**3GPP TSG-RAN5 Meeting #99 *R5-23XXXX***

**Incheon, Korea (Republic Of), 22nd May 2023 - 26th May 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.523-2** | **CR** | **XXXX** | **rev** | **-** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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| ***Title:*** | RAT specific PICS parameter update to applicability of NTN test cases | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated, MediaTek Inc. | | | | | | | | | |
| ***Source to TSG:*** | R5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NBIOT\_eMTC\_NTN\_plus\_EPS-UEConTest | | | | |  | ***Date:*** | | | 2023-05-24 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)*  *Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Based on the discussion paper R5-233161, it is recommended to have RAT specific PICS parameters for NTN features.  Applying the newly defined RAT specific parameters to CAT-M and NB-IOT NTN test cases. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Updated the applicabilities of all NTN test cases. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | A conformant UE supporting only one NTN RAT may unfairly fail the test case. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | TTCN Impact  Secretary to resolve AAA, BBB, CCC, KKK, LLL, XXX, YYY. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<Start of modified section>

# 4 Recommended Test Case Applicability

The applicability of each individual test is identified in Table 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 expression that are based on parameters (ICS) included in annex A of the present document.

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

When a test case is to be executed against a category M1 UE and with IMS enabled, it is assumed that the UE is compliant to GSMA profile NG.108 [55].

The columns in Table 4-1 have the following meaning:

Clause

The clause column indicates the clause number in TS 36.523-1 [19] 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 36.523-1 [19] 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 'Release' e.g. see Note 3 Table 4-1.

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 an 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 1: The conditions are defined in Table 4-1a.

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.

NOTE 1A: ICS items specified in 3GPP TS 34.123-2 [8] and 3GPP TS 34.229-2 [45] can be referred, to avoid redundant definitions.

NOTE 1B: The ICS items pc\_eFDD and pc\_eFDD, as well as pc\_NB\_FDD and pc\_NB\_TDD, specified in the present document (Table A.4.1-1) are used to identify that a test case can be run in FDD or/and TDD branch. When none of them is provided it is assumed that the test case requires both FDD and TDD.

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 in Table 4-1b.

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 E-UTRA) 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), a Note extending the release applicability to an earlier version for E-UTRA in the ‘Release’ column is not applicable to the other RATs.

EXAMPLES:

Rel-9 UTRA FDD, Rel-8 GERAN or simply as Rel-9 UTRA FDD  
(meaning that the UTRA FDD will simulate Rel-9 and the GERAN Rel-8 behaviours)

Rel-9 UTRA TDD  
(meaning that the UTRA LCR TDD network will simulate Rel-9 behaviours)

NOTE 1C: Some exceptions to this interpretation may be indicated in Notes in column 'Release other RAT' e.g. see Note 7A Table 4-1.

NOTE 2: To meet the validation requirements from certification bodies then there is a need to uniquely reference the FDD and TDD branch of common FDD and TDD test cases. The FDD and TDD branches of common FDD and TDD test cases can be referenced by amending a "FDD" or "TDD" suffix to the test case clause number. For example for AM RLC test case 7.2.3.13 the FDD and TDD branches can be identified by "7.2.3.13 FDD" and "7.2.3.13 TDD".

