-1/11 THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and Emergency Services Fallback in NR connected to 5GCN
C48	IF A.4.1-5/1 AND A.4.4.2-1/3 THEN R ELSE N/A	UEs supporting 5G Core and Number of UE-requested PDU session establishments after REGISTRATION
C49	IF A.4.1-5/1 AND A.4.3.6-1/2 THEN R ELSE N/A	UE supporting 5G Core and two independent measurement gap configurations for FR1 and FR2
C50	IF A.4.1-5/1 AND A.4.3.6-1/5 AND A.4.3.6-1/6 THEN R ELSE N/A	UEs supporting 5G Core and Inter-RAT E-UTRA measurements and Event B triggered reporting and SS-SINR measurements
C51	IF A.4.3.2-1/21 THEN R ELSE N/A	UEs supporting 5GS and PUSCH aggregation
C52	IF A.4.1-5/1 AND A.4.3.6-1/1 AND A.4.3.6-1/3 AND (A.4.3.6-1/4 OR A.4.3.6-1/40) THEN R ELSE N/A	UEs supporting 5G Core and NR measurements and Event A triggered reporting and (NR Intra-frequency and Inter frequency measurements and at least periodical reporting) and CSI-RSRP and CSI-RSRQ measurement
C53	IF A.4.3.5-1/4 THEN R ELSE N/A	UEs supporting 5GS and Logical Channel SR-Delay Timer
C54	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND [10] A.4.4-1/33 AND A.4.3.7-1/12 THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback
C55	IF A.4.1-3/2 AND A.4.3.6-1/1 AND (A.4.1-4A/1 OR A.4.1-4A/3) THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and intra-band contiguous CA
C56	IF A.4.1-3/2 AND A.4.3.6-1/1 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and inter-band CA
C57	IF A.4.1-3/2 AND A.4.3.6-1/1 AND (A.4.1-4A/2 OR A.4.1-4A/4) THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and intra-band non-contiguous CA
C58	IF A.4.1-5/2 AND [10] A.4.1-1/5.AND A.4.4-1/1	UEs supporting 5G core over non-3GPP Access Network, WLAN and (ICMP or ICMP IPv6)
C59	IF A.4.1-5/1 AND A.4.3.6-1/8 THEN R ELSE N/A	UEs supporting 5G Core and Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when EN-DC is not configured.
C60	IF A.4.1-5/1 AND A.4.3.6-1/7 THEN R ELSE N/A	UEs supporting 5G Core and Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the EN-DC is not configured.
C61	IF A.4.1-3/2 AND A.4.3.3-1/5 THEN R ELSE N/A	UEs supporting EN-DC and PDCP duplication over split SRB1/2
C62	IF A.4.1-3/2 AND A.4.3.3-1/4 THEN R ELSE N/A	UEs supporting EN-DC and PDCP duplication over split DRB
C63	IF A.4.1-5/1 AND A.4.3.7-1/13 THEN R ELSE N/A	UEs supporting 5G Core and UE requested PDU session modification procedure
C64	IF A.4.3.2-1/23 THEN R ELSE N/A	UEs supporting 5GS and The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2. If absent, the UE doesn't support MIMO on this carrier
C65	IF A.4.3.2-1/23 AND (A.4.3.2-1/4) THEN R ELSE N/A	UEs supporting 5GS and The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2. If absent, the UE doesn't support MIMO on this carrier
C66	IF (A.4.3.2-1/24 OR A.4.3.2-1/24A) AND (A.4.3.2-1/24 OR A.4.3.2-1/24A) THEN R ELSE N/A	UEs supporting 5GS and (DCI and timer based active BWP switching delay type1 or type2) and (Support of BWP adaptation up to 2 or up to 4)
C67	IF A.4.1-3/2 AND (A.4.1-4A/1 OR A.4.1-4A/3) THEN R ELSE N/A	UEs supporting EN-DC and Intra-Band Contiguous CA