Table 4-1: Applicability of tests and additional information for testing

| Clause | TC Title | Release | | Applicability |  | Additional Information | |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | | Condition | Comment | Specific ICS | | Specific IXIT | **Number of TC Executions** | **Release other RAT** |
| **6** | **Idle mode operations** |  | |  |  |  | |  |  |  |
| 6.1.1.1 | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  | Either TC 6.1.1.1 or TC 6.1.1.1b shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.1a | PLMN selection / Automatic mode / between FDD and TDD | Rel-8 | | C142 | UEs supporting E-UTRA FDD and E-UTRA TDD |  | |  |  |  |
| 6.1.1.1b | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of TC 6.1.1.1 | pc\_eFDD | |  | Either TC 6.1.1.1 or TC 6.1.1.1b shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.2 | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  | Either TC 6.1.1.2 or TC 6.1.1.2a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.2a | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA This test is 'cells on single frequency only' equivalent of 6.1.1.2 | pc\_eFDD | |  | Either TC 6.1.1.2 or TC 6.1.1.2a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.3 | Cell reselection of ePLMN in manual mode | Rel-8 | | C388 | UEs supporting E-UTRA and (( NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  | Either TC 6.1.1.3 or TC 6.1.1.3b shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.3a | Cell reselection of ePLMN in manual mode / between FDD and TDD | Rel-9  (Note 3) | | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  | |  |  |  |
| 6.1.1.3b | Cell reselection of ePLMN in manual mode / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of 6.1.1.3 | pc\_eFDD | |  | Either TC 6.1.1.3 or TC 6.1.1.3b shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.4 | PLMN selection in shared network environment / Automatic mode | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.4a | PLMN selection in shared network environment / Automatic mode / Between FDD and TDD | Rel-8 | | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  | |  |  |  |
| 6.1.1.5 | Void |  | |  |  |  | |  |  |  |
| 6.1.1.6 | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection | Rel-8 | | C157a | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  | Either TC 6.1.1.6 or TC 6.1.1.6a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.6a | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection / Single Frequency operation | Rel-8 | | C157 | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on single frequency only' equivalent of 6.1.1.6 | pc\_eFDD | |  | Either TC 6.1.1.6 or TC 6.1.1.6a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.6b | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection / Two Frequencies operation | Rel-13 | | C157b | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on two frequencies only' and 'TDD cat.1bis UE only' equivalent of 6.1.1.6 | pc\_eTDD | |  | Either TC 6.1.1.6 or TC 6.1.1.6b shall be executed. (Note 21) |  |
| 6.1.1.7 | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer | Rel-10 | | C179a | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search" and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  | Either TC 6.1.1.7 or TC 6.1.1.7a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.7a | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer / Single Frequency operation | Rel-10 | | C179 | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search". This test is 'cells on single frequency only' equivalent of 6.1.1.7 | pc\_eFDD | |  | Either TC 6.1.1.7 or TC 6.1.1.7a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.8 | PLMN selection of RPLMN or (E)HPLMN; Automatic mode | Rel-8 | | C212a | UEs supporting E-UTRA and EF\_LRPLMSI\_Exception and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.9 | PLMN selection of RPLMN or (E)HPLMN; Manual mode | Rel-8 | | C213 | UEs supporting E-UTRA and ManualModeNetworkSelectionException | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.1.10 | eMTC / NTN | Rel-17 | | C414 | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A | pc\_eFDD | |  | Note 22 |  |
| 6.1.1.11 | eMTC / NTN / Multi-TAC | Rel-17 | | C414 | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A | pc\_eFDD | |  | Note 22 |  |
| 6.1.2.1 | Void |  | |  |  |  | |  |  |  |
| 6.1.2.2 | Cell selection / Qrxlevmin | Rel-8 | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.2a | Cell selection / Qqualmin | Rel-9  (Note 3) | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.2b | Cell selection / UE Cat 0 not allowed | Rel-12 | | C224 | UEs supporting E-UTRA and UE Category 0 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.2c | Cell selection / Qrxlevmin / Enhanced Coverage | Rel-13 | | C254 | UEs supporting E-UTRA and (CE mode A or CE mode B) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.2d | Cell selection / Qqualmin / Enhanced Coverage | Rel-13 | | C254 | UEs supporting E-UTRA and (CE mode A or CE mode B) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.3 | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable (S<0 or barred) | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.3a | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable (Srxlev > 0 and Squal < 0) | Rel-9  (Note 3) | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.4 | Cell reselection | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.5 | Cell reselection for interband operation | Rel-8 | | C184 a | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.5a | Cell reselection for interband operation/ Power Class 2 UE operation/ Between FDD and TDD | Rel-14  (Note 17) | | C281 | UEs supporting E-UTRA FDD and E-UTRA TDD and Bands38, 40, 41 or 42 Power class 2 operation and NOT Category M1 |  | |  |  |  |
| 6.1.2.5b | Cell reselection for interband operation using Pcompensation / Between FDD and TDD | Rel-14  (Note 17) | | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  | |  |  |  |
| 6.1.2.5c | Inter-band Cell reselection / Extended frequency list | Rel-12 | | C184 a | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.6 | Cell reselection using Qhyst, Qoffset and Treselection | Rel-8 | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.6a | Cell reselection using Treselection / Enhanced Coverage | Rel-13 | | C254 | UEs supporting E-UTRA and (CE mode A or CE mode B) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.6b | Cell reselection from cell in enhanced coverage to inter-frequency cell in normal coverage | Rel-13 | | C254b | UEs supporting E-UTRA and (CE mode A or CE mode B) and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.7 | Cell reselection / Equivalent PLMN | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  | Either TC 6.1.2.7 or TC 6.1.2.7a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.7a | Cell reselection / Equivalent PLMN / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.7 | pc\_eFDD | |  | Either TC 6.1.2.7 or TC 6.1.2.7a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.8 | Cell reselection using cell status and cell reservations / Access control class 0 to 9 | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  | Either TC 6.1.2.8 or TC 6.1.2.8a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.8a | Cell reselection using cell status and cell reservations / Access control class 0 to 9 / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.8 | pc\_eFDD | |  | Either TC 6.1.2.8 or TC 6.1.2.8a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.9 | Cell reselection using cell status and cell reservations / Access control class 11 to 15 | Rel-8 | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  | Either TC 6.1.2.9 or TC 6.1.2.9a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.9a | Cell reselection using cell status and cell reservations / Access control class 11 to 15 / Single Frequency operation | Rel-8 | | R | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.9 | pc\_eFDD | |  | Either TC 6.1.2.9 or TC 6.1.2.9a shall be executed. (Note 4) |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.10 | Cell reselection in shared network environment | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.11 | Inter-frequency Cell reselection | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.11a | Inter-frequency Cell reselection / Extended frequency list | Rel-12 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.12 | Cell reselection / Cell-specific reselection parameters provided by the network in a neighbouring cell list | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.13 | Cell reselection, Sintrasearch, Snonintrasearch | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.14 | Speed-dependent Cell reselection | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.15 | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.15a | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs / Between FDD and TDD | Rel-9  (Note 3) | | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  | |  |  |  |
| 6.1.2.15b | Inter-band Cell reselection according to cell reselection priority provided by SIBs | Rel-8 | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.16 | Cell reselection / interband operation / Between FDD and TDD | Rel-9  (Note 3) | | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  | |  |  |  |
| 6.1.2.17 | Cell reselection for Squal to check against SIntraSearchQ and SnonIntraSearchQ | Rel-9  (Note 3) | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.18 | Inter-frequency Cell reselection based on common priority information with parameters ThreshX, HighQ, ThreshX, LowQ and ThreshServing, LowQ | Rel-9  (Note 3) | | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.1.2.19 | Intra-frequency Cell reselection / MFBI | Rel-9  (Note 3) | | C189F | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 | pc\_eFDD | |  |  |  |
|  |  |  | | C189T |  | pc\_eTDD | |  |  |  |
| 6.1.2.20 | Inter-frequency Cell reselection / MFBI | Rel-9  (Note 3) | | C189bF | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | | C189bT |  | pc\_eTDD | |  |  |  |
| 6.1.2.21 | Inter-band Cell reselection / MFBI | Rel-9  (Note 3) | | C189bF | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | | C189bT |  | pc\_eTDD | |  |  |  |
| 6.1.2.22 | Cell reselection / MFBI / UE does not support multiBandInfoList | Rel-8 to Rel-9 only | | C229 a | UEs supporting E-UTRA and not support MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD | |  |  |  |
|  |  |  | | C230 |  | pc\_eTDD | |  |  |  |
| 6.1.2.23 | Inter-band Cell reselection / MFBI frequency band priority adjustment/Inter-band CA | Rel-12 | | C257 | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and freqBandIndicatorPriority-r12 and Inter-band Carrier Aggregation | pc\_eFDD | |  |  |  |
|  |  |  | | C258 |  | pc\_eTDD | |  |  |  |
| 6.2.1.1 | Inter-RAT PLMN Selection / Selection of correct RAT for OPLMN / Automatic mode | Rel-8 | | C150 | UEs supporting E-UTRA and UTRA, or E-UTRA and UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.1.2 | Inter-RAT PLMN Selection / Selection of correct RAT for UPLMN / Automatic mode | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.1.3 | Inter-RAT PLMN Selection / Selection of correct PLMN and RAT in shared network environment / Automatic mode | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.1.4 | Inter-RAT PLMN Selection / Selection of correct RAT from the OPLMN list / Manual mode | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.1.6 | Inter-RAT Background HPLMN Search / Search for correct RAT for HPLMN / Automatic Mode | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.1 | Inter-RAT Cell selection / From E-UTRA RRC\_IDLE to UTRA\_Idle / Serving cell becomes non-suitable | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.2.2 | Inter-RAT Cell selection / From E-UTRA RRC\_IDLE to GSM\_Idle/GPRS Packet\_idle / Serving cell becomes non-suitable | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.3 | Inter-RAT Cell selection / From E-UTRA RRC\_IDLE to HRPD Idle / Serving cell becomes non-suitable | Rel-8 | | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.4 | Inter-RAT Cell selection / From E-UTRAN RRC\_IDLE to 1xRTT idle / Serving cell becomes non-suitable | Rel-8 | | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.5 | Cell selection / No USIM | Rel-8 | | C182 | UEs supporting E-UTRA and UTRA and not supporting of IMS emergency call and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.2.6 | Inter-RAT Cell selection / From GSM\_Idle/GPRS Packet\_idle to E-UTRA\_RRC\_IDLE / Serving cell becomes non-suitable | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.7 | Inter-RAT Cell selection / From GSM\_Idle/GPRS Packet\_idle to E-UTRA\_RRC\_IDLE, when the serving cell is barred | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.2.8 | Inter-RAT Cell selection / From UTRA\_Idle to E-UTRA RRC\_IDLE / Serving cell becomes non-suitable | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.1 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to GSM\_Idle/GPRS Packet\_Idle | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.1a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to GSM\_Idle/GPRS Packet\_Idle (Squal < ThreshServing, LowQ, Srxlev > ThreshX, LowP and Srxlev > ThreshX, HighP) | Rel-9  (Note 3) | | C171 | UEs supporting E-UTRA and GERAN and Squal based cell reselection between E-UTRAN and GERAN and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 GERAN |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.2 | Void |  | |  |  |  | |  |  |  |
| 6.2.3.3 | Inter-RAT Cell reselection / From UTRA\_Idle to E-UTRA RRC\_IDLE | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.3a | Inter-RAT Cell reselection / From UTRA\_Idle to E-UTRA RRC\_IDLE (QqualminEUTRA, SqualServingCell < Threshserving,low2, SqualnonServingCell,x > Threshx, low2 and SqualnonServingCell,x > Threshx, high2) | Rel-9  (Note 3) | | C126 | UEs supporting E-UTRA and UTRA and supporting Squal based cell reselection to UTRAN from E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
| 6.2.3.4 | Inter-RAT cell reselection / From UTRA\_CELL\_PCH state to E-UTRA RRC\_IDLE | Rel-8 | | C77 | UEs supporting E-UTRA and UTRA and EUTRA Feature Group Indicator 1 and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.4a | Inter-RAT Cell reselection / From UTRA\_CELL\_PCH state to E-UTRA RRC\_IDLE based on RSRQ+RSRP evaluation | Rel-9  (Note 3) | | C77 | UEs supporting E-UTRA and UTRA and EUTRA Feature Group Indicator 1 and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.5 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to UTRA\_Idle | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.5a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to UTRA\_Idle (Squal > ThreshX, HighQ, Squal < ThreshServing, LowQ, Squal > ThreshX, LowQ and SnonIntraSearchQ) | Rel-9  (Note 3) | | C127 | UEs supporting E-UTRA and UTRA and supporting Squal based cell reselection to E-UTRAN from UTRAN and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
| 6.2.3.6 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to UTRA\_Idle according to RAT priority provided by dedicated signalling | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.7 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to HRPD Idle / HRPD cell is higher reselection priority than E-UTRA | Rel-8 | | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.7a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to HRPD Idle / HRPD cell is higher reselection priority than E-UTRA (Srxlev > ThreshHRPD, HighP) | Rel-9 | | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.8 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to HRPD Idle / HRPD is lower reselection priority than E-UTRA | Rel-8 | | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.8a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to HRPD Idle / HRPD cell is lower reselection priority than E-UTRA (Squal < ThreshServing, LowQ and Srxlev > ThreshHRPD, LowP | Rel-9 | | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.9 | Inter-RAT Cell reselection: from E-UTRA RRC\_IDLE to CDMA2000 1xRTT Dormant- When CDMA2000 1xRTT cell is higher reselection priority than E-UTRA | Rel-8 | | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.9a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to 1xRTT Dormant / 1xRTT cell is higher reselection priority than E-UTRA (Srxlev > Thresh1xRTT, HighP) | Rel-9 | | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.10 | Inter-RAT Cell reselection: from E-UTRA RRC\_IDLE to CDMA2000 1xRTT Idle - When CDMA2000 1xRTT is lower reselection priority than E-UTRA | Rel-8 | | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.10a | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to 1xRTT Dormant / 1xRTT cell is lower reselection priority than E-UTRA (Squal < ThreshServing, LowQ and Srxlev > Thresh1xRTT, LowP) | Rel-9  (Note 3) | | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.11 | Void |  | |  |  |  | |  |  |  |
| 6.2.3.12 | Void |  | |  |  |  | |  |  |  |
| 6.2.3.13 | Inter-RAT Cell reselection / From UTRA\_Idle to E-UTRA RRC\_IDLE according to RAT priority provided by dedicated signalling | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.14 | Inter-RAT cell reselection / from GSM\_Idle/GPRS Packet\_Idle to E-UTRA (priority of E-UTRA cells are higher than the serving cell) | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.15 | Inter-RAT Cell reselection / from GSM\_Idle/GPRS Packet\_Idle to E-UTRA (priority of E-UTRA cells are lower than the serving cell) | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.16 | Inter-RAT Cell reselection / from GSM\_Idle to E-UTRAN /based on H\_PRIO criteria | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.17 | Inter-RAT Cell reselection / from GSM\_Idle/GPRS Packet\_Idle to E-UTRA (priority E-UTRA cells) | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.18 | Inter-RAT Cell reselection / from GSM\_Idle/GPRS Packet\_Idle to E-UTRA (Not allowed E-UTRA cells) | Rel-8 | | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.19 | Redirection to E-UTRA upon the release of the CS connection | Rel-8 | | C115 | UEs supporting E-UTRA and GERAN and speech and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.20 | Void |  | |  |  |  | |  |  |  |
| 6.2.3.21 | Inter-RAT Cell reselection / From GPRS Packet\_transfer (NC0 mode) to E-UTRA | Rel-8 | | C66 | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN neighbour cell measurements and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.22 | Void |  | |  |  |  | |  |  |  |
| 6.2.3.23 | Inter-RAT Cell reselection from GPRS Packet transfer to E-UTRA in CCN Mode (PACKET CELL CHANGE CONTINUE) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
| 6.2.3.24 | Inter-RAT Cell reselection from GPRS Packet transfer to E-UTRA in CCN Mode (PACKET CELL CHANGE ORDER) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.26 | Inter-RAT Autonomous Cell reselection GPRS Packet\_transfer to E-UTRA (NC1 mode) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.27 | Inter-RAT Cell selection from GPRS Packet\_transfer to E-UTRA (NC2 Mode) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.28 | Inter-RAT Cell reselection from GPRS Packet\_transfer to E-UTRA (Network Assisted Cell Change) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.29 | Inter-RAT Cell reselection from GPRS packet\_transfer to E-UTRA in CCN mode (PACKET MEASUREMENT ORDER) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.30 | Inter-RAT Cell reselection failure from GPRS Packet transfer to E-UTRA (Network Assisted Cell Change) | Rel-8 | | C114 | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.31 | Inter-RAT Cell reselection / From UTRA\_Idle (low priority) to E-UTRA RRC\_IDLE (high priority) according to RAT priority provided by dedicated signalling | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.32 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to UTRA\_Idle, Snonintrasearch | Rel-8 | | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.3.33 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE to UTRA\_Idle / Squal based cell reselection parameters are broadcasted in E-UTRAN / UE does not support Squal based cell reselection in UTRAN | Rel-9  (Note 3) | | C131 | UEs supporting E-UTRA and UTRA and not supporting Squal based cell reselection to E-UTRAN from UTRAN and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.3.34 | Inter-RAT Cell reselection from E-UTRA to UTRA / MFBI | Rel-9 | | C189aF | UEs supporting E-UTRA and UTRA FDD and MFBI feature indicated by Feature Group Indicator 31 and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | | C189aT |  | pc\_eTDD | |  |  |  |
| 6.2.3.35 | Inter-RAT Cell reselection from UTRA to E-UTRA / MFBI | Rel-10  (Note 3) | | C189cF | UEs supporting E-UTRA and UTRA and MFBI feature indicated by Feature Group Indicator 31 and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | | C189cT |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.2.4.1 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH to E-UTRA RRC\_IDLE (Higher Priority Layers, Srxlev,x > Threshx,high and Srxlev,serv > Sprioritysearch1 and SqualServ > Sprioritysearch2) | Rel-11  (Note 3) | | C01a | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.2 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH (Higher Priority Layers, no cell reselection to E-UTRA RRC\_IDLE when Srxlev,serv < Sprioritysearch1) | Rel-11  (Note 3) | | C01a | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.3 | Inter-RAT absolute priority based reselection in UTRA \_CELL\_FACH to E-UTRA RRC\_IDLE (Higher Priority Layers, Squal,x > Threshx,high2 and Srxlev,serv > Sprioritysearch1 and SqualServ > Sprioritysearch2) | Rel-11  (Note 3) | | C01a | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.4 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH (lower priority) to E-UTRA RRC\_IDLE (higher priority) (All Layers, Srxlev,x > Threshx,high) | Rel-11  (Note 3) | | C01b | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.5 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH (lower priority) to E-UTRA RRC\_IDLE (higher priority) (All Layers, Squal,x >ThreshX,high2) | Rel-11  (Note 3) | | C01b | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.6 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH (higher priority) to E-UTRA RRC\_IDLE (lower priority) (All Layers, Srxlev,serv < Sprioritysearch1 , Srxlev,serv <Thresh serv,low and Srxlev,x > Threshx,low) | Rel-11  (Note 3) | | C01b | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.2.4.7 | Inter-RAT absolute priority based reselection in UTRA CELL\_FACH (higher priority) to E-UTRA RRC\_IDLE (lower priority) (All Layers, Srxlev,serv < Sprioritysearch1 , Squal,serv <Thresh serv,low2 and Squal,x > ThreshX,low2) | Rel-11  (Note 3) | | C01b | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL\_FACH and NOT Category M1 | pc\_eFDD | |  |  | Rel-9 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.1 | Inter-frequency Cell reselection / From E-UTRA RRC\_IDLE non-CSG cell to E-UTRA RRC\_IDLE CSG cell | Rel-8 | | C80 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.2 | Inter-RAT Cell reselection / From GSM\_Idle/GPRS Packet\_Idle to E-UTRA idle CSG cell | Rel-8 | | C95 | UEs supporting E-UTRA and GERAN and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.3 | Inter-RAT Cell reselection / From UTRA\_Idle to E-UTRA RRC\_IDLE CSG cell | Rel-8 | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.3.4 | Inter-RAT Cell reselection / From UTRA CELL\_PCH state to E-UTRA RRC\_IDLE CSG cell | Rel-8 | | C82 | UEs supporting E-UTRA and UTRA and allowed CSG list and EUTRA Feature Group Indicator 1 and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.3.5 | Manual support for CSG ID selection | Rel-8 | | C80 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.6 | Ignoring CSG cells in cell selection/reselection when allowed CSG list is empty or not supported | Rel-8 | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.7 | Inter-RAT Cell reselection from E-UTRA idle non-CSG cell to a UTRA CSG cell | Rel-8 | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.3.8 | Void |  | |  |  |  | |  |  |  |
| 6.3.9 | Manual CSG ID selection across PLMNs | Rel-9 | | C80 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.3.10 | Void |  | |  |  |  | |  |  |  |
| 6.3.11 | Void |  | |  |  |  | |  |  |  |
| 6.3.12 | Void |  | |  |  |  | |  |  |  |
| 6.4.1 | Manual CSG ID selection / Hybrid cell whose CSG ID is not in the Allowed CSG list nor Operator’s list | Rel-9  (Note 3) | | C80 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.4.2 | Inter-frequency Cell reselection / From E-UTRA RRC\_IDLE non-CSG cell to E-UTRA RRC\_IDLE member hybrid cell | Rel-9  (Note 3) | | C80 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.4.3 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE non-CSG cell to UTRA\_Idle member hybrid cell | Rel-9  (Note 3) | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.4.4 | Inter-RAT Cell reselection / From E-UTRA RRC\_IDLE non-member hybrid cell to UTRA\_Idle member hybrid cell | Rel-9  (Note 3) | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.4.5 | Inter-RAT Cell reselection / From UTRA\_Idle to E-UTRA RRC\_IDLE member hybrid cell | Rel-9  (Note 3) | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.4.6 | Inter-RAT Cell reselection / From UTRA CELL\_PCH to E-UTRA RRC\_IDLE member hybrid cell | Rel-9  (Note 3) | | C76 | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  | Rel-8 UTRA FDD |
|  |  |  | |  |  | pc\_eTDD | |  |  | Rel-9 UTRA TDD |
| 6.4.7 | Inter-RAT Cell reselection / From GSM\_Idle/GPRS Packet\_Idle to E-UTRA RRC\_IDLE member hybrid cell | Rel-9  (Note 3) | | C95 | UEs supporting E-UTRA and GERAN and allowed CSG list and manual CSG selection and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.5.1 | | WLAN Offload / Cell selection / EUTRA RRC\_Idle to/from WLAN (Qrxlevmeas, BeaconRSSI, WLAN identifier no match/match) | Rel-12 | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | pc\_eFDD |  | |  |  |
|  | |  |  |  | |  | pc\_eTDD |  | |  |
| 6.5.2 | WLAN Offload / Cell selection / EUTRA RRC\_Idle to/from WLAN (Qrxlevmeas, BackhaulRateDlWLAN) | Rel-12 | | C225 | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.5.3 | | WLAN Offload / Cell selection / EUTRA RRC\_Idle to/from WLAN (Qqualmeas, BackhaulRateUlWLAN) | Rel-12 | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 |  |  | |  |  |
|  | |  |  |  | |  | pc\_eTDD |  | |  |
| 6.5.4 | WLAN Offload / Cell selection / EUTRA RRC\_Idle to/from WLAN (Qqualmeas, ChannelUtilizationWLAN) | Rel-12 | | C225 | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.5.5 | WLAN offload / Cell selection / EUTRA RRC\_Idle to/from WLAN (ANDSF and RAN rules co-existence) | Rel-12 | | C225 | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 6.5.6 | Void |  | |  |  |  | |  |  |  |
| **7** | **Layer 2** |  | |  |  |  | |  |  |  |
| 7.1.1.1 | CCCH mapped to UL SCH/ DL-SCH / Reserved Logical Channel ID | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.1.1a | CCCH mapped to UL SCH/ DL-SCH / UE Cat 0 | Rel-12 | | C224 | UEs supporting E-UTRA and UE Category 0 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.1.2 | | DTCH or DCCH mapped to UL SCH/ DL-SCH / Reserved Logical Channel ID | Rel-8 | R | | UEs supporting E-UTRA | pc\_eFDD |  | |  |  |
|  | |  |  |  | |  | pc\_eTDD |  | |  |
| 7.1.2.1 | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by RRC / Non-contention based random access procedure | Rel-8 | | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.1a | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by RRC / Non-contention based random access procedure for high speed scenario | Rel-14 | | C313 | UEs supporting E-UTRA FDD or E-UTRA TDD and high speed enhancement for prach | pc\_eFDD | |  |  |  |
| pc\_eTDD | |  |  |  |
| 7.1.2.2 | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE in PDCCH Order / Non-contention based random access procedure | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.3 | | Correct selection of RACH parameters / Preamble selected by MAC itself / Contention based random access procedure | Rel-8 | C224c | | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  | |  |  |
|  | |  |  |  | |  | pc\_eTDD |  | |  |
| 7.1.2.3a | Correct selection of RACH parameters/ Preamble selected by MAC itself/ Contention based random access procedure/ Enhanced coverage | Rel-13 | | C254a | UEs supporting E-UTRA and CE Mode A | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.3b | Correct selection of RACH parameters / Preamble selected by MAC itself / Contention based random access procedure for high speed scenario | Rel-14 | | C313 | UEs supporting E-UTRA FDD or E-UTRA TDD and high speed enhancement for prach | pc\_eFDD | |  |  |  |
| 7.1.2.4 | Random access procedure / Successful | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.5 | Random access procedure / MAC PDU containing multiple RARs | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.6 | | Maintenance of uplink time alignment | Rel-8 | R | | UEs supporting E-UTRA | pc\_eFDD |  | |  |  |
|  | |  |  |  | |  | pc\_eTDD |  | |  |
| 7.1.2.7 | MAC contention resolution / Temporary C-RNTI | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.8 | MAC contention resolution / C-RNTI | Rel-8 | | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.9 | MAC back off indicator | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.10.1 | CA / Random access procedure / SCell / Intra-band Contiguous CA | Rel-11 | | C190 | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.10.2 | CA / Random access procedure / SCell / Inter-band CA | Rel-11 | | C191 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and multiple timing advances and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.10.3 | CA / Random access procedure / SCell / Intra-band non-contiguous CA | Rel-11 | | C192 | UEs supporting E-UTRA and Intra-band non-contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.11.1 | CA / Maintenance of uplink time alignment / Multiple TA / Intra-band Contiguous CA | Rel-11 | | C190 | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.11.2 | CA / Maintenance of uplink time alignment / Multiple TA / Inter-band CA | Rel-11 | | C191 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and multiple timing advances and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.11.3 | CA / Maintenance of uplink time alignment / Multiple TA / Intra-band non-contiguous CA | Rel-11 | | C192 | UEs supporting E-UTRA and Intra-band non-contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.2.11.4 | FDD-TDD CA / Maintenance of uplink time alignment / Multiple TA | Rel-12 | | C233 | UEs supporting E-UTRA FDD and TDD and 3DL CA and 3UL CA with tdd-FDD-CA-PCellDuplex-r12 with the first and/or second bit set to "1 "and multiple timing advances |  | |  |  |  |
| 7.1.2.12 | CA / Random access procedure / TDD SCell without PUSCH/PUCCH transmission | Rel-13 | | C320 | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair. |  | |  |  |  |
|  |  |  | | C321 | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair. | pc\_eTDD | |  |  |  |
| 7.1.2.13 | CA / PUCCH SCell / Maintenance of uplink time alignment | Rel-13 | | C301 | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.3.1 | Correct handling of DL assignment / Dynamic case | Rel-8 | | R | UEs supporting E-UTRA | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.3.2 | Correct handling of DL assignment / Semi-persistent case | Rel-8 | | C100F | UEs supporting E-UTRA and semi-persistence scheduling and Feature Group Indicator 7 | pc\_eFDD | |  |  |  |
|  |  |  | | C100T |  | pc\_eTDD | |  |  |  |
| 7.1.3.3 | MAC PDU header handling | Rel-8 | | C224a | UEs supporting E-UTRA and NOT (UE Category 0 or UE Category M1) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.3.3a | MAC PDU header handling / UE with limited TB size | Rel-12 | | C224b | UEs supporting E-UTRA and (UE Category 0 or UE Category M1) | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.3.4 | Correct HARQ process handling / DCCH and DTCH | Rel-8 | | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |
| 7.1.3.4a | Correct HARQ process handling / DCCH and DTCH/ Enhanced Coverage / CE Mode A | Rel-13 | | C254a | UEs supporting E-UTRA and CE mode A | pc\_eFDD | |  |  |  |
|  |  |  | |  |  | pc\_eTDD | |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7.1.3.5 | Correct HARQ process handling / CCCH | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.5a | Correct HARQ process handling / CCCH/ Enhanced Coverage / CE Mode A | Rel-13 | C254a | UEs supporting E-UTRA and CE Mode A | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.6 | Correct HARQ process handling / BCCH | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.3.6a | Correct HARQ process handling / Enhanced Coverage / HARQ-ACK bundling | Rel-14 | C367 | UEs supporting E-UTRA FDD and CE Mode A and HARQ-ACK bundling | pc\_eFDD |  |  |  |
| 7.1.3.7 | MAC padding | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.3.8 | Void |  |  |  |  |  |  |  |
| 7.1.3.9 | MAC reset / DL | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.3.11.1 | CA / Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.11.2 | CA / Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  | Note 11 |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.3.11.3 | CA / Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Intra-band non-Contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous CA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.11.4 | FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD SCell | Rel-12 | C235a | UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD-CA-PCellDuplex-r12 with the second bit setting to "1" |  |  |  |  |
| 7.1.3.11.5 | FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / TDD PCell and FDD SCell | Rel-12 | C234a | UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD-CA-PCellDuplex-r12 with the first bit setting to "1" |  |  |  |  |
| 7.1.3.12 | TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / CRS based transmission scheme | Rel-11  (Note 7) | C175 | UEs supporting E-UTRA TDD and TDD special subframe config | pc\_eTDD |  |  |  |
| 7.1.3.12a | TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / CRS based transmission scheme | Rel-11  (Note 7) | C175 | UEs supporting E-UTRA TDD and TDD special subframe config | pc\_eTDD |  |  |  |
| 7.1.3.13 | TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme | Rel-11  (Note 7) | C175 | UEs supporting E-UTRA TDD and TDD special subframe config | pc\_eTDD |  |  |  |
| 7.1.3.13a | TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme | Rel-11  (Note 7) | C175 | UEs supporting E-UTRA TDD and TDD special subframe config | pc\_eTDD |  |  |  |
| 7.1.3.14 | Correct handling of DL assignment / Dynamic case / EPDCCH | Rel-11 | C188 | UEs supporting E-UTRA and ePDCCH and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.15 | Correct handling of DL assignment / Semi-persistent case / EPDCCH | Rel-11 | C188 | UEs supporting E-UTRA and ePDCCH and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.16 | Correct handling of DL assignment / Dynamic case / eIMTA | Rel-12 | C256 | UEs supporting E-UTRA and eIMTA and NOT Category M1 | pc\_eTDD |  |  |  |
| 7.1.3.16a | CA / Correct handling of DL assignment / Dynamic case / eIMTA / Inter-band CA | Rel-12 | C264 | UEs supporting E-UTRA and Inter-band Carrier Aggregation and eIMTA | pc\_eTDD |  |  |  |
| 7.1.3.17 | CA / PUCCH SCell / Correct HARQ process handling | Rel-13 | C301 | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.18.1 | sTTI combination {slot, slot} / Correct handling of DL assignment / Collision handling | Rel-15 | C379 | UEs supporting E-UTRA and only {slot, slot} and not {subslot, subslot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
| 7.1.3.18.2 | sTTI combination {subslot, subslot} / Correct handling of DL assignment / Collision handling | Rel-15 | C380 | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.19 | Short TTI / Correct handling of DL assignment / HARQ sharing between PDSCH and slot/subslot-PDSCH | Rel-15 | C379a | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.20 | Short TTI / Correct handling of DL assignment / multiplexing of SPDCCH and slot/subslot-PDSCH | Rel-15 | C381 | UE supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs and L1-based SPDCCH reuse | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.21 | Short TTI / Correct handling of DL assignment / DMRS sharing | Rel-15 | C380 | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs and minimum processing timeline | pc\_eFDD |  |  |  |
| 7.1.3.22 | Short Processing Time / Correct handling of DL assignment / HARQ process sharing | Rel-15 | C378 | UE supporting E-UTRA and short processing time | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.3.23 | Enhanced Coverage / DL Fexible starting PRB | Rel-15 | C406 | UEs supporting E-UTRA and CE Mode A and flexible starting PRB for PDSCH | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.1 | Correct handling of UL assignment / Dynamic case | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.1a | Correct handling of UL assignment / Dynamic case / Skip padding transmissions | Rel-14 | C325 | UE supporting skip of uplink transmissions if no data is available | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.2 | Correct handling of UL assignment / Semi-persistent case | Rel-8 | C100F | UEs supporting E-UTRA and semi-persistence scheduling and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C100T |  | pc\_eTDD |  |  |
| 7.1.4.2a | Correct handling of UL assignment / Semi-persistent case / Skip padding transmissions / SPS activation and de-activation confirmation | Rel-14 | C326 | UE supporting skip of SPS uplink transmissions if no data is available | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.2b | Correct handling of UL assignment / Semi-persistent case / SPS interval shorter than 10 subframes | Rel-14 | C327 | UE supporting SPS interval shorter than 10 subframes | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.3 | Logical channel prioritization handling | Rel-8 | C19F | UEs supporting E-UTRA and Feature Group Indicator 6 and Feature Group Indicator 7 and NOT (UE Category 0 or UE Category 1 or UE Category M1) | pc\_eFDD |  |  |  |
|  |  |  | C19T |  | pc\_eTDD |  |  |
| 7.1.4.3a | Logical channel prioritization handling / UE with limited TB size | Rel-12 | C19aF | UEs supporting E-UTRA and Feature Group Indicator 6 and Feature Group Indicator 7 and (UE Category 0 or UE Category 1 or UE Category M1) | pc\_eFDD |  |  |  |
|  |  |  | C19aT |  | pc\_eTDD |  |  |  |
| 7.1.4.4 | Correct handling of MAC control information / Scheduling requests and PUCCH | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.5 | Correct handling of MAC control information / Scheduling requests and random access procedure | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.6 | Correct handling of MAC control information / Buffer status / UL data arrive in the UE Tx buffer and retransmission of BSR / Regular BSR | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.7 | Correct handling of MAC control information / Buffer status / UL resources are allocated / Padding BSR | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.7a | Correct handling of MAC control information / Buffer status / UL resources are allocated / Cancellation of Padding BSR | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.8 | Correct handling of MAC control information / Buffer status / Periodic BSR timer expires | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.9 | Void |  |  |  |  |  |  |  |
| 7.1.4.10 | MAC padding | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.11 | Correct HARQ process handling | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.11a | Correct HARQ process handling / Semi-persistent case / Non-adaptive retransmission / Fixed Redundancy Version | Rel-14 | C326 | UE supporting skip of SPS uplink transmissions if no data is available | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.12 | MAC reset / UL | Rel-8 | C16aF | UEs supporting E-UTRA and Feature Group Indicator 7 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C16aT |  | pc\_eTDD |  |  |
| 7.1.4.12a | MAC Partial reset / UL for Voice and Video Enhancement | Rel-14 | C299 | UE supporting PUSCH enhancement for MMTEL voice and video enhancements mode | pc\_eFDD |  |  |  |
| pc\_eTDD |  |
| 7.1.4.13 | MAC PDU header handling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.4.14 | Correct HARQ process handling / TTI bundling | Rel-8 | C99F | UEs supporting E-UTRA and TTI bundling and Feature Group Indicator 7 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C99T |  | pc\_eTDD |  |  |
| 7.1.4.14a | Correct HARQ process handling / feedback for UL data | Rel-15 | C393 | UEs supporting E-UTRA and TTI bundling and Feature Group Indicator 7 and (CE Mode A or CE Mode B) | pc\_eFDD |  |  |  |
|  |  |  | C394 |  | pc\_eTDD |  |  |
| 7.1.4.15 | UE power headroom reporting / Periodic reporting | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.16 | UE power headroom reporting / DL pathloss change reporting | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.18 | Correct handling of MAC control information / Buffer Status / UL data arrive in the UE Tx buffer / Extended buffer size | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.19.1 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Intra-band Contiguous CA | Rel-10 | C133 | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and FGI 113 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.19.2 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Inter-band CA | Rel-11 | C162 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.19.3 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Intra-band non-Contiguous CA | Rel-11 | C207 | UEs supporting E-UTRA and Uplink Intra-band non-Contiguous CA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.20.1 | CA / Correct handling of MAC control information / Buffer status / Intra-band Contiguous CA | Rel-10 | C133 | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and FGI 113 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.20.2 | CA / Correct handling of MAC control information / Buffer status / Inter-band CA | Rel-11 | C162 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.20.3 | CA / Correct handling of MAC control information / Buffer status / Intra-band non-Contiguous CA | Rel-11 | C207 | UEs supporting E-UTRA and Uplink Intra-band non-Contiguous CA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.21 | UE power headroom reporting / Extended PHR | Rel-10 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.22 | Correct HARQ process handling / UL MIMO | Rel-10 | C158 | UE supporting E-UTRA and UL MIMO and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.23 | Correct HARQ process handling / TTI bundling with enhanced HARQ pattern | Rel-12 | C227 | UEs supporting E-UTRA FDD and TTI bundling and TTI bundling with enhanced HARQ pattern and Feature Group Indicator 7 and NOT Category M1 | pc\_eFDD |  |  |  |
| 7.1.4.24 | Correct HARQ process handling / TTI bundling without resource allocation restriction | Rel-12 | C228 | UEs supporting E-UTRA and TTI bundling and NOT (UE Category 0 or Category M1) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.24a | Correct HARQ process handling / TTI bundling without resource allocation restriction / UE with limited TB size | Rel-12 | C228a | UEs supporting E-UTRA and TTI bundling and UE Category 0 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.24b | Correct HARQ process handling / Enhanced Coverage / CE Mode A | Rel-13 | C254a | UEs supporting E-UTRA and CE mode A | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.24c | Correct HARQ process handling / Enhanced Coverage / CE Mode B | Rel-13 | C255 | UEs supporting E-UTRA and CE mode B | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.24d | Correct HARQ process handling / Repetition with asynchronous PUSCH enhancement | Rel-14 | C334 | UEs supporting E-UTRA and PUSCH enhancement for MMTEL voice and video enhancements mode | pc\_eFDD |  |  |  |
| 7.1.4.25.1 | FDD-TDD CA / Correct HARQ process handling / PUSCH / FDD PCell and TDD SCell | Rel-12 | C235 | UE supporting E-UTRA FDD and TDD and 2DL CA and 2UL CA with tdd-FDD-CA-PCellDuplex-r12 with the second bit set to "1 " |  |  |  |  |
| 7.1.4.25.2 | FDD-TDD CA / Correct HARQ process handling / PUSCH / TDD PCell and FDD SCell | Rel-12 | C234 | UE supporting E-UTRA FDD and TDD and 2DL CA and 2UL CA with tdd-FDD-CA-PCellDuplex-r12 with the first bit set to "1" |  |  |  |  |
| 7.1.4.26.1 | Correct handling of MAC control information / Buffer status / Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.27.1 | DC power headroom reporting / PSCell activation and DL pathloss change reporting / SCG DRB | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.27.2 | DC power headroom reporting/ PSCell addition and DL pathloss change reporting / Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.28 | Correct handling of UL assignment / Dynamic case / eIMTA | Rel-12 | C256 | UEs supporting E-UTRA and eIMTA and NOT Category M1 | pc\_eTDD |  |  |  |
| 7.1.4.28a | CA / Correct handling of UL assignment / Dynamic case / eIMTA / Inter-band CA | Rel-12 | C265 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and eIMTA | pc\_eTDD |  |  |  |
| 7.1.4.29.1 | CA / PUCCH SCell / Correct handling of MAC control information / Scheduling requests and PUCCH | Rel-13 | C301 | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.29.2 | CA / PUCCH SCell / UE power headroom reporting / Periodic reporting | Rel-13 | C301 | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.30 | Void |  |  |  |  |  |  |  |
| 7.1.4.31 | eLAA / Logical channel prioritization handling / laa-UL-Allowed | Rel-14 | C330 | UEs supporting E-UTRA and uplink LAA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.32.1 | eLAA / SCell PUSCH / Correct handling of UL assignment / DCI0A/0B / One step scheduling | Rel-14 | C330 | UEs supporting E-UTRA and uplink LAA | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.32.2 | eLAA / SCell PUSCH / Correct handling of UL assignment / DCI4A/4B/One step scheduling | Rel-14 | C331 | UEs supporting E-UTRA and uplink LAA and UL MIMO | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.32.3 | eLAA / SCell PUSCH / Correct handling of UL assignment / DCI0A/0B / Two step scheduling | Rel-14 | C332 | UEs supporting E-UTRA and uplink LAA and two step scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.32.4 | eLAA / SCell PUSCH / Correct handling of UL assignment / DCI4A/4B / Two step scheduling | Rel-14 | C333 | UEs supporting E-UTRA and uplink LAA and two step scheduling and UL MIMO | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 7.1.4.33 | Void |  |  |  |  |  |  |  |
| 7.1.4.34 | Void |  |  |  |  |  |  |  |
| 7.1.4.35 | Void |  |  |  |  |  |  |  |
| 7.1.4.36 | Void |  |  |  |  |  |  |  |
| 7.1.4.37 | Short Processing Time / Correct handling of UL assignment | Rel-15 | C378 | UE supporting E-UTRA and short processing time | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.38.1 | sTTI combination {slot, slot} / Correct handling of UL assignment / Collision handling | Rel-15 | C379 | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
| 7.1.4.38.2 | sTTI combination {subslot, subslot} / Correct handling of UL assignment / Collision handling | Rel-15 | C380 | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.39 | Short TTI / Correct handling of UL assignment / DMRS sharing | Rel-15 | C380 | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs and minimum processing timeline | pc\_eFDD |  |  |  |
| 7.1.4.40 | Short TTI / Correct handling of MAC control information / Scheduling requests and SPUCCH | Rel-15 | C379a | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.41 | Short TTI / Correct handling of UL assignment / HARQ sharing between PUSCH and slot/subslot-PUSCH | Rel-15 | C383 | UEs supporting E-UTRA and short processing time and {slot, slot} combination in downlink and uplink CCs | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.42 | Enhanced Coverage / UL Fexible starting PRB | Rel-15 | C407 | UEs supporting E-UTRA and CE Mode A and flexible starting PRB for PUSCH | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.4.43 | eMTC / NTN / UE specific TA report / UE specific Koffset | Rel-17 | C415 | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A and Timing advance reporting in NTN cell in CE Mode A and timing relationship enhancements using Differential Koffset in CE Mode A | pc\_eFDD |  | Note 22 |  |
| 7.1.4a.1 | Correct downlink reception and uplink transmission when specific valid subframes are signalled for BL UE | Rel-13 | C254 | UEs supporting E-UTRA and (CE Mode A or CE Mode B) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.5.1 | Inter-TTI PUSCH hopping by uplink grant | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.5.2 | Predefined intra-TTI PUSCH hopping (N\_sb=1) | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.5.3 | Predefined intra-TTI PUSCH hopping (N\_sb=2/3/4) | Rel-8 | C58F | UEs supporting E-UTRA and Feature Group Indicator 21 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C58T |  | pc\_eTDD |  |  |  |
| 7.1.5.4 | Predefined inter-TTI PUSCH hopping (N\_sb=1) | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.5.5 | Predefined inter-TTI PUSCH hopping (N\_sb=2/3/4) | Rel-8 | C58F | UEs supporting E-UTRA and Feature Group Indicator 21 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C58T |  | pc\_eTDD |  |  |  |
| 7.1.5.6 | PUSCH Hopping / multi-subframe repetitions | Rel-14 | C334 | UEs supporting E-UTRA and PUSCH enhancement for MMTEL voice and video enhancements mode | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.6.1 | DRX operation / Short cycle not configured / Parameters configured by RRC | Rel-8 | C08F | UEs supporting E-UTRA and Feature Group 5 and NOT Category M1 | pc\_eFDD |  | If TC 7.1.6.5 is executed this test case is optional. (Note 13) |  |
|  |  |  | C08T |  | pc\_eTDD |  |  |