C68	IF A.4.1-3/2 AND (A.4.1-4A/2 OR A.4.1-4A/4) THEN R ELSE N/A	UEs supporting EN-DC and Intra-Band Non-Contiguous CA

Condition	Test case Selection Expression	Comment
C69	IF A.4.1-3/2 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) THEN R ELSE N/A	UEs supporting EN-DC and Inter-Band CA
C70	IF A.4.3.5-1/1 AND A.4.3.5-1/2 THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle and Short DRX Cycle
C71	IF A.4.1-3/2 AND A.4.3.7-1/3 AND A.4.3.6-1/3 THEN R ELSE N/A	UEs supporting EN-DC and SRB3 and NR intra-frequency and inter-frequency measurements and at least periodical reporting
C72	IF A.4.1-5/1 AND (A.4.1-4A/1 OR A.4.1-4A/3) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting 5G Core and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C73	IF A.4.1-5/1 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting 5G Core and inter-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C74	IF A.4.1-5/1 AND (A.4.1-4A/2 OR A.4.1-4A/4) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting 5G Core and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C75	IF A.4.1-3/2 AND A.4.3.7-1/3 AND (A.4.1-4A/1 OR A.4.1-4A/3) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting EN-DC and SRB3 and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C76	IF A.4.1-3/2 AND A.4.3.7-1/3 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting EN-DC and SRB3 and inter-band CA and CA-based PDCP duplication over MCG or SCG DRB
C77	IF A.4.1-3/2 AND A.4.3.7-1/3 AND (A.4.1-4A/2 OR A.4.1-4A/4) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting EN-DC and SRB3 and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C78	IF A.4.1-5/1 AND [9] A.3A/50 AND [9] A.4/2B AND [9] A.15/1 AND [9] A.3A/61 THEN R ELSE N/A	UEs supporting 5G Core and Initiating session and MTSI speech and SMS over IP
C79	IF A.4.1-5/1 AND [9] A.3A/50 AND [9] A.4/2B AND [9] A.15/3 THEN R ELSE N/A	UEs supporting 5G Core and Initiating session and MTSI video
C80	IF A.4.1-4/6 THEN R ELSE N/A	UEs supporting NR-DC
C81	IF A.4.1-4A/1 OR A.4.1.4A/3 AND A.4.3.2A.1-2/1 THEN R ELSE N/A	UEs supporting 5GS and intra-band contiguous CA and UL NR CA with 2 carriers
C82	IF A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7 AND A.4.3.2A.1-2/1 THEN R ELSE N/A	UEs supporting 5GS and inter-band CA and UL NR CA with 2 carriers
C83	IF A.4.1-4A/2 OR A.4.1.4A/4 AND A.4.3.2A.1-2/1 THEN R ELSE N/A	UEs supporting 5GS and intra-band non-contiguous CA and UL NR CA with 2 carriers
C84	IF A.4.1-5/1 AND [10] A.4.4-1/99 THEN R ELSE N/A	UEs supporting 5G Core and ZUC algorithm
C85	IF (A.4.1-5/1 AND A.4.4-2/8) AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND [10] A.4.2.1.1-1/4 THEN R ELSE N/A	UEs supporting 5G core and Emergency PDU session transfer from N1 mode to S1 mode when network does not support N26 interface, and, E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS")
C85A	IF (A.4.1-5/1 AND A.4.4-2/9) AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND [10] A.4.2.1.1-1/4 THEN R ELSE N/A	UEs supporting 5G core and Emergency PDN connection transfer from S1 mode to N1 mode when network does not support N26 interface, and, E-UTRA and EPS IMS emergency call (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS")
C86	IF A.4.1-4/6 AND A.4.3.7-1/3 THEN R ELSE N/A	UEs supporting NR-DC and SRB3
C87	IF A.4.1-4/6 AND A.4.3.7-1/3 AND A.4.3.6-1/3 THEN R ELSE N/A	UEs supporting NR-DC and SRB3 and NR intra-frequency and inter-frequency measurements and at least periodical reporting
C88	IF A.4.1-4/6 AND A.4.3.7-1/3 AND (A.4.1-4A/1 OR A.4.1-4A/3) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting NR-DC and SRB3 and intra-band contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C89	IF A.4.1-4/6 AND A.4.3.7-1/3 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting NR-DC and SRB3 and inter-band CA and CA-based PDCP duplication over MCG or SCG DRB
C90	IF A.4.1-4/6 AND A.4.3.7-1/3 AND (A.4.1-4A/2 OR A.4.1-4A/4) AND A.4.3.3-1/3 THEN R ELSE N/A	UEs supporting NR-DC and SRB3 and intra-band non-contiguous CA and CA-based PDCP duplication over MCG or SCG DRB
C91	IF A.4.1-5/1 AND [10] A.4.4-1/98 THEN R ELSE N/A	UEs supporting 5G Core and ManualModeNetworkSelectionException
C92	IF A.4.1-5/1 AND A.4.3.7-1/14 THEN R ELSE N/A	UEs supporting 5G Core and emergency services in NR connected to 5GCN
C93	IF A.4.1-3/2 AND A.4.3.6-1/1 AND A.4.3.6-1/3 AND (A.4.1-2/1 OR A.4.1-2/2 OR (A.4.1-1/1 AND A.4.1-1/2)) THEN R ELSE N/A	UEs supporting EN-DC and NR measurements and Event A triggered reporting and (NR Intra-frequency and NR-Inter frequency measurements and at least periodical reporting) and multiple NR bands.
C94	IF A.4.1-5/1 AND (A.4.1-2/1 OR A.4.1-2/2 OR (A.4.1-1/1 AND A.4.1-1/2)) THEN R ELSE N/A	UEs supporting 5G Core and multiple NR bands
C95	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND [10] A.4.4-1/33 AND A.4.3.7-1/12 AND A.4.3.7-1/15 THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA and EPS IMS Voice (VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS") and EPS fallback and voiceFallbackIndication
C96	IF A.4.1-5/1 AND A.4.1-3/2 AND A.4.3.8-1/10 THEN R ELSE N/A	UEs supporting 5G Core and EN-DC and inter-RAT Handover from NR to EN-DC
C97	IF A.4.1-4/6 AND A.4.3.7-1/2 THEN R ELSE N/A	UEs supporting NR-DC and UL transmission via both MCG path and SCG path for the split DRB
C98	IF A.4.1-4/6 AND A.4.3.3-1/4 THEN R ELSE N/A	UEs supporting NR-DC and PDCP duplication over split DRB
C99	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND (A.4.3.8-1/6 OR A.4.3.8-1/7 OR A.4.3.8-1/8)THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA and (inter-RAT Handover to NR FR1 TDD from EUTRA connected to EPC or inter-RAT Handover to NR FR1 FDD from EUTRA connected to EPC or inter-RAT Handover to NR FR2 TDD from EUTRA connected to EPC)

Condition	Test case Selection Expression	Comment
C100	IF A.4.1-5/1 AND [9] A.15/1 THEN R ELSE N/A	UEs supporting 5G Core and MTSI speech
C101	IF A.4.1-5/1 AND A.4.3.8-1/6 THEN R ELSE N/A	UEs supporting 5G Core and intra-frequency DAPS handover
C102	IF A.4.3.2-1/30 THEN R ELSE N/A	UEs supporting 5GS and cross slot scheduling
C103	IF A.4.3.5-1/1 AND A.4.3.5-1/5 THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle and DRX adaptation