| 7.1.6.1a | DRX operation / Short cycle not configured / Parameters configured by RRC / Enhanced Coverage / CE Mode A | Rel-13 | C08aF | UEs supporting E-UTRA and Feature Group 5 and CE Mode A | pc\_eFDD |  |  |  |
|  |  |  | C08aT |  | pc\_eTDD |  |  |
| 7.1.6.2 | DRX operation / Short cycle not configured / DRX command MAC control element reception | Rel-8 | C08bF | UEs supporting E-UTRA and Feature Group 5 | pc\_eFDD |  |  |  |
|  |  |  | C08bT |  | pc\_eTDD |  |  |
| 7.1.6.3 | DRX operation / Short cycle configured / Parameters configured by RRC | Rel-8 | C216F | UEs supporting E-UTRA and Feature Group 4 and Feature Group 5 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C216T |  | pc\_eTDD |  |  |
| 7.1.6.4 | DRX operation / Short cycle configured / DRX command MAC control element reception | Rel-8 | C216F | UEs supporting E-UTRA and Feature Group 4 and Feature Group 5 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C216T |  | pc\_eTDD |  |  |
| 7.1.6.5 | eDRX operation / Long cycle configured / Parameters configured by RRC | Rel-13 | C260 | UEs supporting E-UTRA and Extended Long DRX | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.6.6 | eMTC / NTN / DRX / (UL)HARQ RTT | Rel-17 | C414 | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A | pc\_eFDD |  | Note 22 |  |
| 7.1.7.1.1 | DL-SCH transport block size selection / DCI format 1 / RA type 0 | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.2 | DL-SCH transport block size selection / DCI format 1 / RA type 1 | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.3 | DL-SCH transport block size selection / DCI format 1A / RA type 2 / Localised VRB | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.4 | DL-SCH transport block size selection / DCI format 1A / RA type 2 / Distributed VRB | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.5 | DL-SCH transport block size selection / DCI format 2A / RA type 0 / Two transport blocks enabled / Transport block to codeword swap flag value set to ’0’ | Rel-8 | C56 | UEs supporting E-UTRA and (UE Category 2 to UE Category 5) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.6 | DL-SCH transport block size selection / DCI format 2A / RA type 1 / Two transport blocks enabled / Transport block to codeword swap flag value set to ’1’ | Rel-8 | C56 | UEs supporting E-UTRA and (UE Category 2 to UE Category 5) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.1.6a | DL-SCH transport block size selection / DCI format 2A / RA type 0 and RA type 1 / Two transport blocks enabled / 3 and 4 Layer Spatial Multiplexing | Rel-10 | C296 | UEs supporting E-UTRA and ((UE Category 5 to UE Category 7) or (UE Category 9 to UE Category 12) or UE DL Category 15 or UE DL Category 16 or UE DL Category 18 or UE DL Category 19 or UE DL Category 20 or UE DL Category 21) and 4-layer spatial multiplexing. | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.7 | DL-SCH transport block size selection / DCI format 1 / RA type 0 / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.8 | DL-SCH transport block size selection / DCI format 1 / RA type 1 / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.9 | DL-SCH transport block size selection / DCI format 1B / RA type 2 / Localised VRB / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.10 | DL-SCH transport block size selection / DCI format 1B / RA type 2 / Distributed VRB / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.11 | DL-SCH transport block size selection / DCI format 2A / RA type 0 / Two transport blocks enabled / Transport block to codeword swap flag value set to ’0’ / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.12 | DL-SCH transport block size selection / DCI format 2A / RA type 1 / Two transport blocks enabled / Transport block to codeword swap flag value set to ’1’ / 256QAM | Rel-12 | C248 | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.12a | DL-SCH transport block size selection / DCI format 2A / RA type 0 and RA type 1 / Two transport blocks enabled / 3 and 4 Layer Spatial Multiplexing / 256QAM | Rel-12 | C297 | UEs supporting E-UTRA and (UE Category 11 or UE Category 12 or UE DL Category 13 or UE DL Category 15 or UE DL Category 16 or UE DL Category 18 or UE DL Category 19) or UE DL Category 20 or UE DL Category 21 and 4-layer spatial multiplexing and downlink 256QAM. | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.13 | DL-SCH transport block size selection / DCI format 6-1A / RA type 2 / Localised VRB | Rel-13 | C254d | UEs supporting E-UTRA and CE mode A and NOT Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.13a | DL-SCH transport block size selection / DCI format 6-1A / RA type 2 / Localised VRB / CAT M2 | Rel-14 | C254e | UEs supporting E-UTRA and Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.14 | DL-SCH transport block size selection / DCI format 6-1B | Rel-13 | C255 a | UEs supporting E-UTRA and CE mode B and NOT Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.1.14a | DL-SCH transport block size selection / DCI format 6-1B / CAT M2 | Rel-14 | C255b | UEs supporting E-UTRA and CE mode B and Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.2.1 | UL-SCH transport block size selection / DCI format 0 | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.1.7.2.2 | UL-SCH transport block size selection / DCI format 6-0A | Rel-13 | C254a | UEs supporting E-UTRA and CE mode A and NOT Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.2.2a | UL-SCH transport block size selection / DCI format 6-0A / CAT M2 | Rel-14 | C254e | UEs supporting E-UTRA and Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.2.3 | UL-SCH transport block size selection / DCI format 6-0B/ Uplink resource allocation type 2 | Rel-13 | C255 a | UEs supporting E-UTRA and CE mode B and NOT Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.2.3a | UL-SCH transport block size selection / DCI format 6-0B/ Uplink resource allocation type 2 / CAT M2 | Rel-14 | C255b | UEs supporting E-UTRA and CE mode B and Category M2 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.7.2.4 | UL-SCH transport block size selection / DCI format 0 / UL 256QAM | Rel-14 | C224d | UE supporting E-UTRA and UL 256QAM | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.8.1 | Periodic RI reporting using PUCCH / UE only supports 1 layer for spatial multiplexing in DL / Transmission mode 3/4 | Rel-8 | C103 | UEs supporting E-UTRA and (UE Category 0 or UE Category 1) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.9.1.1 | CA / Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band Contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.9.1.2 | CA / Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.9.1.3 | CA / Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Intra-band non-Contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-Contiguous CA Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.9.2 | CA / PUCCH SCell / Activation/Deactivation of SCells | Rel-13 | C301 | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.10.1 | Sending SR on PUCCH with DMRS generated by using virtual cell identity / nPUCCH-Identity | Rel-11 | C208 | UEs supporting E-UTRA and UL CoMP and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.10.2 | Transmitting data on PUSCH with DMRS generated by using virtual cell identity / nPUSCH-Identity | Rel-11 | C208 | UEs supporting E-UTRA and UL CoMP and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.11.1 | LAA transmits common control information in PDCCH scrambled with CC-RNTI | Rel-13 | C280 | UEs supporting E-UTRA and downlink LAA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.12.1 | DataInactivityTimer expiry | Rel-14 | C295 | UEs supporting E-UTRA and data inactivity monitoring | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.1.13.1.1 | Hibernation of SCells / Hibernation MAC control element reception / sCellHibernationTimer / dormantSCellDeactivationTimer / Intra-band Contiguous CA | Rel-15 | C373 | UEs supporting E-UTRA and Intra-band Carrier Aggregation and modification of SCell in dormant state | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.2.2.1 | UM RLC / Segmentation and reassembly / 5-bit SN / Framing info field | Rel-8 | C15F | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C15T |  | pc\_eTDD |  |  |  |
| 7.2.2.2 | UM RLC / Segmentation and reassembly / 10-bit SN / Framing info field | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.3 | UM RLC / Reassembly / 5-bit SN / LI value > PDU size | Rel-8 | C15F | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C15T |  | pc\_eTDD |  |  |  |
| 7.2.2.4 | UM RLC / Reassembly / 10-bit SN / LI value > PDU size | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.5.1 | UM RLC / 5-bit SN / Correct use of sequence numbering | Rel-8 | C15F | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C15T |  | pc\_eTDD |  |  |  |
| 7.2.2.5.2 | UM RLC / 10-bit SN / Correct use of sequence numbering | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.6 | UM RLC / Concatenation, segmentation and reassembly | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.7 | UM RLC / In sequence delivery of upper layer PDUs without residual loss of RLC PDUs / Maximum re-ordering delay below *t-Reordering* | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.8 | UM RLC / In sequence delivery of upper layer PDUs without residual loss of RLC PDUs / Maximum re-ordering delay exceeds *t-Reordering* | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.9 | UM RLC / In sequence delivery of upper layer PDUs with residual loss of RLC PDUs / Maximum re-ordering delay exceeds *t-Reordering* | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.10 | UM RLC / Duplicate detection of RLC PDUs | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |  |
| 7.2.2.11 | UM RLC / RLC re-establishment procedure | Rel-8 | C362 | UEs supporting E-UTRA and Feature Group Indicator 7 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 7) | pc\_eFDD |  |  |  |
|  |  |  | C363 |  | pc\_eTDD |  |  |  |
| 7.2.2.12 | eMTC / NTN / AM RLC / Receiver status triggers / extended t-Reordering configured | Rel-17 | C414 | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A | pc\_eFDD |  | Note 22 |  |
| 7.2.3.1 | AM RLC / Concatenation and reassembly | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.2 | AM RLC / Segmentation and reassembly / No PDU segmentation | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.3 | AM RLC / Segmentation and reassembly / Framing info field | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.4 | AM RLC / Segmentation and reassembly / Different numbers of length indicators | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.5 | AM RLC / Reassembly / LI value > PDU size | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.6 | AM RLC / Correct use of sequence numbering | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.7 | AM RLC / Control of transmit window | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.8 | AM RLC / Control of receive window | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.9 | AM RLC / Polling for status | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.10 | AM RLC / Receiver status triggers | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.11 | Void |  |  |  |  |  |  |  |
| 7.2.3.12 | Void |  |  |  |  |  |  |  |
| 7.2.3.13 | AM RLC / Reconfiguration of RLC parameters by upper layers | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.14 | AM RLC / In sequence delivery of upper layers PDUs | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.2.3.15 | AM RLC / Re-ordering of RLC PDU segments | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.16 | AM RLC / Re-transmission of RLC PDU without re-segmentation | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.17 | AM RLC / Re-segmentation RLC PDU / SO, FI, LSF | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.18 | AM RLC / Reassembly / AMD PDU reassembly from AMD PDU segments, segmentation Offset and Last Segment Flag fields | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.19 | Void |  |  |  |  |  |  |  |
| 7.2.3.20 | AM RLC / Duplicate detection of RLC PDUs | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.2.3.21 | AM RLC / RLC re-establishment at RRC connection reconfiguration including *mobilityControlInfo* IE | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.1.1 | Maintenance of PDCP sequence numbers / User plane / RLC AM | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.1.2 | Maintenance of PDCP sequence numbers / User plane / RLC UM / Short PDCP SN (7 bits) | Rel-8 | C15F | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C15T |  | pc\_eTDD |  |  |
| 7.3.1.3 | Maintenance of PDCP sequence numbers / User plane / RLC UM / Long PDCP SN (12 bits) | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |
| 7.3.3.1 | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / SNOW 3G | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.3.2 | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / SNOW 3G | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.3.3 | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / AES | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.3.4 | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / AES | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.3.5 | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / ZUC | Rel-11  (Note 3) | C215 | UEs supporting E-UTRA and ZUC algorithm | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.3.6 | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / ZUC | Rel-11  (Note 3) | C215 | UEs supporting E-UTRA and ZUC algorithm | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.4.1 | Integrity protection / Correct functionality of EPS AS integrity algorithms / SNOW3G | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.4.2 | Integrity protection / Correct functionality of EPS AS integrity algorithms / AES | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.4.3 | Integrity protection / Correct functionality of EPS AS integrity algorithms / ZUC | Rel-11  (Note 3) | C215 | UEs supporting E-UTRA and ZUC algorithm | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.5.1 | Void |  |  |  |  |  |  |  |
| 7.3.5.2 | PDCP handover / Lossless handover / PDCP sequence number maintenance | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.5.3 | PDCP handover / Non-lossless handover PDCP sequence number maintenance | Rel-8 | C362 | UEs supporting E-UTRA and Feature Group Indicator 7 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 7) | pc\_eFDD |  |  |  |
|  |  |  | C363 |  | pc\_eTDD |  |  |
| 7.3.5.4 | PDCP handover / Lossless handover / PDCP status report to convey the information on missing or acknowledged PDCP SDUs at handover | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.5.5 | PDCP handover / In-order delivery and duplicate elimination in the downlink | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.5.6 | PDCP handover / DAPS handover with key change / Status reporting / Intra-Frequency | Rel-16 | C398 | UEs supporting E-UTRA and intra-frequency DAPS handover | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |
| 7.3.5.7 | PDCP handover / DAPS handover with key change / Status reporting / Inter-Frequency | Rel-16 | C404 | UEs supporting E-UTRA and inter-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.6.1 | PDCP Discard | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7 | pc\_eFDD |  |  |  |
|  |  |  | C16T |  | pc\_eTDD |  |  |
| 7.3.6.2 | Ethernet header compression and decompression / Correct functionality of ethernet header compression and decompression | Rel-6 | C395 | UEs supporting E-UTRA and RLC UM and PDCP ethernet header compression | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 7.3.7.1 | PDCP Uplink Routing / Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.2 | PDCP Data Recovery / Reconfiguration of Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.3 | PDCP Data Recovery / Reconfiguration of Split DRB to MCG/SCG DRBs | Rel-12 | C246 | UEs supporting E-UTRA and DC Split DRB and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.4 | PDCP re-establishment at handover / Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.5 | PDCP re-establishment at handover of MCG/SCG DRBs and at SCG change without handover with SCG DRB change | Rel-12 | C246 | UEs supporting E-UTRA and DC Split DRB and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.6 | PDCP reordering of Split DRB / Maximum re-ordering delay below t-Reordering | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.7.7 | PDCP reordering of Split DRB / t-Reordering timer operations | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.8.1 | Security Aspects / ProSe Direct Communication / Security Information for Confidentiality Protection - Correct Counting and Wrapping | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication | pc\_eFDD |  |  |  |
| 7.3.8.2 | Security Aspects / ProSe Direct Communication / Security Information for no Confidentiality Protection | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication | pc\_eFDD |  |  |  |
| 7.3.8.3 | Void |  |  |  |  |  |  |  |
| 7.3.9.1 | PDCP SDU transmission/ V2X Sidelink Communication/ No Confidentiality Protection for both Non-IP type and IP type | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 7.3.10.1 | PDCP UDC / No dictionary | Rel-15 | C352 | UEs supporting E-UTRA and the uplink data compression operation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.10.2 | PDCP UDC / Pre-defined dictionary | Rel-15 | C353 | UEs supporting E-UTRA and UL data compression with SIP static dictionary | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 7.3.10.3 | PDCP UDC / Reset | Rel-15 | C352 | UEs supporting E-UTRA and the uplink data compression operation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| **8** | **RRC** |  |  |  |  |  |  |  |
| 8.1.1.1 | Void |  |  |  |  |  |  |  |
| 8.1.1.1a | RRC / Direct Indication Information / Notification of BCCH modification in idle mode | Rel-13 | C254 | UEs supporting E-UTRA and (CE Mode A or CE Mode B) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.2 | RRC / Paging for notification of BCCH modification in idle mode | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.2a | RRC / Paging for notification of BCCH modification in idle mode / eDRX cycle longer than the modification period / eDRX cycle with eDRX Allowed/Not Allowed | Rel-13 | C262 | UEs supporting E-UTRA and Extended DRX | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.3 | RRC / Paging for connection in idle mode / Multiple paging records | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.4 | RRC / Paging for connection in idle mode / Shared network environment | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.5 | Void |  |  |  |  |  |  |  |
| 8.1.1.6 | RRC / BCCH modification in connected mode | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.1.7 | RRC / Paging / EAB active | Rel-11 | C194 | UEs supporting E-UTRA and EAB and LAP | pc\_eFDD |  |  |  |
| 8.1.1.8 | RRC / Paging / DRX Operation / Enhanced Coverage / WUS | Rel-15 | C384 | UEs supporting E-UTRA FDD and (CE mode A or CE mode B) and WUS | pc\_eFDD |  |  |  |
| 8.1.1.9 | RRC / Paging / eDRX Operation / Enhanced Coverage / WUS | Rel-15 | C385 | UEs supporting E-UTRA FDD and (CE mode A or CE mode B) and eDRX and WUS | pc\_eFDD |  |  |  |
| 8.1.2.1 | Void |  |  |  |  |  |  |  |
| 8.1.2.2 | RRC connection establishment / Reject with wait time | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.3 | RRC connection establishment / Return to idle state after T300 timeout | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.2.4 | Void |  |  |  |  |  |  |  |
| 8.1.2.5 | RRC connection establishment / 0% access probability for MO calls, no restriction for MO signalling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.6 | RRC connection establishment / Non-zero percent access probability for MO calls, no restriction for MO signalling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.7 | RRC connection establishment / 0% access probability for AC 0 to 9, AC 10 is barred, AC 11 to 15 are not barred, access for UE with access class in the range 11 to 15 is allowed | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.8 | RRC connection establishment / Range of access baring time | Rel-8 | C97 | UEs supporting E-UTRA and Multiple PDN | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.2.9 | RRC Connection Establishment / 0% access probability for MO calls, non-zero percent access probability for MO signalling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.10 | Void |  |  |  |  |  |  |  |
| 8.1.2.11 | Void |  |  |  |  |  |  |  |
| 8.1.2.12 | Void |  |  |  |  |  |  |  |
| 8.1.2.13 | RRC connection establishment / 0% access probability for MO calls, 0% access probability for MO signalling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |
| 8.1.2.14 | RRC connection establishment / High speed flag | Rel-9  (Note 3) | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.2.15 | RRC connection establishment / Extended and spare fields in SI | Rel-8 to Rel-16 only | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.1 | Void |  |  |  |  |  |  |  |
| 8.1.3.2 | Void |  |  |  |  |  |  |  |
| 8.1.3.3 | Void |  |  |  |  |  |  |  |
| 8.1.3.4 | RRC connection release / Redirection to another E-UTRAN frequency | Rel-8 | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.5 | RRC connection release / Success / With priority information | Rel-8 | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.5a | RRC connection release / Success / With extended priority information | Rel-12 | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.6 | RRC connection release / Redirection from E-UTRAN to UTRAN | Rel-8 | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.1.3.6a | RRC connection release / Redirection from E-UTRAN to UTRAN / Pre-redirection info | Rel-9  (Note 3) | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.1.3.7 | RRC connection release / Redirection from UTRAN to E-UTRAN | Rel-8 | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.1.3.8 | RRC connection release / Redirection from E-UTRAN to GERAN | Rel-8 | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.9 | RRC connection release / Redirection from E-UTRAN to CDMA2000-HRPD | Rel-8 | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.10 | RRC connection release / Redirection from E-UTRAN to CDMA2000-1xRTT | Rel-8 | C07 | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.11 | RRC connection release / Redirection to another E-UTRAN band | Rel-9  (Note 3) | C184 a | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.11a | RRC connection release / Redirection to another E-UTRAN band / Between FDD and TDD | Rel-9  (Note 3) | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.1.3.12 | RRC connection release / Success / With priority information / Inter-band | Rel-9  (Note 3) | C184 a | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  | Either TC 8.1.3.12 or TC 8.1.3.12b shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.12a | RRC connection release / Success / With priority information / Inter-band / Between FDD and TDD | Rel-9  (Note 3) | C389 | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.1.3.12b | RRC connection release / Success / With priority information / Inter-band (Single frequency operation in source band) | Rel-9  (Note 3) | C388 | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  | Either TC 8.1.3.12 or TC 8.1.3.12b shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.13 | LTE RRC connection release / Success / With idle mode measurement information from SIB5 | Rel-15 | C372 | UEs supporting E-UTRA and idle mode measurements | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.14 | LTE RRC connection release / Success / With idle mode measurement information from RRCConnectionRelease | Rel-15 | C372 | UEs supporting E-UTRA and idle mode measurements | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.1.3.15 | LTE RRC connection release / Success / With idle mode measurement information / No idle mode measurement capability provided | Rel-15 | C372 | UEs supporting E-UTRA and idle mode measurements | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.1 | RRC connection reconfiguration / Radio bearer establishment for transition from RRC\_IDLE to RRC\_CONNECTED / Success / Default bearer / Early bearer establishment | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.2 | Void |  |  |  |  |  |  |  |
| 8.2.1.3 | RRC connection reconfiguration / Radio bearer establishment / Success / Dedicated bearer | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.4 | Void |  |  |  |  |  |  |  |
| 8.2.1.5 | RRC connection reconfiguration / Radio bearer establishment for transition from RRC\_IDLE to RRC CONNECTED / Success / Latency check | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.6 | RRC connection reconfiguration / Radio bearer establishment for transition from RRC\_IDLE to RRC CONNECTED / Success / Latency check / SecurityModeCommand and RRCConnectionReconfiguration transmitted in the same TTI | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.7 | RRC connection reconfiguration / Radio bearer establishment / Success / SRB2 | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.1.8 | RRC connection reconfiguration / Radio bearer establishment / Success / Dedicated bearer / ROHC configured | Rel-9  (Note 3) | C120F | UEs supporting E-UTRA and Feature Group Indicator 7 and ROHC profile0x0001 and ROHC profile0x0002 | pc\_eFDD |  |  |  |
|  |  |  | C120T |  | pc\_eTDD |  |  |  |
| 8.2.2.1 | RRC connection reconfiguration / Radio resource reconfiguration / Success | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.2 | RRC connection reconfiguration / SRB/DRB reconfiguration / Success | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.3.1 | CA / RRC connection reconfiguration / SCell addition/modification/release / Success / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.3.2 | CA / RRC connection reconfiguration / SCell addition/modification/release / Success / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.3.3 | CA / RRC connection reconfiguration / SCell addition/ modification/release / Success / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.4.1 | CA / RRC connection reconfiguration / SCell SI change / Success / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.4.2 | CA / RRC connection reconfiguration / SCell SI change / Success / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.4.3 | CA / RRC connection reconfiguration / SCell SI change / Success / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.5.1 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  | a |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.5.2 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.5.3 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Intra-band non-Contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.5a.1 | CA / RRC connection reconfiguration / SCell addition without UL / SRS configuration / Periodic / multi-SRS switching | Rel-14 | C320 | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair. |  |  |  |  |
| C321 | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair. | pc\_eTDD |  |  |  |
| 8.2.2.5a.2 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration / Aperiodic | Rel-14 | C320 | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair. |  |  |  |  |
| C321 | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair. | pc\_eTDD |  |  |  |
| 8.2.2.5a.3 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration / Collision handling / Priority | Rel-14 | C320 | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair. |  |  |  |  |
| C321 | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair. | pc\_eTDD |  |  |  |
| 8.2.2.5a.4 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration / Collision handling / flexible SRS transmitting | Rel-14 | C320 | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair. |  |  |  |  |
| C321 | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair. | pc\_eTDD |  |  |  |
| 8.2.2.6.1 | RRC connection reconfiguration/ UE Assistance Information/power preference indication setup and release | Rel-11 | C187 | UEs supporting E-UTRA and Power Preference Indication | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.6.2 | RRC connection reconfiguration/ UE Assistance Information/power preference indication release on connection re-establishment | Rel-11 | C 187 | UEs supporting E-UTRA and Power Preference Indication | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.6.3 | RRC connection reconfiguration/ UE Assistance Information/T340 running | Rel-11 | C187 | UEs supporting E-UTRA and Power Preference Indication | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.6.4 | Void |  |  |  |  |  |  |  |
| 8.2.2.6.5 | Void |  |  |  |  |  |  |  |
| 8.2.2.6.6 | Void |  |  |  |  |  |  |  |
| 8.2.2.7.1 | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Intra-band contiguous CA | Rel-11 | C190 | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.7.2 | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Inter-band CA | Rel-11 | C191 | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and multiple timing advances and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.7.3 | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Intra-band non-contiguous CA | Rel-11 | C192 | UEs supporting E-UTRA and Intra-band non-contiguous Uplink Carrier Aggregation and multiple timing advances | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.8 | RRC connection reconfiguration / SIB1 information / Success | Rel-11 | C268 | UEs supporting E-UTRA and Support of CRS interference handling and Synchronisation signal and common channel interference handling | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.9.1 | RRC connection reconfiguration / PSCell addition and SCG release / SCG / DRB | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.9.2 | RRC connection reconfiguration / PSCell addition and SCG release / Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.9.3 | RRC connection reconfiguration / SCG change without handover / SCG DRB to MCG DRB and SCG DRB modification | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.9.4 | Void |  |  |  |  |  |  |  |
| 8.2.2.9.5 | Void |  |  |  |  |  |  |  |
| 8.2.2.10 | eIMTA / RRC connection reconfiguration / Radio resource reconfiguration / Success | Rel-12 | C256 | UEs supporting E-UTRA and eIMTA and NOT Category M1 | pc\_eTDD |  |  |  |
| 8.2.2.11 | Short Processing Time / SRS configuration / Aperiodic | Rel-15 | C378 | UE supporting E-UTRA and short processing time | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.12 | Short TTI / SRS configuration / TDD / Aperiodic | Rel-15 | C382 | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs and SRS trigerring via DCI format 7 | pc\_eTDD |  |  |  |
| 8.2.2.13.1 | CA / RRC connection reconfiguration / SCell addition in dormant mode / Success / Intra-band Contiguous CA | Rel-15 | C374 | UEs supporting E-UTRA and Intra-band Carrier Aggregation and addition of SCell in dormant state | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.2.14.1 | CA / RRC connection reconfiguration / SCell addition in activated mode / Success / Intra-band Contiguous CA | Rel-15 | C375 | UEs supporting E-UTRA and Intra-band Carrier Aggregation and addition of SCell in activated state | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.3.1 | RRC connection reconfiguration / Radio bearer release / Success | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.1 | RRC connection reconfiguration / Handover / Success / Dedicated preamble | Rel-8 | C12 | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.2 | RRC connection reconfiguration / Handover / Success / Common preamble | Rel-8 | C12 | (UEs supporting E-UTRA and NOT C ategory M1) or (UEs supporting E-UTRA and CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.3 | RRC connection reconfiguration / Handover / Success / Intra-cell / Security reconfiguration | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.4 | RRC connection reconfiguration / Handover / Failure / Intra-cell / Security reconfiguration | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.5 | RRC connection reconfiguration / Handover / All parameters included | Rel-8 | C12 | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A””) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.6 | RRC connection reconfiguration / Handover / Success / Inter-frequency | Rel-8 | C21aF | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  | C21aT |  | pc\_eTDD |  |  |  |
| 8.2.4.7 | RRC connection reconfiguration / Handover / Failure / Re-establishment successful | Rel-8 | C12 | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A and intra-frequency handover to target cell in normal coverage and CE Mode A) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.8 | RRC connection reconfiguration / Handover / Failure / Re-establishment failure | Rel-8 | C12 | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.9 | RRC connection reconfiguration / Handover / Inter-band blind handover / Success | Rel-8 | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  | C185T |  | pc\_eTDD |  |  |  |
| 8.2.4.10 | RRC connection reconfiguration / Handover (between FDD and TDD) | Rel-8 | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.2.4.11 | Void |  |  |  |  |  |  |  |
| 8.2.4.12 | RRC connection reconfiguration / Handover / Setup and release of MIMO | Rel-8 | C56 | UEs supporting E-UTRA and (UE Category 2 to UE Category 5) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.13 | RRC connection reconfiguration / Handover / Success (with measurement) / Inter-band | Rel-9  (Note 3) | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  | C185T |  | pc\_eTDD |  |  |  |
| 8.2.4.13a | RRC connection reconfiguration / Handover / Success (with measurement) / Inter-band / Between FDD and TDD | Rel-9  (Note 3) | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.2.4.14 | RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Inter-band | Rel-9  (Note 3) | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C185T |  | pc\_eTDD |  |  |  |
| 8.2.4.14a | RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Inter-band / Between FDD and TDD | Rel-9  (Note 3) | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.2.4.15 | RRC connection reconfiguration / Handover / Failure / Re-establishment failure / Inter-band | Rel-9  (Note 3) | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | pc\_eFDD |  |  |  |
|  |  |  | C185T |  | pc\_eTDD |  |  |  |
| 8.2.4.15a | RRC connection reconfiguration / Handover / Failure / Re-establishment failure / Inter-band / Between FDD and TDD | Rel-9  (Note 3) | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.2.4.16.1 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Intra-band Contiguous CA | Rel-10 | C176 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and does not support Category 1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.16.2 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Inter-band CA | Rel-10 | C177 | UEs supporting E-UTRA and Inter-band Carrier Aggregation and does not support Category 1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.16.3 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.17.1 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.17.2 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition / Inter-band CA | Rel-10 | C242 | UEs supporting E-UTRA and Inter-band Carrier Aggregation and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.17.3 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.18.1 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.18.2 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.18.3 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.19.1 | CA / RRC connection reconfiguration / Handover / Success / PCell Change / SCell no Change / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.19.2 | CA / RRC connection reconfiguration / Handover / Success / PCell Change / SCell no Change / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.19.3 | CA / RRC connection reconfiguration / Handover / Success / PCell Change / SCell no Change / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
| 8.2.4.20.1 | CA / RRC connection reconfiguration / Handover / Success / SCell Change / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.20.2 | CA / RRC connection reconfiguration / Handover / Success / SCell Change / Inter-band CA | Rel-10 | C242 | UEs supporting E-UTRA and Inter-band Carrier Aggregation and UL (Pcell) supported in each band of Inter-band CA combination under test | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.20.3 | CA / RRC connection reconfiguration / Handover / Success / SCell Change Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.21.1 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.21.2 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.21.3 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.22 | Void |  |  |  |  |  |  |  |
| 8.2.4.23.1 | CA / RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.23.2 | CA / RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.23.3 | CA / RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Intra-band non-Contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-Contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.24.1 | Void |  |  |  |  |  |  |  |
| 8.2.4.25.1 | RRC connection reconfiguration / Intra-MeNB Handover / MCG DRB to MCG DRB and MCG DRB to/from SCG DRB | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.2 | RRC connection reconfiguration / Intra-MeNB Handover / MCG DRBs to/from Split DRB | Rel-12 | C246 | UEs supporting E-UTRA and DC Split DRB and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.3 | RRC connection reconfiguration / Intra-MeNB Handover / Split DRB to Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.4 | RRC connection reconfiguration / Handover with SCG release / MCG/SCG DRBs to MCG DRB | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.5 | RRC connection reconfiguration / Handover with SCG release / Split DRB to MCG DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.6 | RRC connection reconfiguration / Handover with SCG reconfiguration / SCG DRB to SCG DRB | Rel-12 | C245 | UEs supporting E-UTRA and DC SCG DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.25.7 | RRC connection reconfiguration / Handover with SCG reconfiguration / Split DRB to Split DRB | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.26 | eIMTA / RRC connection reconfiguration / Handover / Success | Rel-12 | C256 | UEs supporting E-UTRA and eIMTA and NOT Category M1 | pc\_eTDD |  |  |  |
| 8.2.4.27 | RRC connection reconfiguration / Handover / Success / Intra-frequency in Enhanced Coverage | Rel-13 | C254c | UEs supporting E-UTRA and CE mode A and eventA3 for intra-frequency neighbouring cells in normal coverage and intra-frequency handover to target cell in normal coverage | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.28 | eCall Only mode / RRC connection reconfiguration / Inter-frequency Handover / Success | Rel-14  (Note 7) | C314a | UEs supporting E-UTRA and IMS eCall Only type of emergency services over EPS and Automatic type of eCall initiation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.29 | UDC/ RRC connection reconfiguration / Handover / Success | Rel-15 | C352 | UEs supporting E-UTRA and the uplink data compression operation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.1 | RRC connection reconfiguration / Handover / DAPS Handover / Success / Intra-Frequency | Rel-16 | C398 | UEs supporting E-UTRA and intra-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.2 | DAPS handover / Success / Radio Link Failure in source / Intra-Frequency | Rel-16 | C398 | UEs supporting E-UTRA and intra-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.3 | DAPS handover / Failure / source link available / Radio Link Failure in source / Intra-Frequency | Rel-16 | C398 | UEs supporting E-UTRA and intra-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.5 | DAPS handover / Success / Radio Link Failure in source / Inter-Frequency | Rel-16 | Caa01 | UEs supporting E-UTRA and inter-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.6 | DAPS handover / Failure / source link available / Radio Link Failure in source / Inter-Frequency | Rel-16 | Caa01 | UEs supporting E-UTRA and inter-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.30.4 | RRC connection reconfiguration / Handover / DAPS Handover / Success / Inter-Frequency | Rel-16 | C404 | UEs supporting E-UTRA and inter-frequency DAPS handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.31.1 | RRC connection reconfiguration / Handover / Conditional Handover/ Success / A3 / A5 / A3+A5 | Rel-16 | C399 | UEs supporting E-UTRA conditional handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.31.2 | Conditional handover / modify conditional handover configuration | Rel-16 | C399 | UEs supporting E-UTRA conditional handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.31.3 | Conditional handover / Failure | Rel-16 | C399 | UEs supporting E-UTRA conditional handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.4.31.4 | Conditional handover / Handover / Handover Failure | Rel-16 | C399 | UEs supporting E-UTRA conditional handover | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.1 | LWA / WLAN Release / WLAN Association / EUTRA RRC\_Connected to WLAN (Event W2) | Rel-13 | C267 | UEs supporting E-UTRA and LWA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.2 | LWA / WLAN Release Success / EUTRA RRC\_Connected from WLAN (Event W3) | Rel-13 | C267 | UEs supporting E-UTRA and LWA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.4 | LWA / WLAN Association Success / EUTRA RRC\_Connected to WLAN (Event W1) | Rel-13 | C267 | UEs supporting E-UTRA and LWA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.5 | LWIP / WLAN Association Success / EUTRA RRC\_Connected to WLAN (Event W1) | Rel-13 | C274 | UEs supporting E-UTRA and LWIP | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.6 | LWIP / WLAN Release / WLAN Association / EUTRA RRC\_Connected to WLAN (Event W2) | Rel-13 | C274 | UEs supporting E-UTRA and LWIP | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.7 | LWIP / WLAN Release Success / EUTRA RRC\_Connected from WLAN (Event W3) | Rel-13 | C274 | UEs supporting E-UTRA and LWIP | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.2.5.8 | LWA / T351 Expiry | Rel-13 | C267 | UEs supporting E-UTRA and LWA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.1 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1 | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.2 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A2 | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.3 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (intra and inter-frequency measurements) | Rel-8 | C09F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  | C09T |  | pc\_eTDD |  |  |  |
| 8.3.1.3a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (intra and inter-frequency measurements) / RSRQ based measurements | Rel-9  (Note 3) | C09F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  | C09T |  | pc\_eTDD |  |  |  |
| 8.3.1.4 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra and inter-frequency measurements) | Rel-8 | C11F | UEs supporting E-UTRA and Feature Group Indicator 16 and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  | C11T |  | pc\_eTDD |  |  |  |
| 8.3.1.5 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous event A3 (intra-frequency measurements) | Rel-8 | C18 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.6 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A2 and A3 (inter-frequency measurements) | Rel-8 | C364 | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage and CE Mode A” and Feature Group Indicator 25) | pc\_eFDD |  |  |  |
|  |  |  | C365 |  | pc\_eTDD |  |  |  |
| 8.3.1.7 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Exclude-listed cells | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.8 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Handover / IE measurement configuration present | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.9 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Intra-frequency handover / IE measurement configuration not present | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  | Either TC 8.3.1.9 or TC 8.3.1.9a shall be executed.  (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.9a | Measurement configuration control and reporting / Intra Frequency measurements / Intra-frequency handover / IE measurement configuration not present / Single Frequency operation | Rel-8 | C224c | UEs supporting E-UTRA and NOT Category M1  This test is 'cells on single frequency only' equivalent of TC 8.3.1.9 | pc\_eFDD |  | Either TC 8.3.1.9 or TC 8.3.1.9a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.10 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-frequency handover / IE measurement configuration not present | Rel-8 | C28F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) | pc\_eFDD |  |  |  |
|  |  |  | C28T |  | pc\_eTDD |  |  |  |
| 8.3.1.11 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection re-establishment | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A") | pc\_eFDD |  | Either TC 8.3.1.11 or TC 8.3.1.11a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.11a | Measurement configuration control and reporting / Intra Frequency measurements / Continuation of the measurements after RRC connection re-establishment / Single Frequency operation | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”).  This test is 'cells on single frequency only' equivalent of TC 8.3.1.11 | pc\_eFDD |  | Either TC 8.3.1.11 or TC 8.3.1.11a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.12 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (inter-band measurements) | Rel-9  (Note 3) | C186F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc\_eFDD |  |  |  |
|  |  |  | C186T |  | pc\_eTDD |  |  |  |
| 8.3.1.12a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (inter-band measurements) / Between FDD and TDD | Rel-9  (Note 3) | C130 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.3.1.13 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra-frequency and inter-band measurements) | Rel-9  (Note 3) | C186F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc\_eFDD |  |  |  |
|  |  |  | C186T |  | pc\_eTDD |  |  |  |
| 8.3.1.13a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra-frequency and inter-band measurements) / Between FDD and TDD | Rel-9  (Note 3) | C130 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.3.1.14 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A2 and A3 (inter-band measurements) | Rel-9  (Note 3) | C186F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc\_eFDD |  |  |  |
|  |  |  | C186T |  | pc\_eTDD |  |  |  |
| 8.3.1.14a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A2 and A3 (inter-band measurements) / Between FDD and TDD | Rel-9  (Note 3) | C130 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.3.1.15 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-band handover / IE measurement configuration not present | Rel-9  (Note 3) | C45F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc\_eFDD |  |  |  |
|  |  |  | C45T |  | pc\_eTDD |  |  |  |
| 8.3.1.15a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-band handover / IE measurement configuration not present / Between FDD and TDD | Rel-9  (Note 3) | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.3.1.16 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection re-establishment / Inter-band | Rel-9  (Note 3) | C186F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A” and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc\_eFDD |  |  |  |
|  |  |  | C186T |  | pc\_eTDD |  |  |  |
| 8.3.1.16a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection re-establishment / Inter-band / Between FDD and TDD | Rel-9  (Note 3) | C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) |  |  |  |  |
| 8.3.1.17.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Intra-band Contiguous CA | Rel-10 | C134F | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 111 | pc\_eFDD |  |  |  |
|  |  |  | C134T |  | pc\_eTDD |  |  |  |
| 8.3.1.17.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Inter-band CA | Rel-10 | C152F | UEs supporting E-UTRA and Inter-band Carrier Aggregation and Feature Group Indicator 111 | pc\_eFDD |  |  |  |
|  |  |  | C152T |  | pc\_eTDD |  |  |  |
| 8.3.1.17.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Intra-band non-contiguous CA | Rel-11 | C134aF | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation and Feature Group Indicator 111 | pc\_eFDD |  |  |  |
|  |  |  | C134aT |  | pc\_eTDD |  |  |  |
| 8.3.1.18.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.18.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.18.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.19 | eICIC / Measurement configuration control and reporting / CSI change | Rel-10 | C154F | UEs supporting E-UTRA and Feature Group Indicator 115 | pc\_eFDD |  |  |  |
|  |  |  | C154T |  | pc\_eTDD |  |  |  |
| 8.3.1.20 | Void |  |  |  |  |  |  |  |
| 8.3.1.21 | eICIC / Measurement configuration control and reporting / Event A4 Handover / Neighbour RSRP and RSRQ measurement configuration change | Rel-10 | C154F | UEs supporting E-UTRA and Feature Group Indicator 115 | pc\_eFDD |  |  |  |
|  |  |  | C154T |  | pc\_eTDD |  |  |  |
| 8.3.1.22.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1 / Event A2 / Intra-band Contiguous CA | Rel-10 | C132 | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.22.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1 / Event A2 / Inter-band CA | Rel-10 | C151 | UEs supporting E-UTRA and Inter-band Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.3.1.22.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1/Event A2 / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |

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| 8.3.1.23 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A4 | | Rel-9  (Note 3) | | C166F | | UEs supporting E-UTRA and Feature Group Indicator 14. | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C166T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.24 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 | | Rel-9  (Note 3) | | C166F | | UEs supporting E-UTRA and Feature Group Indicator 14 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C166T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.25 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 / RSRQ based measurements | | Rel-9  (Note 3) | | C166F | | UEs supporting E-UTRA and Feature Group Indicator 14 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C166T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.26 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 (Inter-frequency measurements) | | Rel-9  (Note 3) | | C167F | | UEs supporting E-UTRA and Feature Group Indicator 14 and25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C167T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.27 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 (Inter-frequency measurements) / RSRQ based measurements | | Rel-9  (Note 3) | | C167F | | UEs supporting E-UTRA and Feature Group Indicator 14 and 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C167T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.28 | | eICIC / Measurement configuration control and reporting / Event A1 / RSRP and RSRQ measurement / Serving ABS | | Rel-10 | | C154F | | UEs supporting E-UTRA and Feature Group Indicator 115 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C154T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.29 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event C1 | | Rel-12 | | C251 | | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.30 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event C2 | | Rel-12 | | C251 | | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.31 | | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting / CSI-RSRP | | Rel-12 | | C251 | | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.1.32 | | LAA / Measurement configuration control and reporting / Intra E-UTRAN measurements / RSSI Measurement | | Rel-13 | | C279 | | UEs supporting E-UTRA and downlink LAA and RSSI measurement | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.1 | | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of GERAN cells | | Rel-8 | | C90F | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C90T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.2 | | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of GERAN cells | | Rel-8 | | C20F | | UEs supporting E-UTRA, GERAN and Feature Group Indicators 16 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C20T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.3 | | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of UTRAN cells | | Rel-8 | | C91F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C91T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.2.3a | | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of UTRAN cells / RSRQ based measurements | | Rel-9  (Note 3) | | C91F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C91T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.4 | | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of UTRAN cells | | Rel-8 | | C13F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 16 and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C13T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.2.5 | | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurements of E-UTRAN, UTRAN and GERAN cells | | Rel-8 | | C61F | | UEs supporting E-UTRA and UTRA and GERAN and Feature Group Indicator 16 and Feature Group Indicator 22 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C61T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.2.6 | | Measurement configuration control and reporting / Inter-RAT measurements / Simultaneous A2 and two B2 / Measurements of E-UTRAN, UTRAN and GERAN cells | | Rel-8 | | C17F | | UEs supporting E-UTRA and UTRAN and GERAN and Feature Group Indicator 22 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C17T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.2.7 | | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 (measurement HRPD cells) | | Rel-8 | | C92F | | UEs supporting E-UTRA and HRPD and Feature Group Indicator 26 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C92T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.8 | | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of HRPD cells | | Rel-8 | | C24F | | UEs supporting E-UTRA and HRPD and Feature Group Indicator 16 and Feature Group Indicator 26 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C24T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.9 | | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of 1xRTT cells | | Rel-8 | | C93F | | UEs supporting E-UTRA and 1xRTT and Feature Group Indicator 24 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C93T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.10 | | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of 1xRTT cells | | Rel-8 | | C25F | | UEs supporting E-UTRA and 1xRTT and Feature Group Indicator 16 and Feature Group Indicator 24 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C25T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.2.11 | | Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of UTRAN cells | | Rel-9  (Note 3) | | C168F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 15 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C168T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.3.1 | | Measurement configuration control and reporting / SON / ANR / CGI reporting of E-UTRAN cell | | Rel-8 | | C14F | | UEs supporting E-UTRA and Feature Group Indicator 5 and Feature Group Indicator 17 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C14T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.3.2 | | Measurement configuration control and reporting / SON / ANR / CGI reporting of UTRAN cell | | Rel-8 | | C39F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 5 and Feature Group Indicator 19 and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C39T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.3.3 | | Measurement configuration control and reporting / SON / ANR / CGI reporting of GERAN cell | | Rel-8 | | C40F | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 5 and Feature Group Indicator 19 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C40T | |  | | pc\_eTDD | |  | |  | |  | |
|  | |  | | Rel-9 | | C206F | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 5 and Feature Group Indicator 34 and Feature Group Indicator 23 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C206T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.3.4 | | Measurement configuration control and reporting / SON / ANR / CGI reporting of HRPD cell | | Rel-8 | | C44F | | UEs supporting E-UTRA and HRPD and Feature Group Indicator 5 and Feature Group Indicator 19 and Feature Group Indicator 26 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C44T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.3.5 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.3.4.1 | | Intra-frequency SI acquisition / CSG cell and non-CSG cell | | Rel-9 | | C80a | | UEs supporting E-UTRA and Reading the SI of the neighbouring Intra-frequency cell using autonomous gaps and reporting and allowed CSG list and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.4.2 | | Inter-frequency SI acquisition / Non-member hybrid cell | | Rel-9 | | C118F | | UEs supporting E-UTRA and allowed CSG list and Reading the SI of the neighbouring Inter-frequency cell using autonomous gaps and reporting and Feature Group Indicator 25 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C118T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.4.3 | | Inter-frequency SI acquisition / Member hybrid cell | | Rel-9 | | C118F | | UEs supporting E-UTRA and allowed CSG list and Reading the SI of the neighbouring Inter-frequency cell using autonomous gaps and reporting and Feature Group Indicator 25 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C118T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.4.4 | | Inter-RAT SI acquisition / RRC\_CONNECTED / UMTS member CSG cell | | Rel-9 | | C119F | | UEs supporting E-UTRA and UTRA and allowed CSG list and Reading the SI of the UMTS neighbouring cell using autonomous gaps and reporting and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C119T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.3.4.5 | | Inter-frequency E-UTRAN FDD - FDD / CSG Proximity Indication | | Rel-9 | | C170 | | UEs supporting FDD E-UTRA and Inter Frequency Proximity Indication and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
| 8.3.5.1 | | RRC connection reconfiguration/ QoE Measurement Collection /QoE measurement setup and report and release | | Rel-15 | | C355 | | UEs supporting E-UTRA and QoE Measurement Collection for Streaming Service | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.3.5.2 | | RRC connection reconfiguration/ Qoemtsi Measurement Collection /QoE measurement setup and report and release | | Rel-15 | | C356 | | UEs supporting E-UTRA and QoE Measurement Collection for MTSI service | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.1.1 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.1.2 | | Inter-RAT handover / From E-UTRA to UTRA PS / Data | | Rel-8 | | C36F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C36T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.1.3 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.1.4 | | Inter-RAT handover / From E-UTRA to UTRA HSDPA / Data | | Rel-8 | | C36F | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C36T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.1.5 | | Inter-RAT Handover / from E-UTRA to UTRA(HSUPA/HSDPA) / Data | | Rel-8 | | C117F | | UEs supporting E-UTRA and UTRA and HS-PDSCH and E-DPDCH and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C117T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.2.1 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.2.2 | | Inter-RAT handover / From UTRA PS to E-UTRA / Data | | Rel-8 | | C37 | | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.2.3 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.2.4 | | Inter-RAT handover / From UTRA HSPA to E-UTRA / Data | | Rel-8 | | C37 | | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.2.5 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.2.6 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.2.7.1 | | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Intra-band Contiguous CA | | Rel-10 | | C155F | | UEs supporting E-UTRA and UTRA and Intra-band Contiguous CA Carrier Aggregation and Feature Group Indicator 112 and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C155T | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.2.7.2 | | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Inter-band CA | | Rel-10 | | C155aF | | UEs supporting E-UTRA and UTRA and Inter-band Contiguous CA Carrier Aggregation and Feature Group Indicator 112 and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C155aT | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.2.7.3 | | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Intra-band non-contiguous CA | | Rel-11 | | C155bF | | UEs supporting E-UTRA and UTRA and Downlink Intra-band non-contiguous Carrier Aggregation and Feature Group Indicator 112 and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C155bT | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.4.3.1 | | Inter-RAT handover / From E-UTRA to GPRS / PS HO | | Rel-8 | | C107F | | UEs supporting E-UTRA and GERAN and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C107T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.3.2 | | Inter-RAT cell change order / From E-UTRA data RRC\_CONNECTED to GPRS / Without NACC | | Rel-8 | | C38F | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 10 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C38T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.3.3 | | Inter-RAT cell change order / From E-UTRA data to GPRS / With NACC | | Rel-8 | | C38F | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 10 and Feature Group Indicator 23 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C38T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.4.1 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.4.2 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.4.3 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.5.1 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.5.2 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.5.3 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.5.4 | | Pre-registration at HRPD and inter-RAT handover / From E-UTRA to HRPD Active / Data | | Rel-8 | | C42F | | UEs supporting E-UTRA and HRPD and Feature Group Indicator 12 and Feature Group Indicator 26 and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C42T | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.7.1 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.3 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.4 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.5 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.6 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.7 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.8 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.9 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.7.10 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.4.8.1 | | WLAN Offload / Offload Success / EUTRA RRC\_Connected to/from WLAN (Qrxlevmeas, BackhaulRateUlWLAN) | | Rel-12 | | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.8.2 | | WLAN Offload / Offload Success / EUTRA RRC\_Connected to/from WLAN (Qrxlevmeas, ChannelUtilizationWLAN) | | Rel-12 | | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.8.3 | | WLAN Offload / Offload Success / EUTRA RRC\_Connected to/from WLAN (Qqualmeas, BeaconRSSI) | | Rel-12 | | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.8.4 | | WLAN Offload / Offload Success / EUTRA RRC\_Connected to/from WLAN (Qqualmeas, BackhaulRateDlWLAN) / CA | | Rel-12 | | C225a | | UEs supporting E-UTRA with Carrier Aggregation and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.8.5 | | WLAN Offload / T350 expiry | | Rel-12 | | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.4.8.6 | | WLAN Offload / Offload Success / EUTRA RRC\_Connected to/from WLAN (ANDSF and RAN rules co-existence) | | Rel-12 | | C225 | | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.1 | | Radio link failure / RRC connection re-establishment success | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.2 | | Radio link failure / T301 expiry | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.3 | | Radio link failure / T311 expiry | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.4 | | Radio link failure / RRC connection re-establishment reject | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.5 | | Radio link failure / Radio link recovery while T310 is running | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.6 | | Radio link failure / T311 expiry / Dedicated RLF timer | | Rel-9 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.7.1 | | CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Intra-band Contiguous CA | | Rel-10 | | C132 | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.7.2 | | CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Inter-band CA | | Rel-10 | | C151 | | UEs supporting E-UTRA and Inter-band Carrier Aggregation | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.7.3 | | CA / No Radio Link Failure on SCell / RRC Connection Continues on PCell / Intra-band non-Contiguous CA | | Rel-11 | | C132a | | UEs supporting E-UTRA and Downlink Intra-band non-contiguous Carrier Aggregation | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.8.1 | | Radio link failure on PSCell / UE supports SCG DRB | | Rel-12 | | C245 | | UEs supporting E-UTRA and DC SCG DRB | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.8.2 | | Radio link failure on PSCell / UE supports Split DRB | | Rel-12 | | C244 | | UEs supporting E-UTRA and DC Split DRB | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.1.9 | | Radio link failure / RRC connection re-establishment success/ Release configured UDC | | Rel-15 | | C352 | | UEs supporting E-UTRA and the uplink data compression operation | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.2.1 | | Redirection to E-UTRAN / From UTRAN upon reception of RRC CONNECTION REJECT | | Rel-8 | | C01 | | UEs supporting E-UTRA and UTRA and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 8.5.4.1 | | UE capability transfer / Success | | Rel-8 | | R | | UEs supporting E-UTRA | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.4.2 | | Network-requested CA Band Combination Capability Signalling / Number of UE supported CA band combinations less than or equal to 128 | | Rel-11 | | C221 | | UEs supporting E-UTRA and (Intra-band contiguous Carrier Aggregation or Intra-band non-contiguous Carrier Aggregation or Inter-band Carrier Aggregation) and reception of requestedFrequencyBands and less than or equal to 128 CA band combinations. | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.4.3 | | Network-requested CA Band Combination Capability Signalling / Number of UE supported CA band combinations exceeds 128 | | Rel-11 | | C222 | | UEs supporting E-UTRA and (Intra-band contiguous Carrier Aggregation or Intra-band non-contiguous Carrier Aggregation or Inter-band Carrier Aggregation) and reception of requestedFrequencyBands and more than 128 CA band combinations. | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.4.4 | | UE Capability Transfer/ Success/ UE Cat 0/ UE Paging Info | | Rel-12 | | C224 | | UEs supporting E-UTRA and UE Category 0 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.5.1 | | RACS / UL Message Segment transfer / UECapabilityInformation / Success | | Rel-16 | | C405 | | UEs supporting E-UTRA and RRC message Segmentation in the UL | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.5.2 | | RRC resume / DL segment transfer | | Rel-16 | | C236 | | UEs supporting E-UTRA and reception of segmented DL RRC messages | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.5.6.1 | | eMTC / NTN / Ephemeris information update / T317 Expiry / T318 Expiry | | Rel-17 | | C414 | | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in GSO or NGSO scenario in CE Mode A | | pc\_eFDD | |  | | Note 22 | |  | |
| 8.6.1.1 | | Immediate MDT / Reporting / Location information | | Rel-10 | | C147 | | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.1.2 | | Immediate MDT / Reporting / Location information / Request from eNB / Event A2 | | Rel-11 | | C147 | | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.1.3 | | Immediate MDT / Measurement / Latency metrics for UL PDCP Packet Delay per QCI | | Rel-13 | | C282 | | UEs supporting E-UTRA and PDCP Packet Delay per QCI | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.1.4 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.6.1.5 | | Void | |  | |  | |  | |  | |  | |  | |  | |
| 8.6.2.1 | | Logged MDT / Intra-frequency measurement, logging and reporting | | Rel-10 | | C137 | | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.2.2 | | Logged MDT / Inter-frequency measurement, logging and reporting | | Rel-10 | | C137 | | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.2.3 | | Logged MDT / Logging and reporting / Limiting area scope | | Rel-10 | | C137 | | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.2.3a | | Logged MDT / Logging and reporting / Limiting area scope / TAC list with PLMN identity | | Rel-11 | | C137 | | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |
| 8.6.2.4 | | Logged MDT / Logging and reporting / Indication of logged measurements at E-UTRA handover | | Rel-10 | | C137 | | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | |  | | pc\_eTDD | |  | |  | |  | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8.6.2.5 | Logged MDT / Logging and reporting / Indication of logged measurements at E-UTRA re-establishment | Rel-10 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.6 | Logged MDT / Release of logged MDT measurement configuration / Expire of duration timer | Rel-10 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.7 | Logged MDT / Release of logged MDT measurement configuration / Reception of new logged measurement configuration, Detach or UE power off | Rel-10 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.8 | Logged MDT / Maintaining logged measurement configuration / UE state transitions and mobility | Rel-10 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.9 | Logged MDT / Location information | Rel-10 | C203a | UEs supporting E-UTRA and measurements in RRC\_IDLE and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc\_eTDD |  |  |  |
|  |  |  |  |  | pc\_eFDD |  |  |  |
| 8.6.2.10 | Logged MDT / Logging and reporting / Reporting at RRC connection establishment / PLMN list | Rel-11 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.11 | Logged MDT / Logging and reporting / Reporting at intra LTE handover / PLMN list | Rel-11 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.12 | Logged MDT / Logging and reporting / Reporting at RRC connection re-establishment / PLMN list | Rel-11 | C137 | UEs supporting E-UTRA and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.2.13 | Void |  |  |  |  |  |  |  |
| 8.6.2.14 | Void |  |  |  |  |  |  |  |
| 8.6.2.15 | Void |  |  |  |  |  |  |  |
| 8.6.3.1 | Logged MDT / UTRAN Inter-RAT measurement, logging and reporting | Rel-10 | C138 | UEs supporting E-UTRA and UTRA and logged measurements in RRC\_IDLE and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.3.2 | Logged MDT / GERAN Inter-RAT measurement, logging and reporting | Rel-10 | C163 | UEs supporting E-UTRA and GSM and logged measurements in RRC\_IDLE and inter-RAT PS handover to E-UTRA from GSM and NOT Category M1 | pc\_eFDD |  |  | Rel-8 GERAN |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-8 GERAN |
| 8.6.3.3 | Logged MDT / CDMA2000 Inter-RAT measurement, logging and reporting | Rel-10 | C165 | UEs supporting E-UTRA and HRPD and logged measurements in RRC\_IDLE and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.3.4 | Logged MDT / Logging and reporting / Reporting at UTRAN Inter-RAT handover / PLMN list | Rel-11 | C138 | UEs supporting E-UTRA and UTRA and logged measurements in RRC\_IDLE and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.3.5 | Logged MDT / Logging and reporting / Bluetooth measurement collection | Rel-15 | C358 | UEs supporting E-UTRA and Blluetooth Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.3.6 | Logged MDT / Logging and reporting / WLAN measurement collection | Rel-15 | C359 | UEs supporting E-UTRA and WLAN Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.1 | Radio Link Failure logging / Reporting of Intra-frequency measurements | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.2 | Radio Link Failure logging / Reporting of Inter-frequency measurements | Rel-10 | C10F | UEs supporting E-UTRA and Feature Group Indicator 25 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C10T |  | pc\_eTDD |  |  |  |
| 8.6.4.3 | Radio Link Failure logging / Reporting at RRC connection establishment and reestablishment | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.4 | Radio Link Failure logging / Reporting at E-UTRA handover | Rel-10 | C184 | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.5 | Radio Link Failure logging / Reporting of ECGI of the PCell | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.6 | Void |  |  |  |  |  |  |  |
| 8.6.4.7 | Radio Link Failure logging / Location information | Rel-10 | C147 | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc\_eTDD |  |  |  |
|  |  |  |  |  | pc\_eFDD |  |  |  |
| 8.6.4.8 | Radio Link Failure logging / Logging and reporting / Reporting at RRC connection establishment / PLMN list | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.9 | Radio Link Failure logging / Logging and reporting / Reporting at intra LTE handover / PLMN list | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.10 | Radio Link Failure logging / Logging and reporting / Reporting at RRC connection re-establishment / PLMN list | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.11 | Radio Link Failure logging / Logging and reporting / Dropped QCI | Rel-13 | C270 | UEs supporting E-UTRA and QCI1 indication in Radio Link Failure Report | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.4.12 | Void |  |  |  |  |  |  |  |
| 8.6.4.13 | Void |  |  |  |  |  |  |  |
| 8.6.5.1 | Radio Link Failure logging / Reporting at UTRAN Inter-RAT handover | Rel-10 | C146 | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.5.1a | Radio Link Failure logging / Reporting at UTRAN Inter-RAT handover / PLMN list | Rel-11 | C205 | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and Radio Link Failure Report for inter-RAT MRO and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.5.2 | Radio Link Failure logging / Reporting at GERAN Inter-RAT handover | Rel-10 | C148F | UEs supporting E-UTRA and Feature Group Indicator 23 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 GERAN |
|  |  |  | C148T |  | pc\_eTDD |  |  | Rel-8 GERAN |
| 8.6.5.3 | Radio Link Failure logging / Reporting CDMA2000 neighbour cell information | Rel-10 | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.5.4 | Void |  |  |  |  |  |  |  |
| 8.6.5.5 | Radio Link Failure logging / Logging and reporting /Bluetooth measurement collection | Rel-15 | C358 | UEs supporting E-UTRA and Blluetooth Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.5.6 | Radio Link Failure logging / Logging and reporting / WLAN measurement collection | Rel-15 | C359 | UEs supporting E-UTRA and WLAN Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.6.1 | Handover Failure logging / Reporting of Intra-frequency measurements | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.6.2 | Handover Failure logging / Reporting of Inter-frequency measurements | Rel-10 | C21F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C21T |  | pc\_eTDD |  |  |  |
| 8.6.6.3 | Void |  |  |  |  |  |  |  |
| 8.6.6.4 | Handover Failure logging / Location information | Rel-10 | C147 | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc\_eTDD |  |  |  |
|  |  |  |  |  | pc\_eFDD |  |  |  |
| 8.6.6.5 | Handover Failure logging / Logging and reporting / Reporting at RRC connection establishment / PLMN list | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.6.6 | Handover Failure logging / Logging and reporting / Reporting at intra LTE handover / PLMN list | Rel-11 | C21F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C21T |  | pc\_eTDD |  |  |  |
| 8.6.6.7 | Handover Failure logging / Logging and reporting / Reporting at RRC connection re-establishment / PLMN list | Rel-11 | C10F | UEs supporting E-UTRA and Feature Group Indicator 25 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C10T |  | pc\_eTDD |  |  |  |
| 8.6.7.1 | Handover Failure logging / Reporting of UTRAN Inter-RAT measurements | Rel-10 | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.7.2 | Handover Failure logging / Reporting of GERAN Inter-RAT measurements | Rel-10 | C90F | UEs supporting E-UTRA and GERAN and Feature Group Indicator 23 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 GERAN |
|  |  |  | C90T |  | pc\_eTDD |  |  | Rel-8 GERAN |
| 8.6.7.3 | Handover Failure logging / Reporting of CDMA2000 Inter-RAT measurements | Rel-10 | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.7.4 | Handover Failure logging / Reporting at UTRAN Inter-RAT handover / PLMN list | Rel-11 | C37 | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.8.1 | Connection Establishment Failure logging / Logging and reporting / T300 expiry | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.8.2 | Connection Establishment Failure logging / Logging and reporting / Reporting at intra-LTE handover | Rel-11 | C21F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  | C21T |  | pc\_eTDD |  |  |  |
| 8.6.8.3 | Connection Establishment Failure logging / Logging and reporting / Reporting at RRC connection re-establishment | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.8.4 | Connection Establishment Failure logging / Logging and reporting / Location Information | Rel-11 | C147 | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.8.5 | Connection Establishment Failure logging / Logging and reporting / Reporting of Intra-frequency measurements | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.8.6 | Connection Establishment Failure logging / Logging and reporting / Reporting of Inter-frequency measurements | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.8.7 | Void |  |  |  |  |  |  |  |
| 8.6.8.8 | Void |  |  |  |  |  |  |  |
| 8.6.9.1 | Connection Establishment Failure logging / Logging and reporting / Reporting at UTRAN Inter-RAT handover | Rel-11 | C37 | UEs supporting E-UTRA and UTRA and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.9.2 | Connection Establishment Failure logging / Logging and reporting / Reporting of UTRAN Inter-RAT measurements | Rel-11 | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.9.3 | Connection Establishment Failure logging / Logging and reporting / Reporting of GERAN Inter-RAT measurements | Rel-11 | C05 | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc\_eFDD |  |  | Rel-8 GERAN |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-8 GERAN |
| 8.6.9.4 | Connection Establishment Failure logging / Logging and reporting / Reporting of CDMA2000 Inter-RAT measurements | Rel-11 | C06 | UEs supporting E-UTRA and HRPD and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.9.5 | Connection Establishment Failure logging / Logging and reporting / Bluetooth measurement collection | Rel-15 | C358 | UEs supporting E-UTRA and Blluetooth Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.9.6 | Connection Establishment Failure logging / Logging and reporting / WLAN measurement collection | Rel-15 | C359 | UEs supporting E-UTRA and WLAN Measurement Collection in logged MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.10.1 | Inter-RAT Immediate MDT / Reporting / Location information / Event B2 | Rel-11 | C180 | UEs supporting E-UTRA and UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc\_eFDD |  |  | Rel-8 UTRA FDD |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 8.6.10.2 | Inter-RAT Immediate MDT / Reporting /Bluetooth measurement collection | Rel-15 | C360 | UEs supporting E-UTRA and Blluetooth Measurement Collection in Immediate MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.10.3 | Inter-RAT Immediate MDT / Reporting /WLAN measurement collection | Rel-15 | C361 | UEs supporting E-UTRA and WLAN Measurement Collection in Immediate MDT | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.6.11.1 | RACH Optimisation | Rel-11  (Note 7) | C181 | UEs supporting E-UTRA and delivery of rachReport upon request from the network and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.7.1 | Inter-RAT / UTRAN ANR measurement, logging and reporting / E-UTRAN cell | Rel-10 | C145 | UEs supporting E-UTRA and supporting UTRAN ANR and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.1 | Aerial UE / UE has flight path information available / UE information | Rel-15 | C370 | UEs supporting E-UTRA and flight path plan reporting | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.2 | Aerial UE / Measurement configuration control and reporting / Event H1 | Rel-15 | C368 | UEs supporting E-UTRA and height-based measurement reporting and using GNSS for height measurement | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.3 | Aerial UE / Measurement configuration control and reporting / Event H2 | Rel-15 | C368 | UEs supporting E-UTRA and height-based measurement reporting and using GNSS for height measurement | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.4 | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A3 | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggered based on number of cells | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.4a | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A3 (Inter-frequency measurement) | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.5 | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A4 | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.5a | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A4 (Inter-frequency measurements) | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 8.9.6 | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A5 | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **9** | **EPS mobility management** |  |  |  |  |  |  |  |
| 9.1.1.1 | Void |  |  |  |  |  |  |  |
| 9.1.1.2 | Void |  |  |  |  |  |  |  |
| 9.1.2.1 | Void |  |  |  |  |  |  |  |
| 9.1.2.2 | Void |  |  |  |  |  |  |  |
| 9.1.2.3 | Authentication not accepted by the network/ GUTI used / Authentication reject and re-authentication | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.2.4 | Authentication not accepted by the UE / MAC code failure | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.2.5 | Authentication not accepted by the UE / SQN failure | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.2.6 | Abnormal cases / Network failing the authentication check | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.2.7 | Authentication not accepted by the UE/ non-EPS authentication unacceptable | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.3.1 | NAS security mode command accepted by the UE | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.3.2 | NAS security mode command not accepted by the UE | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.3.3 | No emergency bearer service / NAS security mode command with EIA0 not accepted by the UE | Rel-9 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.4.1 | Void |  |  |  |  |  |  |  |
| 9.1.4.2 | Identification procedure / IMEI / IMEISV requested | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.5.1 | EMM information procedure | Rel-8 | C51 | UEs supporting E-UTRA and supporting the EMM information message | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.1.5.2 | EMM information procedure not supported by the UE | Rel-8 | C46 | UEs supporting E-UTRA and does not support the EMM information message | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.1 | Attach / Success / Valid GUTI | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.1a | Attach Procedure / Success / Last visited TAI, TAI list and equivalent PLMN list handling | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  | Either TC 9.2.1.1.1a or TC 9.2.1.1.1b shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.1b | Attach Procedure / Success / Last visited TAI, TAI list and equivalent PLMN list handling / Single Frequency operation | Rel-8 | R | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.1a | pc\_eFDD |  | Either TC 9.2.1.1.1a or TC 9.2.1.1.1b shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.2 | Attach Procedure / Success / With IMSI / GUTI reallocation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.2a | Attach Procedure / AttachWithIMSI configured / Selected PLMN is neither the registered PLMN nor in the list of equivalent PLMNs / Success | Rel-10 | C173 | UEs supporting E-UTRA and AttachWithIMSI | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.3 | Attach Procedure / Success / Request for obtaining the IPv6 address of the home agent | Rel-8 | C68 | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to request the IPv6 address of the Home Agent during Attach procedure and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.4 | Attach Procedure / Success / Request for obtaining the IPv4 address of the home agent | Rel-8 | C69 | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to request the IPv4 address of the Home Agent during Attach procedure and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.5 | Void |  |  |  |  |  |  |  |
| 9.2.1.1.6 | Void |  |  |  |  |  |  |  |