C104	IF (A.4.1-4A/1 OR A.4.1-4A/3) AND A.4.3.2A.1-1/2 AND A.4.3.3-1/5 THEN R ELSE N/A	UEs supporting 5GC and Intra-band contiguous CA and DL NR CA with 3 carriers and PDCP duplication with more than two RLC entities
C105	IF (A.4.3.4-1/2 OR A.4.3.4-1/3) AND A.4.3.3-1/7 THEN R ELSE N/A	UEs supporting 5GS and RLC UM mode and PDCP ethernet header compression
C106	IF A.4.1-5/1 AND A.4.3.10-1/1 THEN R ELSE N/A	UE supporting 5G core and NR sidelink mode 1 transmission
C107	IF A.4.3.2-1/32 THEN R ELSE N/A	UE's supporting multi-DCI based multi-TRP
C108	IF A.4.1-5/1 AND A.4.3.7-1/17 THEN R ELSE N/A	UEs supporting 5G Core and RACS
C109	IF A.4.1-5/1 AND A.4.3.7-1/19 THEN R ELSE N/A	UEs supporting 5G Core and RRC_INACTIVE
C110	IF A.4.1-5/1 AND ([10] A.4.1-1/1 OR [10] A.4.1-1/2) AND A.4.3.7-1/19 THEN R ELSE N/A	UEs supporting 5G Core and E-UTRA and RRC_INACTIVE
C111	IF A.4.1-5/1 AND (A.4.3.7-1/8 OR A.4.3.7-1/7) AND A.4.3.7-1/19 THEN R ELSE N/A	UEs supporting 5G Core and (ETWS reception or CMAS reception) and RRC_INACTIVE
C112	Void	
C113	IF A.4.1-5/1 AND A.4.3.2/1 THEN R ELSE N/A	UEs 5GS and PDSCH reception based on multiple semi-persistent scheduling
C114	IF A.4.1-5/1 AND A.4.3.5-1/6 THEN R ELSE N/A	UEs supporting 5GS and LCH-based UL grant prioritization
C115	IF A.4.1-5/1 AND A.4.3.8-1/11 THEN R ELSE N/A	UEs supporting 5G Core and conditional handover
C116	IF A.4.1-5/1 AND A.4.3.8-1/11 AND A.4.3.8-1/13 THEN R ELSE N/A	UEs supporting 5G Core and conditional handover and supporting 2 trigger events for same execution condition
C117	IF A.4.1-5/1 AND A.4.3.8-1/11 AND A.4.3.8-1/12 THEN R ELSE N/A	UEs supporting 5G Core and conditional handover and conditional handover during re-establishment procedure when the selected cell is configured as candidate cell for condition handover
C118	IF A.4.3.5-1/1 AND A.4.3.5-1/5 AND A.4.3.2-1/35 AND (A.4.1-4A/1 OR A.4.1-4A/3) THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and intra-band contiguous CA
C119	IF A.4.3.5-1/1 AND A.4.3.5-1/5 AND A.4.3.2-1/35 AND (A.4.1-4A/2 OR A.4.1-4A/4) THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and intra-band non-contiguous CA
C120	IF A.4.3.5-1/1 AND A.4.3.5-1/5 AND A.4.3.2-1/35 AND (A.4.1-4A/5 OR A.4.1-4A/6 OR A.4.1-4A/7) THEN R ELSE N/A	UEs supporting 5GS and Long DRX Cycle and DRX adaptation and SCell Dormancy indication outside active time and inter-band CA
C121	IF A.4.4-1/4 THEN R ELSE N/A	UEs supporting 5G Core and standalone GNSS receiver to provide detailed location information
C122	IF A.4.4-1/5 THEN R ELSE N/A	UEs supporting 5G Core and UL PDCP Packet Delay per DRB
C123	IF A.4.4-1/6 THEN R ELSE N/A	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE.
C124	IF A.4.4-1/4 AND A4.4-1/6 THEN R ELSE N/A	UEs supporting 5G core and logged measurements in RRC_IDLE and RRC_INACTIVE and equipped with a GNSS receiver to provide detailed location information
C125	IF A.4.4-1/6 AND A.4.3.7-1/19 THEN R ELSE N/A	UEs supporting 5G core and RRC_INACTIVE and logged measurements in RRC_IDLE and RRC_INACTIVE.
C126	IF A.4.1-5/1 AND AND A.4.4-1/4 THEN R ELSE N/A	UEs supporting 5G Core and equipped with a GNSS or A-GNSS receiver to provide detailed location information.
C127	IF A.4.1-5/1 AND [10] A.4.1-1/6 AND A.4.3.8-1/11 THEN R ELSE N/A	UEs supporting 5G Core and UTRA and NR to UTRA-FDD CELL_DCH CS handover
C128	IF A.4.1-5/1 AND A.4.3.10-1/2 THEN R ELSE N/A	UE supporting 5G core and NR sidelink transmission mode 2

Condition	Test case Selection Expression	Comment
C129	IF A.4.1-5/1 AND A.4.3.7-1/18 AND A.4.3.7-1/25 THEN R ELSE N/A	UEs supporting 5G Core and RRC message Segmentation in the UL and Support of test function for using a preconfigured UE capability container over NR
C130	IF A.4.1-5/1 AND A.4.3.8-1/15 THEN R ELSE N/A	UEs supporting 5G Core and inter-frequency DAPS handover
C131	IF A.4.1-5/1 AND A.4.3.7-1/24 THEN R ELSE N/A	UEs supporting 5G Core and SNPN
C132	IF A.4.1-5/1 AND A.4.3.7-1/23 THEN R ELSE N/A	UEs supporting 5G Core and CAG
C133	IF A.4.1-5/1 AND A.4.3.7-1/21 THEN R ELSE N/A	UEs supporting 5G Core and RRC connection release with Deprioritisation
C134	IF A.4.3.2-1/45 THEN R ELSE N/A	UEs supporting PUSCH repetition type B
C135	IF A.4.3.2-1/46 THEN R ELSE N/A	UEs supporting 2-Step RACH
C136	IF A.4.1-5/1 AND A.4.4-1/3 THEN R ELSE N/A	UEs supporting 5G Core and delivery of rachReport upon request from the network.
C137	IF A.4.1-5/1 AND A.4.4-1/12 THEN R ELSE N/A	UEs supporting 5G coer and Bluetooth measurements in RRC_IDLE and RRC_INACTIVE state
C138	IF A.4.1-5/1 AND A.4.4-1/13 THEN R ELSE N/A	UEs supporting 5G coer and WLAN measurements in RRC_IDLE and RRC_INACTIVE state
C139	IF A.4.1-5/1 AND (A.4.4-1/7 OR A.4.4-1/8 OR A.4.4-1/9) THEN R ELSE N/A	UEs supporting 5G Core and collection of sensor information such as Barometeric pressure, UE speed, and UE orientation information as defined in TS 37.355.
C140	IF A.4.1-5/1 AND A.4.4-1/10 THEN R ELSE N/A	UEs supporting 5G core and Bluetooth Measurement Collection in Immediate MDT
C141	IF A.4.1-5/1 AND A.4.4-1/11 THEN R ELSE N/A	UEs supporting 5G core and WLAN Measurement Collection in Immediate MDT

Annex A (informative): Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2017-08	RAN5#76	R5-174402	-	-	-	Introduction of TS 38.523-2	0.0.1
2018-03	RAN5##2-5G-NR Adhoc	R5-181762	-	-	-	Draft TS 38.523-2 v0.1.0	0.1.0
2018-04	RAN5##2-5G-NR Adhoc	R5-181837	-	-	-	Draft TS 38.523-2 v0.2.0	0.2.0
2018-04	RAN5##2-5G-NR Adhoc	R5-181838	-	-	-	Addition of applicability for new 5GS test cases	0.2.0
2018-04	RAN5##2-5G-NR Adhoc	R5-181210	-	-	-	Add applicability for new NR testcases	0.2.0
2018-04	RAN5##2-5G-NR Adhoc	R5-180922	-	-	-	Addition of applicability of new NR test cases 7.1.3.2 and 7.3.4.2	0.2.0
2018-04	RAN5##2-5G-NR Adhoc	R5-180974	-	-	-	Addition of New Layer 2 NR Test Case Applicability	0.2.0
2018-05	RAN5#79	R5-182897	-	-	-	Update to NR test cases applicability	1.0.0
2018-05	RAN5#79	R5-183158	-	-	-	Update to NR Test case applicability	1.0.0
2018-05	RAN5#79	R5-183159	-	-	-	Addition of Layer 2 test case applicabilities and selection expressions	1.0.0
2018-05	RAN5#79	R5-183235	-	-	-	Correction to applicability of NR testcases	1.0.0