| 9.2.1.1.7 | Attach Procedure / Success / List of equivalent PLMNs in the ATTACH ACCEPT message | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  | Either TC 9.2.1.1.7 or TC 9.2.1.1.7a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.7a | Attach Procedure / Success / List of equivalent PLMNs in the ATTACH ACCEPT message / Single Frequency operation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  | Either TC 9.2.1.1.7 or TC 9.2.1.1.7a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.7b | Attach / Success / native GUMMEI | Rel-10 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.7c | Attach / Success / PSM | Rel-12  (Note 17) | C247 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) and Power Saving Mode | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.7d | Attach / Success / DCN | Rel-14 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 9.2.1.1.8 | Void |  |  |  |  |  |  |  |
| 9.2.1.1.9 | Attach / Rejected / IMSI invalid | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.10 | Attach / Rejected / Illegal ME | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.11 | Attach / Rejected / EPS services and non-EPS services not allowed | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested, px\_SinglePLMN\_Tested | 1 Execution (Note 1) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.1.12 | Attach / Rejected / EPS services not allowed | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested, px\_SinglePLMN\_Tested | 1 Execution (Note 1) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.1.13 | Attach / Rejected / PLMN not allowed | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  | Either TC 9.2.1.1.13 or TC 9.2.1.1.13a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.13a | Attach / Rejected / PLMN not allowed / Single Frequency operation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.13 | pc\_eFDD |  | Either TC 9.2.1.1.13 or TC 9.2.1.1.13a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.14 | Attach / Rejected / Tracking area not allowed | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.15 | Attach / Rejected / Roaming not allowed in this tracking area | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  | Either TC 9.2.1.1.15 or TC 9.2.1.1.15a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.15a | Attach / Rejected / Roaming not allowed in this tracking area / Single Frequency operation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.15 | pc\_eFDD |  | Either TC 9.2.1.1.15 or TC 9.2.1.1.15a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.16 | Attach / Rejected / EPS services not allowed in this PLMN | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  | Either TC 9.2.1.1.16 or TC 9.2.1.1.16a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.16a | Attach / Rejected / EPS services not allowed in this PLMN / Single Frequency operation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.16 | pc\_eFDD |  | Either TC 9.2.1.1.16 or TC 9.2.1.1.16a shall be executed. (Note 4) |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.17 | Attach / Rejected / No suitable cells in tracking area | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.18 | Attach / Rejected / Not authorized for this CSG | Rel-8 | C286 | UEs supporting E-UTRA and allowed CSG list and EPS attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.19 | Attach / Abnormal case / Failure due to non integrity protection | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.20 | Attach / Abnormal case / Access barred because of access class barring or NAS signalling connection establishment rejected by the network | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.21 | Void |  |  |  |  |  |  |  |
| 9.2.1.1.22 | Attach / Abnormal case / Unsuccessful attach after 5 attempts | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.23 | Attach / Abnormal case / Repeated rejects for network failures | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.24 | Attach / Abnormal case / Change of cell into a new tracking area | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.25 | Attach / Abnormal case / Mobile originated detach required | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.26 | Attach / Abnormal case / Detach procedure collision | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.27 | Attach / Abnormal case / Network reject with Extended Wait Timer | Rel-10 | C250 | UEs supporting E-UTRA and LAP and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.27a | Attach Procedure / EAB broadcast handling / ExtendedAccessBarring configured in the UE | Rel-11 | C261 | UEs supporting E-UTRA and EAB and LAP and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.27b | Attach / EAB / CE-level based access barring | Rel-15 | C386 | UEs supporting E-UTRA and EAB and EPS attach (with or without pre-configuration) and (CE mode A or CE mode B) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.28 | Attach / Success / IMS | Rel-8 | C210 | UEs supporting E-UTRA and VoLTE in GSMA | pc\_eFDD |  |  |  |
|  |  |  |  | PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured with IMS APN as default APN or to provide IMS APN. | pc\_eTDD |  |  |  |
| 9.2.1.1.28a | Attach / Success / IMS / Second PDN | Rel-8 | C211 | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured to provide IMS APN as the second PDN connection. | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.28b | Attach / Success / IMS / New P-CSCF Discovery using PCO | Rel-8 | C210 | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured with IMS APN as default APN or to provide IMS APN. | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.29 | Attach / Rejected / IMEI not accepted | Rel-9 | C366 | UEs supporting E-UTRA and IMS emergency call and no USIM test execution | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.30 | Void |  |  |  |  |  |  |  |
| 9.2.1.1.31 | Attach / Success / Extended and spare fields in UE Network Capability | Rel-8 to Rel-12 only | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
| 9.2.1.1.32 | Attach / Success / MUSIM | Rel-17 | C411 | UEs supporting E-UTRA and EPS attach and Multi-SIM features | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.33 | Attach / Success / MUSIM / IMSI offset | Rel-17 | C411 | UEs supporting E-UTRA and EPS attach and Multi-SIM features | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.1.34 | eMTC / NTN / GNSS position reporting / reject cause #78 "PLMN not allowed to operate at the present UE location" | Rel-17 | C414a | UEs supporting E-UTRA and (Category M1 or Category M2) and (NTN access or NTN only access in CE Mode A) and NTN features in NGSO scenario in CE Mode A | pc\_eFDD |  |  |  |
| 9.2.1.2.1 | Combined attach procedure / Success / EPS and non-EPS services | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.1b | Combined attach procedure / Success / SMS only | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and combined EPS/IMSI attach and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 or 2 Executions (Note 2 AND Note 6) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.1c | Combined attach procedure / Success / EPS and CS Fallback not preferred | Rel-8 | C86a | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without pre-configuration) and CS fallback and configured to CS/PS mode 1 (voice centric) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.1d | Combined attach procedure / Success / EPS and CS Fallback not preferred/data centric UE | Rel-8 | C87b | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without pre-configuration) and CS fallback (and implicitly SMSoverSGs) and configured to CS/PS mode 2 (data centric) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.2 | Combined attach procedure / Success / EPS services only / IMSI unknown in HSS | Rel-8 | C02 | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.3 | Successful combined attach procedure / EPS service only / MSC temporarily not reachable | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.4 | Successful combined attach procedure / EPS service only / CS domain not available | Rel-8 | C125 | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and (CS/PS Mode 2 or CS/PS Mode 1 with IMS Voice Support) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.4a | Successful combined attach procedure / EPS service only / Congestion | Rel-11 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.5 | Combined attach / Rejected / IMSI invalid | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.6 | Combined attach / Rejected / Illegal ME | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.7 | Combined attach / Rejected / EPS services and non-EPS services not allowed | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.8 | Combined attach / Rejected / EPS services not allowed | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.9 | Combined attach / Rejected / PLMN not allowed | Rel-8 | C128 | UEs supporting E-UTRA and UTRAN or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.10 | Combined attach / Rejected / Tracking area not allowed | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.11 | Combined attach / Rejected / Roaming not allowed in this tracking area | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.12 | Combined attach / Rejected / EPS services not allowed in this PLMN | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.13 | Combined attach / Rejected / No suitable cells in tracking area | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.1.2.14 | Combined attach / Rejected / Not authorized for this CSG | Rel-8 | C123 | UEs supporting E-UTRA and allowed CSG list and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.1.2.15 | Combined attach / Abnormal case / Handling of the EPS attach attempt counter | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.2.1.1 | UE initiated detach / UE switched off | Rel-8 | C53 | UEs supporting E-UTRA and switch on/off | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.1.2 | UE initiated detach / USIM removed from the UE | Rel-8 | C03 | UEs supporting E-UTRA and USIM removal without power down | pc\_eFDD, pc\_USIM\_Removal |  |  |  |
|  |  |  |  |  | pc\_eTDD, pc\_USIM\_Removal |  |  |  |
| 9.2.2.1.3 | UE initiated detach / EPS capability of the UE is disabled | Rel-8 | C153 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and disabling the EPS services and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN pc\_EPS\_Disable, pc\_Dynamic\_GERAN\_Rel\_downgrade | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD. pc\_UTRA, pc\_GERAN pc\_EPS\_Disable |  |  | Rel-9 UTRA TDD |
| 9.2.2.1.4 | UE initiated detach / detach for non-EPS services | Rel-8 | C106 | UEs supporting E-UTRA and detach for non-EPS services, and combined EPS/IMSI attach | pc\_eFDD, pc\_IMSI\_Detach |  |  |  |
|  |  |  |  |  | pc\_eTDD, pc\_IMSI\_Detach |  |  |  |
| 9.2.2.1.5 | Void |  |  |  |  |  |  |  |
| 9.2.2.1.6 | UE initiated detach / Abnormal case / Local detach after 5 attempts due to no network response | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.1.7 | UE initiated detach / Abnormal case / Detach procedure collision | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD, pc\_Re\_Attach\_AfterDetachColl |  |  |  |
|  |  |  |  |  | pc\_eTDD, pc\_Re\_Attach\_AfterDetachColl |  |  |  |
| 9.2.2.1.8 | UE initiated detach / Abnormal case / Detach and EMM common procedure collision | Rel-8 | C53 | UEs supporting E-UTRA and switch on/off | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.1.9 | UE initiated detach / Abnormal case / Change of cell into a new tracking area | Rel-8 | C12 | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.1.10 | UE initiated detach / Mapped security context | Rel-8 | C01 | UEs supporting E-UTRA and UTRA and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  | Rel-9 UTRA TDD |
| 9.2.2.2.1 | NW initiated detach / Re-attach required | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.2.2 | NW initiated detach / IMSI detach | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.2.2.3 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.4 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.5 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.6 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.7 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.8 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.9 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.10 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.11 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.12 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.13 | Void |  |  |  |  |  |  |  |
| 9.2.2.2.14 | NW initiated detach / Abnormal case / EMM cause not included | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.1 | Normal tracking area update / Accepted | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.1a | Normal tracking area update / Accepted / PSM | Rel-12  (Note 17) | C247 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) and Power Saving Mode | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.1b | Normal tracking area update / Accepted / DCN | Rel-14 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 9.2.3.1.2 | Void |  |  |  |  |  |  |  |
| 9.2.3.1.3 | Void |  |  |  |  |  |  |  |
| 9.2.3.1.4 | Normal tracking area update / List of equivalent PLMNs in the TRACKING AREA UPDATE ACCEPT message | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.5 | Periodic tracking area update / Accepted | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.5a | Periodic tracking area update / Accepted / Per-device timer | Rel-10 | C174 | UEs supporting E-UTRA and T3412 Extended IE | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.5b | Periodic tracking area update / Accepted / PSM / T3412 Extended Value | Rel-12  (Note 17) | C247 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) and Power Saving Mode | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.6 | Normal tracking area update / UE with ISR active moves to E-UTRAN | Rel-8 | C27 | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, ISR and NOT Category M1 | pc\_eFDD, pc\_UTRA, pc\_GERAN | px\_RATComb\_Tested | 1 Execution (Note 2) |  |
|  |  |  |  |  | pc\_eTDD, pc\_UTRA, pc\_GERAN |  |  | Rel-9 UTRA TDD |
| 9.2.3.1.7 | Void |  |  |  |  |  |  |  |
| 9.2.3.1.8 | UE receives an indication that the RRC connection was released with cause "load balancing TAU required" | Rel-8 | R | UEs supporting E-UTRA | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.8a | Normal tracking area update / low priority override | Rel-11 | C195 | UEs supporting E-UTRA and LAP and LAP override and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.8b | Normal tracking area update / EAB broadcast handling / ExtendedAccessBarring configured in the UE / ExtendedAccessBarring and Override\_ExtendedAccessBarring configured in the UE | Rel-11 | C197 | UEs supporting E-UTRA and EAB and EAB override and LAP and EPS attach (with or without pre-configuration) | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 9.2.3.1.9 | Normal tracking area update / Correct handling of CSG list | Rel-8 | C143 | UEs supporting E-UTRA and allowed CSG list and manual CSG selection and EPS attach and NOT Category M1 | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9.2.3.1.9a | | Normal tracking area update / NAS signalling connection recovery | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.10 | | Normal tracking area update / Rejected / IMSI invalid | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested, px\_SinglePLMN\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.11 | | Normal tracking area update / Rejected / Illegal ME | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.12 | | Normal tracking area update / Rejected / EPS service not allowed | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.13 | | Normal tracking area update / Rejected / UE identity cannot be derived by the network | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.14 | | Normal tracking area update / Rejected / UE implicitly detached | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.15 | | Normal tracking area update / Rejected / PLMN not allowed | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) Either TC 9.2.3.1.15 or TC 9.2.3.1.15a shall be executed. (Note 4) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.15a | | Normal tracking area update / Rejected / PLMN not allowed / Single Frequency operation | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.3.1.15 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) Either TC 9.2.3.1.15 or TC 9.2.3.1.15a shall be executed. (Note 4) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.16 | | Normal tracking area update / Rejected / Tracking area not allowed | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.17 | | Normal tracking area update / Rejected / Roaming not allowed in this tracking area | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested, px\_SinglePLMN\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.18 | | Normal tracking area update / Rejected / EPS services not allowed in this PLMN | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) Either TC 9.2.3.1.18 or TC 9.2.3.1.18a shall be executed. (Note 4) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.18a | | Normal tracking area update / Rejected / EPS services not allowed in this PLMN / Single Frequency operation | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.3.1.18 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 1) Either TC 9.2.3.1.18 or TC 9.2.3.1.18a shall be executed. (Note 4) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.1.19 | | Normal tracking area update / Rejected / No suitable cells in tracking area | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.20 | | Normal tracking area update / Rejected / Not authorized for this CSG | | Rel-8 | | C47 | | | UEs supporting E-UTRA and EPS attach (with or without configuration) and allowed CSG list | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.20a | | Normal tracking area update / Rejected / Congestion | | Rel-10 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.21 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.2.3.1.22 | | Normal tracking area update / Abnormal case / access barred due to access class control or NAS signalling connection establishment rejected by the network | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.23 | | Normal tracking area update / Abnormal case / Success after several attempts due to no network response / TA belongs to TAI list and status is UPDATED / TA does not belong to TAI list or status is not UPDATED | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | | |
| 9.2.3.1.24 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.2.3.1.25 | | Normal tracking area update / Abnormal case / Failure after 5 attempts due to no network response | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.26 | | Normal tracking area update / Abnormal case / TRACKING AREA UPDATE REJECT | | Rel-8 | | C04 | | | UEs supporting E-UTRA and EPS attach (with or without configuration) | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.27 | | Normal tracking area update / Abnormal case / Change of cell into a new tracking area | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.28 | | Normal tracking area update / Abnormal case / Tracking area updating and detach procedure collision | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.29 | | Normal Tracking Area Update / Accepted / MUSIM | | Rel-17 | | C411 | | | UEs supporting E-UTRA and EPS attach and Multi-SIM features | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.30 | | Normal Tracking Area Update / Accepted / MUSIM / NAS signalling connection release | | Rel-17 | | C417 | | | UEs supporting E-UTRA and EPS attach and Multi-SIM NAS signalling connection release | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.1.31 | | Normal Tracking Area Update / Accepted / MUSIM / IMSI offset | | Rel-17 | | C411 | | | UEs supporting E-UTRA and EPS attach and Multi-SIM features | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.1 | | Combined tracking area update / Successful | | Rel-8 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.1a | | Combined tracking area update / Successful / Check of last visited TAI and handling of TAI list, LAI and TMSI | | Rel-8 | | C121 | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.1b | | Combined tracking area update / Success / SMS only | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and combined EPS/IMSI attach and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 or 2 Executions (Note 2 AND Note 6) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.1c | | Combined tracking area update / Success / CS Fallback not preferred | | Rel-8 | | C287 | | | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without pre-configuration) and CS fallback (and implicitly SMSoverSGs) and configured to CS/PS Mode 2 (data centric) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.2 | | Combined tracking area update / Successful for EPS services only / IMSI unknown in HSS | | Rel-8 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.3 | | Combined tracking area update / Successful for EPS services only / MSC temporarily not reachable | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 or 2 Executions (Note 2 AND Note 6) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.4 | | Combined tracking area update / Successful for EPS services only / CS domain not available | | Rel-8 | | C125 | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and (CS/PS Mode 2 or CS/PS Mode 1 with IMS Voice Support and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.4a | | Combined tracking area update / Successful for EPS services only / Congestion | | Rel-11 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.5 | | Combined tracking area update / Rejected / IMSI invalid | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.6 | | Combined tracking area update / Rejected / Illegal ME | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.7 | | Combined tracking area update / Rejected / EPS services and non-EPS services not allowed | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.8 | | Combined tracking area update / Rejected / EPS services not allowed | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2 AND Note 5) | |  | | | |
|  | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.9 | | Combined tracking area update / Rejected / UE identity cannot be derived by the network | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.10 | | Combined tracking area update / Rejected / UE implicitly detached | | Rel-8 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.11 | | Combined tracking area update / Rejected / PLMN not allowed | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.12 | | Combined tracking area update / Rejected / Tracking area not allowed | | Rel-8 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.13 | | Combined tracking area update / Rejected / Roaming not allowed in this tracking area | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2), | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.14 | | Combined tracking area update / Rejected / EPS services not allowed in the PLMN | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.2.15 | | Combined tracking area update / Rejected / No suitable cells in tracking area | | Rel-8 | | C02a | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.16 | | Combined tracking area update / Rejected / Not authorized for this CSG | | Rel-8 | | C123 | | | UEs supporting E-UTRA and allowed CSG list and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.2.17 | | Combined tracking area update / Abnormal case / handling of the EPS tracking area updating attempt counter | | Rel-8 | | C141 | | | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without pre-configuration) and CS/PS Mode 2 (data centric) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.3.3.1 | | First Iu mode to S1 mode inter-system change after attach | | Rel-8 | | C01 | | | UEs supporting E-UTRA and UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.2 | | Iu mode to S1 mode intersystem change / ISR is active / Expiry of T3312 in E-UTRAN or T3412 in UTRAN and further intersystem change | | Rel-8 | | C59 | | | UEs supporting E-UTRAN and UTRA and ISR and NOT Category M1 | | | pc\_eFDD | |  | | 1 Execution (Note 5) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.3 | | Iu mode to S1 mode intersystem change / Periodic TAU and RAU/ ISR activated, T3423 expired | | Rel-8 | | C59 | | | UEs supporting E-UTRAN and UTRA and ISR and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.4 | | First S1 mode to Iu mode inter-system change after attach | | Rel-8 | | C01 | | | UEs supporting E-UTRA and UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.5 | | Periodic routing area update | | Rel-8 | | C27 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and, ISR and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.5a | | Periodic Location Update | | Rel-8 | | C128 | | | UEs supporting E-UTRA and UTRA or/and E-UTRA and GERAN, and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1 | | | pc\_eFDD, pc\_UTRA, pc\_GERAN | | px\_RATComb\_Tested | | 1 Execution (Note 2) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_UTRA, pc\_GERAN | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.2.3.3.6 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.2.3.4.1 | | TAU/RAU procedure for inter-system cell reselection between A/Gb and S1 modes | | Rel-8 | | C05 | | | UEs supporting E-UTRA and GERAN and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.4.1.1 | | Attach & Normal tracking area update Procedure / Success / without Idle eDRX parameters / With Idle eDRX parameters | | Rel-13 | | C262 | | | UEs supporting E-UTRA and Extended DRX | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.4.1.2 | | Attach & Normal tracking area update Procedure / Success / With and without Idle eDRX and PSM parameters | | Rel-13 | | C253 | | | UEs supporting E-UTRA and Extended DRX and Power Saving Mode | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.4.1.3 | | Attach & Normal tracking area Procedure / Success / Emergency Calls/ without Idle eDRX parameters / With Idle eDRX parameters | | Rel-13 | | C263 | | | UEs supporting E-UTRA and Extended DRX and IMS emergency call | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.2.5.1 | | RACS / Network assigned UE radio capability ID | | Rel-16 | | | C408 | | | UEs supporting E-UTRA and RACS | | pc\_eFDD | |  | |  | |  | | | |
| pc\_eTDD | |  | |  | |  | | | |
| 9.2.5.2 | | RACS / USIM change / Handling of URCID | | Rel-16 | | | C408 | | | UEs supporting E-UTRA and RACS | | pc\_eFDD | |  | |  | |  | | | |
| pc\_eTDD | |  | |  | |  | | | |
| 9.2.5.3 | | RACS / Handling of delete indication for NW assigned UE radio capability ID | | Rel-16 | | | C408 | | | UEs supporting E-UTRA and RACS | | pc\_eFDD | |  | |  | |  | | | |
| pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.1 | | Service request initiated by UE for user data | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.2 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.3 | | Service request / Mobile originating CS fallback | | Rel-8 | | C26 | | | UEs supporting E-UTRA and CS fallback and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.4 | | Service request / Rejected / IMSI invalid | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | | px\_RATComb\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.3.1.5 | | Service request / Rejected / Illegal ME | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | | px\_RATComb\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.3.1.6 | | Service request / Rejected / EPS services not allowed | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | | px\_RATComb\_Tested | | 1 Execution (Note 1) | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | | | |
| 9.3.1.7 | | Service request / Rejected / UE identity cannot be derived by the network | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.7a | | Service request / Rejected / UE implicitly detached | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.8 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.9 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.10 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.11 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.12 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.12a | | Extended service request / Rejected / CS domain temporarily not available | | Rel-8 | | C26 | | | UEs supporting E-UTRA and CS fallback and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | | | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | | | |
| 9.3.1.13 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.14 | | Void | |  | |  | | |  | | |  | |  | |  | |  | | | |
| 9.3.1.15 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 9.3.1.16 | | Service request / Abnormal case / Switch off | | Rel-8 | | C283 | | | UEs supporting E-UTRA and switch on/off and NOT supporting IMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.1.17 | | Service request / Abnormal case / Procedure collision | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.1.18 | | Service request / Rejected / Not authorized for this CSG | | Rel-8 | | C156 | | | UEs supporting E-UTRA and allowed CSG list and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.1.19 | | Service Request / MUSIM / NAS signalling connection release | | Rel-17 | | C417 | | | UEs supporting E-UTRA and EPS attach and Multi-SIM NAS signalling connection release | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.1.20 | | Service Request / MUSIM / Rejection of paging | | Rel-17 | | C418 | | | UEs supporting E-UTRA and EPS attach and Multi-SIM Reject paging request | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.2.1 | | Paging procedure | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.2.2 | | Paging for CS fallback / Idle mode | | Rel-8 | | C26 | | | UEs supporting E-UTRA and CS fallback and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.3.2.2a | | Paging for CS fallback / Connected mode | | Rel-8 | | C26 | | | UEs supporting E-UTRA and CS fallback and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.1 | | Integrity protection / Correct functionality of EPS NAS integrity algorithm / SNOW3G | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.2 | | Integrity protection / Correct functionality of EPS NAS integrity algorithm / AES | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.3 | | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / SNOW3G | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.4 | | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / AES | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.5 | | Integrity protection / Correct functionality of EPS NAS integrity algorithm / ZUC | | Rel-11  (Note 3) | | C215 | | | UEs supporting E-UTRA and ZUC algorithm | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 9.4.6 | | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / ZUC | | Rel-11  (Note 3) | | C215 | | | UEs supporting E-UTRA and ZUC algorithm | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| **10** | | **EPS session management** | |  | |  | | |  | | |  | |  | |  | |  | |
| 10.2.1 | | Dedicated EPS bearer context activation / Success | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.2.2 | | Dedicated EPS bearer context with QCI 66 activation / Success | | Rel-14 | | C357 | | | UEs supporting E-UTRA and QCI 66 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.3.1 | | EPS bearer context modification / Success | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.4.1 | | EPS bearer context deactivation / Success | | Rel-8 | | C97 | | | UEs supporting E-UTRA and Multiple PDN | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.4.2 | | EPS bearer context deactivation / Re-establishment | | Rel-8 | | C209 | | | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured to provide IMS APN as the second PDN connection or UE configured to provide Internet as the second PDN connection. | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.5.1 | | UE requested PDN connectivity accepted by the network | | Rel-8 | | C97 | | | UEs supporting E-UTRA and Multiple PDN | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.5.1a | | UE requested PDN connectivity accepted / Dual priority / T3396 override | | Rel-11 | | C204 | | | UEs supporting E-UTRA and Multiple PDN and LAP and LAP override | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.5.1b | | UE requested PDN connectivity accepted / Dual priority / T3346 override | | Rel-11 | | C204 | | | UEs supporting E-UTRA and Multiple PDN and LAP and LAP override | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.5.2 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 10.5.3 | | UE requested PDN connectivity not accepted | | Rel-8 | | C97 | | | UEs supporting E-UTRA and Multiple PDN | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.5.4 | | UE requested PDN connectivity not accepted / Network reject with Extended Wait Timer | | Rel-10 | | C178 | | | UEs supporting E-UTRA and LAP | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.6.1 | | UE requested PDN disconnect procedure accepted by the network | | Rel-8 | | C97A | | | UEs supporting E-UTRA and Multiple PDN and User initiated PDN disconnect | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.6.2 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 10.7.1 | | UE requested bearer resource allocation accepted by the network / New EPS bearer context | | Rel-8 | | C54 | | | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.7.2 | | UE requested bearer resource allocation accepted by the network / Existing EPS bearer context | | Rel-8 | | C54 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.7.3 | | UE requested bearer resource allocation not accepted by the network | | Rel-8 | | C54 | | | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.7.4 | | UE requested bearer resource allocation / Expiry of timer T3480 | | Rel-8 | | C54 | | | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.7.5 | | UE requested bearer resource allocation / BEARER RESOURCE ALLOCATION REJECT message including cause #43 "invalid EPS bearer identity" | | Rel-8 | | C98 | | | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure and Multiple PDN | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.1 | | UE requested bearer resource modification accepted by the network / New EPS bearer context | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.2 | | UE requested bearer resource modification accepted by the network / Existing EPS bearer context | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.3 | | UE requested bearer resource modification not accepted by the network | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.4 | | UE requested bearer resource modification / Cause #36 "regular deactivation" | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.5 | | UE requested bearer resource modification / BEARER RESOURCE MODIFICATION REJECT message including cause #43 "invalid EPS bearer identity" | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.6 | | UE requested bearer resource modification / Collision of a UE requested bearer resource modification procedure and EPS bearer context deactivation procedure | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.7 | | UE requested bearer resource modification / Expiry of timer T3481 | | Rel-8 | | C55 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.8.8 | | UE requested bearer resource modification / Dual priority / low priority override | | Rel-11 | | C196 | | | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs and LAP and LAP override | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 10.9.1 | | UE routing of uplink packets | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| **11** | | **General tests** | |  | |  | | |  | | |  | |  | |  | |  | |