2018-05	RAN5#79	R5-183236	-	-	-	Updates to applicability for session management TCs	1.0.0
2018-06	RAN#80	RP-181211	-	-	-	put under revision control as v15.0.0 with small editorial changes	15.0.0
2018-09	RAN#81	R5-184682	0004	-	F	Update of test case title for TC 8.2.5.1.1	15.1.0
2018-09	RAN#81	R5-185157	0005	1	F	Update of NR test cases title and applicability	15.1.0
2018-09	RAN#81	R5-185162	0003	1	F	Addition of missing and new test cases applicabilities	15.1.0
2018-12	RAN#82	R5-186875	0021	-	F	Removal of applicability for RRC SCG failure tests	15.2.0
2018-12	RAN#82	R5-188196	0027	1	F	Addition of test applicabilities for 5GC testcases	15.2.0
2018-12	RAN#82	R5-187499	0029	-	F	Adding applicability of test cases 8.2.2.1.1 and 8.2.2.3.1	15.2.0
2018-12	RAN#82	R5-187799	0022	1	F	Adding applicability for 5G TC TA registration update	15.2.0
2018-12	RAN#82	R5-188103	0033	-	F	Update of applicability and selection expressions	15.2.0
2018-12	RAN#82	R5-188104	0030	1	F	Adding new test case applicability	15.2.0
2018-12	RAN#82	R5-188197	0031	3	F	Update of 5G-NR test cases applicability	15.2.0
2019-03	RAN#83	R5-192033	0043	-	F	Addition of applicability of new 5GC test case 9.1.2.2	15.3.0
2019-03	RAN#83	R5-192707	0044	1	F	Introduction of Non 3GPP Access over WLAN test case applicabilities	15.3.0
2019-03	RAN#83	R5-192809	0040	1	F	Addition of applicability for Inter-RAT measurement and handover	15.3.0
2019-03	RAN#83	R5-192856	0039	2	F	Addition of applicability for NR test case	15.3.0
2019-03	RAN#83	R5-192857	0042	3	F	Update of 5G-NR test cases applicability	15.3.0
2019-06	RAN#84	R5-194891	0054	1	F	Introduction of Non 3GPP Access over WLAN test case applicabilities	15.4.0
2019-06	RAN#84	R5-195371	0046	2	F	Addition of Applicability for test cases	15.4.0
2019-06	RAN#84	R5-195372	0051	2	F	Update of 5G-NR test cases applicability	15.4.0
2019-06	RAN#84	-	-	-	-	Administrative release upgrade to match the release of 3GPP TS 38.508-1 which was upgraded at RAN#84 to Rel-16 due to Rel-16 relevant CR(s)	16.0.0
2019-09	RAN#85	R5-197228	0057	1	F	Non 3GPP Access over WLAN test case applicabilities	16.1.0
2019-09	RAN#85	R5-197291	0062	1	F	Removal of applicability of Radio Link Failure test cases	16.1.0
2019-09	RAN#85	R5-197667	0055	2	F	Addition of applicability for RRC test cases	16.1.0
2019-09	RAN#85	R5-197668	0056	2	F	Update of 5G-NR test cases applicability	16.1.0
2019-12	RAN#86	R5-198496	0074	-	F	Non 3GPP Access over WLAN test cases applicability	16.2.0
2019-12	RAN#86	R5-199040	0070	1	F	Addition of applicability for test cases	16.2.0
2019-12	RAN#86	R5-199060	0072	1	F	Update of 5G-NR test cases applicability	16.2.0
2020-03	RAN#87	R5-200235	0077		F	Adding and modifying test applicability IMS Emergency Services	16.3.0
2020-03	RAN#87	R5-201147	0076	1	F	Correction to NR TC applicability-Split SRB	16.3.0
2020-03	RAN#87	R5-201233	0080	3	F	Update of 5G-NR test cases applicability	16.3.0
2020-06	RAN#88	R5-201381	0081	-	F	Addition of applicability for NR Idle TCs	16.4.0
2020-06	RAN#88	R5-202141	0086	-	F	Addition of new test applicability for DRX TC 7.1.1.5.5	16.4.0
2020-06	RAN#88	R5-202673	0082	1	F	Addition of applicability for NR RRC TCs	16.4.0
2020-06	RAN#88	R5-202674	0083	1	F	Addition of applicability for NR Multi Layer TCs	16.4.0
2020-06	RAN#88	R5-202675	0084	1	F	Update of 5G-NR test cases applicability	16.4.0
2020-06	RAN#88	R5-203120	0085	2	F	Introduction of applicability for new 5G IMS emergency test cases and corrections	16.4.0
2020-09	RAN#89	R5-203542	0092	-	F	Splitting and updates to applicability of NR RLC test case 7.1.2.3.5	16.5.0
2020-09	RAN#89	R5-204469	0088	1	F	Addition of applicability for NR TCs	16.5.0
2020-09	RAN#89	R5-204470	0089	1	F	Correction to applicability of NR TCs	16.5.0
2020-09	RAN#89	R5-204471	0090	1	F	Update of 5G-NR test cases applicability	16.5.0

2020-09	RAN#89	R5-204472	0094	1	F	Addition of new RRC TC for checking extended / spare field handling in SI	16.5.0
2020-09	RAN#89	R5-204473	0095	1	F	Removal of void test case and correction of condition for Inter-band measurements test cases	16.5.0
2020-09	RAN#89	R5-204519	0091	1	F	Addition of test applicabilities of test cases for voice fallback indication	16.5.0
2020-09	RAN#89	R5-204520	0093	1	F	Update applicability of Inter-RAT handover from NR to EN-DC test case	16.5.0
2020-12	RAN#90	R5-205287	0099	-	F	Addition of test applicabilities of test cases for UE power saving in NR	16.6.0
2020-12	RAN#90	R5-205389	0101	-	F	Correction to NR TC applicability	16.6.0
2020-12	RAN#90	R5-206367	0098	1	F	Update of 5G-NR test cases applicability	16.6.0
2020-12	RAN#90	R5-206368	0103	1	F	Addition of applicability for NR TCs	16.6.0
2020-12	RAN#90	R5-206399	0104	1	F	Applicability statement for new test case for PDCP Duplication for Rel-16	16.6.0
2020-12	RAN#90	R5-206400	0108	1	F	Applicability for ethernet header compression and decompression for NR	16.6.0
2020-12	RAN#90	R5-206406	0106	1	F	Add applicability for NR MobEnc TCs	16.6.0
2020-12	RAN#90	R5-206413	0105	1	F	Add applicability for NR V2X TCs	16.6.0
2020-12	RAN#90	R5-206416	0107	1	F	Addition of applicability for eMIMO Test Cases	16.6.0
2020-12	RAN#90	R5-206432	0100	1	F	Update applicability of Inter-RAT handover from NR to EN-DC test case 8.1.4.2.1.2	16.6.0
2021-03	RAN#91	R5-210161	0111	-	F	Aligning content of 38.523-2 with 38.523-1	16.7.0
2021-03	RAN#91	R5-210513	0120	-	F	Addition of applicability for new NAS Test case 9.1.9.2	16.7.0
2021-03	RAN#91	R5-210801	0128	-	F	Adding applicability for new MDT test cases	16.7.0
2021-03	RAN#91	R5-210998	0129	-	F	Correction to applicability conditions of test cases 8.1.4.2.1.2 and 11.1.9	16.7.0
2021-03	RAN#91	R5-211327	0130	-	F	Remove applicability of 5GS Non-3GPP Access Test Case 9.2.5.2.1	16.7.0
2021-03	RAN#91	R5-211412	0109	1	F	Update release applicability of RRC TC 8.1.1.2.4	16.7.0
2021-03	RAN#91	R5-211413	0112	1	F	Adding missing applicability for TC 6.1.2.7 and 8.1.5.2.2	16.7.0
2021-03	RAN#91	R5-211414	0113	1	F	Adding applicability for new IMS emergency TC 11.4.11	16.7.0
2021-03	RAN#91	R5-211415	0115	1	F	Update of 5G-NR test cases applicability	16.7.0
2021-03	RAN#91	R5-211416	0123	1	F	Correction to NR TC applicability for 5GS	16.7.0
2021-03	RAN#91	R5-211455	0124	1	F	Correction to NR TC applicability for IIoT	16.7.0
2021-03	RAN#91	R5-211461	0127	1	F	Correction to applicability for NR MobEnc	16.7.0
2021-03	RAN#91	R5-211464	0117	1	F	Addition of test applicabilities for UE power saving in NR	16.7.0
2021-03	RAN#91	R5-211487	0110	1	F	Applicability statement for new test cases for NR Immediate MDT	16.7.0
2021-03	RAN#91	R5-211488	0116	1	F	Adding applicability for new logged MDT test cases	16.7.0
2021-03	RAN#91	R5-211489	0125	1	F	Correction to NR TC applicability for MDT	16.7.0
2021-03	RAN#91	R5-211496	0121	1	F	Introduction of applicability for SRVCC from NG-RAN to 3GPP UTRAN	16.7.0
2021-03	RAN#91	R5-211504	0118	1	F	Update to applicabilities for the EPS fallback test cases	16.7.0
2021-06	RAN#92	R5-212040	0131	-	F	Applicability statement for new test cases for Connection Establishment Failure in NR MDT	16.8.0
2021-06	RAN#92	R5-212041	0132	-	F	Applicability statement for new test cases for Inter-System Immediate MDT	16.8.0
2021-06	RAN#92	R5-212380	0137	-	F	Correcting applicability condition for C36 used in TS 38.523 TC 6.1.1.5	16.8.0
2021-06	RAN#92	R5-212386	0138	-	F	Update to applicability of TC 11.4.10 and 11.4.11	16.8.0
2021-06	RAN#92	R5-212438	0139	-	F	Correction to applicability for Multi-Layer TCs	16.8.0
2021-06	RAN#92	R5-212539	0143	-	F	Remove cross slot scheduling test case applicability	16.8.0
2021-06	RAN#92	R5-212549	0144	-	F	Addition of applicability for new 5G SRVCC test case	16.8.0
2021-06	RAN#92	R5-212808	0147	-	F	Addition of applicability for NPN test cases	16.8.0
2021-06	RAN#92	R5-213375	0153	-	F	Adding applicability for new 2-Step RACH test cases	16.8.0
2021-06	RAN#92	R5-213385	0154	-	F	Correction of test applicability for TC 9.1.5.1.15	16.8.0
2021-06	RAN#92	R5-213513	0134	1	F	Update of 5G-NR test cases applicability	16.8.0
2021-06	RAN#92	R5-213514	0149	1	F	Update of test case titles of 5GC in applicability table	16.8.0
2021-06	RAN#92	R5-213515	0151	1	F	Addition of applicability for NR5G RRC TC 8.1.1.3.7	16.8.0
2021-06	RAN#92	R5-213556	0140	1	F	Correction to applicability for NR MobEnc	16.8.0
2021-06	RAN#92	R5-213572	0155	1	F	Applicability of NR V2X test cases 12.1.7.1 and 12.1.7.2	16.8.0
2021-06	RAN#92	R5-213586	0146	1	F	Addition of applicability for RACS test cases	16.8.0
2021-06	RAN#92	R5-213634	0133	1	F	Addition of applicability for new MDT TC 8.1.6.1.3.x	16.8.0
2021-06	RAN#92	R5-213635	0142	1	F	Applicability for NR MDT inter-system TCs	16.8.0
2021-06	RAN#92	R5-213636	0150	1	F	Correction to NR MDT Applicability-C126	16.8.0
2021-06	RAN#92	R5-213672	0152	1	F	Adding applicability for new NR URLLC test cases	16.8.0

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