| 11.1.1 | | MT-SMS over SGs / Idle mode | | Rel-8 | | C22 | | | UEs supporting E-UTRA and MT SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.1.2 | | MT-SMS over SGs / Active mode | | Rel-8 | | C22 | | | UEs supporting E-UTRA and MT SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.1.3 | | MO-SMS over SGs / Idle mode | | Rel-8 | | C23 | | | UEs supporting E-UTRA and MO SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | | | pc\_eFDD | |  | | Note 14 | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.1.4 | | MO-SMS over SGs / Active mode | | Rel-8 | | C23 | | | UEs supporting E-UTRA and MO SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | | | pc\_eFDD | |  | | Note 14 | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.1.5 | | Multiple MO-SMS over SGs / Idle mode | | Rel-9  (Note 3) | | C164 | | | UEs supporting E-UTRA and concatenated multiple MO SMS over SGs and UE configured to not use SMS over IP | | | pc\_eFDD | |  | | Note 14 | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.1.6 | | Multiple MO-SMS over SGs / Active mode | | Rel-9  (Note 3) | | C164 | | | UEs supporting E-UTRA and concatenated multiple MO SMS over SGs and UE configured to not use SMS over IP | | | pc\_eFDD | |  | | Note 14 | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.1 | | Emergency bearer services / Normal cell / NORMAL-SERVICE / Local Emergency Numbers List sent in the Attach / PDN connect new emergency EPS bearer context / Service request / Emergency PDN disconnect | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD, pc\_eTDD, pc\_IPv4, pc\_IPv6, pb\_IPv4\_DHCPv4\_AAUP | |  | |  | |  | |
| 11.2.2 | | Emergency bearer services / Normal cell / LIMITED-SERVICE / Attach / PDN connect | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.3 | | Emergency bearer services / CSG cell / LIMITED-SERVICE / Attach / Security mode control procedure without prior authentication / PDN connect / Service request / PDN disconnect / Detach upon UE switched off / Temporary storage of EMM information | | Rel-9 | | C71a | | | UEs supporting E-UTRA and IMS emergency call and allowed CSG list and manual CSG selection and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.4 | | Emergency bearer services / Normal cell / NO-IMSI / Attach / No EPS security context / PDN connect / Service request / Timer T3412 expires | | Rel-9 | | C366 | | | UEs supporting E-UTRA and IMS emergency call and no USIM test execution | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.5 | | Emergency bearer services / Normal cell / NORMAL-SERVICE / Local Emergency Numbers List NOT sent in the Attach / PDN connect new emergency EPS bearer context / Authentication SQN code failure - MME aborts authentication continues using current security context / Service request | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.6 | | Handling of Local Emergency Numbers List provided during Attach and Normal tracking area update procedures | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.7 | | UE has PDN connection for emergency bearer services / Normal tracking area update / Accepted / Local Emergency Numbers List is not sent by the network / Handling of the lists of forbidden tracking areas | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.8 | | Attach for emergency bearer services / Rejected / No suitable cells in tracking area / Emergency call using the CS domain / UTRA or GERAN | | Rel-9 | | C109a | | | UEs supporting E-UTRA and IMS emergency call and establishing the emergency call using the CS domain in UTRA or GERAN and NOT Category M1 | | | pc\_eFDD | |  | | 1 Execution (Note 2) Either TC 11.2.8 or TC 11.2.8a shall be executed | | Rel-8 UTRA FDD or Rel-8 GERAN | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD or Rel-8 GERAN | |
| 11.2.8a | | Attach for emergency bearer services / Rejected / No suitable cells in tracking area / Emergency call using the CS domain / CDMA2000 1xRTT | | Rel-9 | | C172 | | | UEs supporting E-UTRA and IMS emergency call and establishing the emergency call using the CS domain in 1xRTT and NOT Category M1 | | | pc\_eFDD | |  | | Either TC 11.2.8 or TC 11.2.8a shall be executed | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.9 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 11.2.10 | | LIMITED-SERVICE / EPS does not support IMS Emergency / Emergency call using the CS domain | | Rel-9 | | C71b | | | UEs supporting E-UTRA and UTRA and IMS emergency call and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.11 | | LIMITED-SERVICE / Inter-system mobility / E-UTRA to UTRA CS / SRVCC Emergency Call Handover to UTRAN | | Rel-9 | | C139 | | | UEs supporting E-UTRA and UTRA and SRVCC and IMS emergency call and FGI 27 and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 11.2.12 | | LIMITED-SERVICE / Inter-system mobility / E-UTRA to GSM CS / SRVCC Emergency Call Handover to GERAN | | Rel-9 | | C231 | | | UEs supporting E-UTRA and GERAN and SRVCC and IMS emergency call and FGI 9 and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| **11.3** | | **eCall over IMS** | |  | |  | | |  | | |  | |  | |  | |  | |
| 11.3.1 | | eCall Only mode / T3444 / eCall inactivity procedure / Removal of eCall only restriction after an eCall over IMS | | Rel-14  (Note 7) | | C314 | | | UEs supporting E-UTRA and IMS eCall Only type of emergency services over EPS only and Manual type of eCall initiation | | | pc\_eFDD | |  | |  | |  | |
| pc\_eTDD | |  | |  | |  | |
| 11.3.2 | | eCall Only mode / T3445 / eCall inactivity procedure / Removal of eCall only restriction after a call to URI for test service | | Rel-14  (Note 7) | | C315 | | | UEs supporting E-UTRA and IMS eCall Only type of emergency services over EPS and Manual type of eCall initiation and capable of triggering a Test eCall | | | pc\_eFDD | |  | |  | |  | |
| pc\_eTDD | |  | |  | |  | |
| 11.3.3 | | eCall capable / EPS supports IMS voice over PS session / EPS supports emergency service / eCall over IMS is not supported / eCall using the CS domain / emergency call over IMS if eCall using the CS domain is not available / UTRA or GERAN | | Rel-14  (Note 7) | | C316 | | | UEs supporting E-UTRA and UTRA or GERAN and IMS eCall type of emergency services over EPS and Automatic type of eCall initiation and IMS emergency call | | | pc\_eFDD | |  | |  | | (Note 7A) | |
| pc\_eTDD | |  | |  | | (Note 7A) | |
| 11.3.4 | | eCall Only mode / EPS supports IMS voice over PS session / EPS does not support emergency service / eCall over IMS is not supported / eCall using CS domain / eCall failure if CS domain is not available | | Rel-14  (Note 7) | | C317 | | | UEs supporting E-UTRA and UTRA or GERAN and IMS eCall Only type of emergency services over EPS and Automatic type of eCall initiation | | | pc\_eFDD | |  | |  | | (Note 7A) | |
| pc\_eTDD | |  | |  | | (Note 7A) | |
| 11.3.5 | | eCall Only mode / EPS supports IMS voice over PS session / EPS supports emergency service / eCall over IMS is supported / RACH failure in EUTRA cell / eCall using the CS domain | | Rel-14  (Note 7) | | C317 | | | UEs supporting E-UTRA and UTRA or GERAN and IMS eCall Only type of emergency services over EPS and Automatic type of eCall initiation | | | pc\_eFDD | |  | |  | | (Note 7A) | |
| pc\_eTDD | |  | |  | | (Note 7A) | |
| 11.3.6 | | eCall Only mode / Limited service state / Call to URI for test service should not be attempted / eCall over IMS should be attempted | | Rel-14  (Note 7) | | C315 | | | UEs supporting E-UTRA and IMS eCall Only type of emergency services over EPS and Manual type of eCall initiation and capable of triggering a Test eCall | | | pc\_eFDD | |  | |  | |  | |
| pc\_eTDD | |  | |  | |  | |
| 11.3.7 | | eCall Only mode / SRVCC Handover to CS domain / UTRAN / MSD Update / Success | | Rel-14  (Note 7) | | C318 | | | UEs supporting E-UTRA and UTRA and IMS eCall Only type of emergency services over EPS and Manual type of eCall initiation | | | pc\_eFDD | |  | |  | | (Note 7A) | |
| pc\_eTDD | |  | |  | | (Note 7A) | |
| 11.3.8 | | eCall Only mode / SRVCC Handover to CS domain / GERAN / MSD Update / Success | | Rel-14  (Note 7) | | C319 | | | UEs supporting E-UTRA and GERAN and IMS eCall Only type of emergency services over EPS and Manual type of eCall initiation | | | pc\_eFDD | |  | |  | |  | |
| pc\_eTDD | |  | |  | |  | |
| **12** | | **E-UTRA radio bearer tests** | |  | |  | | |  | | |  | |  | |  | |  | |
| 12.2.1 | | Data transfer of E-UTRA radio bearer combinations 1, 3, 6 and 9 | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.2.2 | | Data transfer of E-UTRA radio bearer combinations 2, 4, 7 and 10 | | Rel-8 | | C16F | | | UEs supporting E-UTRA and Feature Group Indicator 7 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C16T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.2.3 | | Data transfer of E-UTRA radio bearer combinations 5, 8, 11 and 12 | | Rel-8 | | C32F | | | UEs supporting E-UTRA and Feature Group Indicator 7 and Feature Group Indicator 20 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C32T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.2.4 | | Data transfer of E-UTRA radio bearer combination 13 | | Rel-8 | | C33F | | | UEs supporting E-UTRA and Feature Group Indicator 20 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C33T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.3.1 | | Data transfer of E-UTRA radio bearer combinations 1, 3, 6 and 9 / MIMO | | Rel-8 | | C56 | | | UEs supporting E-UTRA and (UE Category 2 to UE Category 5) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.3.2 | | Data transfer of E-UTRA radio bearer combinations 2, 4, 7 and 10 / MIMO | | Rel-8 | | C29F | | | UEs supporting E-UTRA and Feature Group Indicator 7 and (UE Category 2 or UE Category 3 or UE Category 4 or UE Category 5) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C29T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.3.3 | | Data transfer of E-UTRA radio bearer combinations 5, 8, 11 and 12 / MIMO | | Rel-8 | | C31F | | | UEs supporting E-UTRA and Feature Group Indicator 7 and Feature Group Indicator 20 and (UE Category 2 or UE Category 3 or UE Category 4 or UE Category 5) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C31T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 12.3.4 | | Data transfer of E-UTRA radio bearer combination 13 / MIMO | | Rel-8 | | C30F | | | UEs supporting E-UTRA and Feature Group Indicator 20 and (UE Category 2 or UE Category 3 or UE Category 4 or UE Category 5) and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C30T | | |  | | | pc\_eTDD | |  | |  | |  | |
| **13** | | **Multi layer Procedures** | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.1.1 | | Activation and deactivation of additional data radio bearer in E-UTRA | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.1.2 | | Call setup from E-UTRAN RRC\_IDLE / CS fallback to UTRAN with redirection / MO call | | Rel-8 | | C48 | | | UEs supporting E-UTRA and UTRA and CS fallback and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | | Rel-9 UTRA TDD | |
| 13.1.2a | | Call setup from E-UTRAN RRC\_IDLE / CS fallback to UTRAN with redirection including System Information / MO call | | Rel-9  (Note 3) | | C104 | | | UEs supporting E-UTRA and UTRA and CS fallback and use of the UTRA system information provided by *RRCConnectionRelease* upon redirection and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.1.3 | | Call setup from E-UTRAN RRC\_CONNECTED / CS fallback to UTRAN with redirection / MT call | | Rel-8 | | C84 | | | UEs supporting E-UTRA and UTRA and CS fallback and speech and PS domain services and CS domain services simultaneously and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | | Rel-9 UTRA TDD | |
| 13.1.4 | | Call setup from E-UTRAN RRC\_IDLE / CS fallback to UTRAN with handover / MT call | | Rel-8 | | C81F | | | UEs supporting E-UTRA and UTRA and CS fallback and Feature Group Indicator 8 and speech and PS domain services and CS domain services simultaneously and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C81T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.1.5 | | Call setup from E-UTRAN RRC\_CONNECTED / CS fallback to UTRAN with handover / MO call | | Rel-8 | | C81F | | | UEs supporting E-UTRA, UTRA, CS fallback and Feature Group Indicator 8 and speech and PS domain services and CS domain services simultaneously and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C81T | | |  | | | pc\_eTDD | |  | | Rel-9 UTRA TDD | |
| 13.1.6 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.1.7 | | Call setup from E-UTRA RRC\_IDLE / CS fallback to GSM with redirection / MT call | | Rel-8 | | C57 | | | UEs supporting E-UTRA and GERAN and CS fallback and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.8 | | Call setup from E-UTRA RRC\_CONNECTED / CS fallback to GSM with redirection / MO call | | Rel-8 | | C60 | | | UEs supporting E-UTRA and GERAN and CS fallback and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.9 | | Call setup from E-UTRA RRC\_IDLE / CS fallback to GSM with CCO without NACC / MO call | | Rel-8 | | C96F | | | UEs supporting E-UTRA and GERAN and CS fallback and Feature Group Indicator 10 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C96T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.10 | | Call setup from E-UTRA RRC\_CONNECTED / CS fallback to GSM with CCO without NACC / MT call | | Rel-8 | | C96F | | | UEs supporting E-UTRA and GERAN and CS fallback and Feature Group Indicator 10 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C96T | | |  | | | pc\_eTDD | |  | |  | |
| 13.1.11 | | Call setup from E-UTRA RRC\_IDLE / CS fallback to GSM with PSHO / EDTM not supported / MT call | | Rel-8 | | C110F | | | UEs supporting E-UTRA and GERAN and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C110T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.12 | | Call setup from E-UTRA RRC\_CONNECTED / CS fallback to GSM with PSHO / EDTM not supported / MO call | | Rel-8 | | C110F | | | UEs supporting E-UTRA and GERAN and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C110T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.13 | | Call setup from E-UTRA RRC\_IDLE / CS fallback to GSM with PSHO / EDTM supported / MT call | | Rel-8 | | C111F | | | UEs supporting E-UTRA and GERAN and EDTM and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C111T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.14 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.1.15 | | Call setup from E-UTRAN RRC\_IDLE / CS fallback to UTRAN with redirection / MT call / UTRAN cell is barred | | Rel-8 | | C48 | | | UEs supporting E-UTRA and UTRA and CS fallback and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.1.16 | | Emergency call setup from E-UTRAN RRC\_IDLE / CS fallback to UTRAN with handover | | Rel-8 | | C105F | | | UEs supporting E-UTRA and UTRA and CS fallback and Feature Group Indicator 8 and speech and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C105T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.1.17 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.1.18 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.1.19 | | Emergency call setup from E-UTRAN RRC\_IDLE / IMS VoPS supported / EMC BS not supported / CS fallback to UTRAN or GERAN with redirection | | Rel-9 | | C249 | | | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.20 | | Emergency call setup from E-UTRAN RRC\_IDLE / IMS VoPS not supported / EMC BS supported / CS fallback to UTRAN or GERAN with redirection | | Rel-9 | | C249 | | | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.21 | | Emergency Call setup from E-UTRA RRC\_IDLE but IMS voice not available / IMS VoPS supported / EMC BS supported / UE performs emergency call via CS domain | | Rel-9 | | C249 | | | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.22 | | MCPTT / Attach / Call setup CO | | Rel-14 | | C397 | | | UEs supporting E-UTRA and MCPTT Client | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.23 | | MCVideo / Attach / Call setup CO | | Rel-14 | | C409 | | | UEs supporting E-UTRA and MCVideo Client | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.1.24 | | MCData / Attach / Call setup CO | | Rel-14 | | C410 | | | UEs supporting E-UTRA and MCData Client | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.2.1 | | RRC connection reconfiguration / E-UTRA to E-UTRA | | Rel-8 | | C12 | | | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.3.1.1 | | Intra-system connection re-establishment / Radio link recovery while T310 is running | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.3.1.2 | | Intra-system connection re-establishment / Re-establishment of a new connection when further data is to be transferred | | Rel-8 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.3.1.3 | | RRC connection reconfiguration / Full configuration / DRB establishment | | Rel-9 | | R | | | UEs supporting E-UTRA | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.3.2.1 | | Inter-system connection re-establishment / E-UTRAN to UTRAN / Further data are to be transferred | | Rel-8 | | C01 | | | UEs Supporting E-UTRA and UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | | Rel-9 UTRA TDD | |
| 13.3.2.2 | | Inter-system connection re-establishment / E-UTRAN to GPRS / Further data are to be transferred | | Rel-8 | | C05 | | | UEs Supporting E-UTRA and GERAN and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.1.1 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.1.2 | | Inter-frequency mobility / E-UTRA to E-UTRA packet | | Rel-8 | | C21aF | | | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C21aT | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.1.3 | | Intra-system mobility / E-UTRA FDD to E-UTRA TDD to E-UTRA FDD packet | | Rel-8 | | C63 | | | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | | |  | |  | |  | |  | |
| 13.4.1.4 | | Inter-band mobility / E-UTRA to E-UTRA packet | | Rel-9  (Note 3) | | C185F | | | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED))) | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C185T | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.1.5 | | RRC connection reconfiguration / Handover/ Full configuration / DRB establishment | | Rel-9 | | C12 | | | UEs supporting E-UTRA or (CE Mode A and “eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A” and “intra-frequency handover to target cell in normal coverage and CE Mode A”) | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.2.1 | | Inter-system mobility / E-UTRA to UTRA packet | | Rel-8 | | C36F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C36T | | |  | | | pc\_eTDD | |  | | Rel-9 UTRA TDD | |
| 13.4.2.2 | | Inter-system mobility / E-UTRAN to GPRS packet | | Rel-8 | | C107F | | | UEs supporting E-UTRA and GERAN and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C107T | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.2.3 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.2.4 | | Inter-system mobility / Service based redirection from UTRA to E-UTRA | | Rel-8 | | C01 | | | UEs supporting E-UTRA and UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.2.5 | | Inter-system mobility / Service based redirection from GSM/GPRS to E-UTRA | | Rel-8 | | C114 | | | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN and E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.2.6 | | Inter-RAT PS Handover / from GPRS Packet\_transfer to E-UTRA cell | | Rel-8 | | C89 | | | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN PS Handover and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.2.7 | | Inter-RAT PS Handover / Synchronised / From GPRS Packet\_transfer to E-UTRA cell (CCN mode) | | Rel-8 | | C89 | | | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN PS Handover and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.2.8 | | Inter-RAT PS Handover / Synchronised / From GPRS Packet\_transfer to E-UTRA cell (NC2 mode) | | Rel-8 | | C89 | | | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN PS Handover and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.4.3.1 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / SRVCC | | Rel-8 | | C112F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 7 and Feature Group Indicator 8 and Feature Group Indicator 22 and Feature Group Indicator 27 and SRVCC and IM S voice and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C112T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.2 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / SRVCC | | Rel-8 | | C112F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 7 and Feature Group Indicator 8 and Feature Group Indicator 22 and Feature Group Indicator 27 and SRVCC and IM S voice and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C112T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.3 | | Inter-system mobility / E-UTRA voice to GSM CS voice / SRVCC | | Rel-8 | | C144F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C144T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.4 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / Unsuccessful case / Retry on old cell / SRVCC | | Rel-8 | | C112F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 7 and Feature Group Indicator 8 and Feature Group Indicator 22 and Feature Group Indicator 27 and SRVCC and IM S voice and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C112T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.5 | | Inter-system mobility / E-UTRA voice to GSM CS voice / Unsuccessful case / Retry on old cell / SRVCC | | Rel-8 | | C144F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C144T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.6 | | Inter-system mobility / E-UTRA PS voice + PS Data / HO cancelled / Notification procedure / SRVCC | | Rel-9  (Note 3) | | C160F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 7, 8, 22 and 27 and SRVCC and IMS voice and Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | | Either TC 13.4.3.6 or TC 13.4.3.41 shall be executed. (Note 9) | | Rel-8 UTRA FDD | |
|  | |  | |  | | C160T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.7 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MO call | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.8 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MO call / Forked responses | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.9 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MO call / SRVCC HO failure | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.10 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MT call | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.11 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MT call / SRVCC HO failure | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.12 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.3.13 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MT call / SRVCC HO cancelled / User answers in PS domain | | Rel-10  (Note 3) | | C161F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C161T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.14 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / aSRVCC / MO call | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.15 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / aSRVCC / MO call / SRVCC HO cancelled | | Rel-10  (Note 3) | | C161F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C161T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.16 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / aSRVCC / MT call | | Rel-10  (Note 3) | | C159F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C159T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.17 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.3.18 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / bSRVCC / MO call | | Rel-12  (Note 3) | | C201F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and bSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C201T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.19 | | Inter-system mobility / E-UTRA PS voice + PS data to UTRA CS voice + PS data / bSRVCC / MO call / SRVCC HO cancelled | | Rel-12  (Note 3) | | C202F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and bSRVCC and Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C202T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.20 | | Inter-system mobility / E-UTRA voice to UTRA CS voice / bSRVCC / MO call / SRVCC HO failure | | Rel-12  (Note 3) | | C201F | | | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and bSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | | Rel-8 UTRA FDD | |
|  | |  | |  | | C201T | | |  | | | pc\_eTDD | |  | |  | | Rel-9 UTRA TDD | |
| 13.4.3.21 | | Inter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO call | | Rel-12  (Note 3) | | C198F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND bSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C198T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.22 | | Inter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO call / SRVCC HO cancelled | | Rel-12  (Note 3) | | C199F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND bSRVCC AND Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C199T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.23 | | Inter-system mobility / E-UTRA voice to GSM CS voice / bSRVCC / MO call / SRVCC HO failure | | Rel-12  (Note 3) | | C198F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND bSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C198T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.24 | | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MO call | | Rel-10  (Note 3) | | C193F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C193T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.25 | | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MO call / Forked responses | | Rel-10  (Note 3) | | C193F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C193T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.26 | | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MO call / SRVCC HO failure | | Rel-10  (Note 3) | | C193F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C193T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.27 | | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call | | Rel-10  (Note 3) | | C193F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C193T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.28 | | Inter-system mobility / E-UTRA voice to GERAN CS voice / aSRVCC / MT call / SRVCC HO failure | | Rel-10  (Note 3) | | C193F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C193T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.29 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.3.30 | | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call / SRVCC HO cancelled / User answers in PS domain | | Rel-10  (Note 3) | | C200F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC AND Notification procedure and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C200T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.31 | | Inter-system mobility / GERAN CS voice to E-UTRA voice / rSRVCC | | Rel-11 | | C219 | | | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.32 | | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC | | Rel-11 | | C217 | | | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.33 | | Inter-system mobility / GERAN CS voice to E-UTRA voice / alerting / rSRVCC / MO call | | Rel-11 | | C220 | | | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.34 | | Inter-system mobility / UTRA CS voice to E-UTRA voice / alerting / rSRVCC / MO call | | Rel-11 | | C218 | | | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.35 | | Inter-system mobility / GERAN CS voice to E-UTRA voice / alerting / rSRVCC / MT call | | Rel-11 | | C220 | | | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.36 | | Inter-system mobility / UTRA CS voice to E-UTRA voice / alerting / rSRVCC / MT call | | Rel-11 | | C218 | | | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.37 | | Inter-system mobility / GERAN CS voice to E-UTRA voice / rSRVCC / HO cancelled | | Rel-11 | | C219 | | | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.38 | | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC / HO cancelled | | Rel-11 | | C217 | | | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.39 | | Inter-system mobility / UTRA CS voice + PS data to E-UTRA voice + PS data / rSRVCC | | Rel-11 | | C217 | | | UEs supporting E-UTRA and UTRA and IMS voice and IMS and rSRVCC and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.40 | | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC / Multiple voice calls with mid-call feature | | Rel-11 | | C232 | | | UEs supporting E-UTRA and UTRA and IMS voice and IMS and rSRVCC and multiple PDN and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.3.41 | | Inter-system mobility / E-UTRA PS voice to GSM CS voice / HO cancelled / Notification procedure / SRVCC | | Rel-9 | | C144F | | | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | | | pc\_eFDD | |  | | Either TC 13.4.3.6 or TC 13.4.3.41 shall be executed (Note 9) | |  | |
|  | |  | |  | | C144T | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.4.4.1 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.4.2 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.4.3 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.4.4 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.4.4.5 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.5.1 | | MTSI MO speech call / SSAC / 0% access probability for MTSI MO speech call | | Rel-9 | | C236 | | | UEs supporting E-UTRA and Initiating session and MTSI speech | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.5.1a | | MTSI MO speech call / SSAC in Connected mode / 0% access probability for MTSI MO speech call | | Rel-12  (Note 7) | | C236 | | | UEs supporting E-UTRA and Initiating session and MTSI speech | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.5.1b | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.5.2 | | MTSI MO video call / SSAC / 0% access probability for MTSI MO video call | | Rel-9 | | C237 | | | UEs supporting E-UTRA and Initiating session and MTSI speech and MTSI video and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.5.2a | | MTSI MO video call / SSAC in Connected mode / 0% access probability for MTSI MO video call | | Rel-12  (Note 7) | | C237 | | | UEs supporting E-UTRA and Initiating session and MTSI speech and MTSI video and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.5.2b | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 13.5.3 | | Emergency call / Success / SSAC / 0% access probability for MTSI MO speech call | | Rel-9 | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.5.3a | | Emergency call / Success / SSAC in Connected mode / 0% access probability for MTSI MO speech call | | Rel-12  (Note 7) | | C71 | | | UEs supporting E-UTRA and IMS emergency call | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 13.5.4 | | MTSI MO speech call / SCM / 0% access probability skip for MTSI MO speech call | | Rel-12  (Note 17) | | C183 | | | UEs supporting E-UTRA and (PRD IR.92: "IMS Profile for Voice and SMS" or PRD NG.108: "IMS Profile for Voice and SMS for UE category M1") | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.5.5 | | MTSI MO video call / SCM / 0% access probability skip for MTSI MO video call | | Rel-12  (Note 17) | | C223 | | | UE supporting E-UTRA and MTSI Video call and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.5.6 | | MTSI MO SMS / SCM / 0% access probability skip for MTSI MO SMS over IP | | Rel-12  (Note 17) | | C183 | | | UEs supporting E-UTRA and (PRD IR.92: "IMS Profile for Voice and SMS" or PRD NG.108: "IMS Profile for Voice and SMS for UE category M1") | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 13.6.1 | | Inter-system mobility between untrusted Non-3GPP and 3GPP system/Handover from E-UTRAN/EPC to ePDG/EPC | | Rel-15 | | C416 | | | UEs supporting IMS and handover from E-UTRAN/EPC to EPC over non-3GPP Access Network and GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi". | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| **14** | | **ETWS** | |  | |  | | |  | | |  | |  | |  | |  | |
| 14.1 | | ETWS reception in RRC\_IDLE state / Duplicate detection | | Rel-8 | | C64 | | | UEs supporting E-UTRA and ETWS reception | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 14.2 | | ETWS reception in RRC\_CONNECTED state / Duplicate detection | | Rel-8 | | C64a | | | UEs supporting E-UTRA and ETWS reception and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 14.3 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| **15** | | **Mobility management based on DSMIPv6 (Dual-Stack Mobile IPv6)** | |  | |  | | |  | | |  | |  | |  | |  | |
| 15.1 | | Discovery of the Home Agent via DNS | | Rel-8 | | C34 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to discover the Home Agent address via DNS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.2 | | Discovery of the Home Agent via DHCP | | Rel-8 | | C49 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to discover the Home Agent address via DHCPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.3 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 15.4 | | Security association establishment with Home Agent reallocation procedure | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.5 | | Security association establishment without Home Agent reallocation procedure | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.6 | | Registration of a new IPv6 CoA (Binding Update/Acknowledgment procedure in IPv6 network) | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.7 | | Registration of a new IPv4 CoA (Binding Update/Acknowledgment procedure in IPv4 network) | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.8 | | Re-registration of IPv6 CoA | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.9 | | Re-registration of IPv4 CoA | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.10 | | Return to home link | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.11 | | Dual-Stack Mobile IPv6 detach in IPv6 network | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 15.12 | | Dual-Stack Mobile IPv6 detach in IPv4 network | | Rel-8 | | C35 | | | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| **16** | | **Home (e)NB related** | |  | | |  | | |  | |  | |  | |  | |  | |
| 16.1.1.1 | | Void | |  | | |  | | |  | |  | |  | |  | |  | |
| 16.1.1.2 | | Void | |  | | |  | | |  | |  | |  | |  | |  | |
| **17** | | **MBMS in LTE** | |  | |  | | |  | | |  | |  | |  | |  | |
| 17.1.1 | | MCCH information acquisition/ UE is switched on | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.1.2 | | MCCH information acquisition/ cell reselection to a cell in a new MBSFN area | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.1.3 | | MCCH information acquisition/ UE handover to a cell in a new MBSFN area | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.1.4 | | MCCH information acquisition/ UE is receiving an MBMS service | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.1.5 | | MCCH information acquisition/ UE is not receiving MBMS data | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.2.1 | | UE Acquire the MBMS data based on the SIB13 and MCCH message /MCCH and MTCH are on the same MCH | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.2.2 | | UE Acquire the MBMS data based on the SIB13 and MCCH message /MCCH and MTCH are on different MCHs | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.2.3 | | UE receives the MBMS data when this data is in the beginning of the MSP | | Rel-9 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.2.4 | | Reception of PDCCH DCI format 0 and PHICH in MBSFN subframes | | Rel-9 | | C224c | | | UEs supporting E-UTRA and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.3.1 | | MBMS Counting / UE not receiving MBMS service | | Rel-10 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.3.2 | | MBMS Counting / UE receiving MBMS service | | Rel-10 | | C113 | | | UEs supporting E-UTRA and MBMS | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.1 | | Cell reselection to intra-frequency cell to continue MBMS service reception | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | | Either TC 17.4.1 or TC 17.4.1a shall be executed. (Note 8) | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.1a | | Cell reselection to intra-frequency cell to continue MBMS service reception / Single Frequency operation (inter-band neighbouring cell) | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity. This test is 'cells on single frequency only' equivalent of TC 17.4.1 | | | pc\_eFDD | |  | | Either TC 17.4.1 or TC 17.4.1a shall be executed. (Note 8) | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 17.4.2 | | Cell reselection to inter- frequency cell to start MBMS service reception | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.2a | | Cell reselection to inter-band cell to start MBMS service reception | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.3 | | Handover to inter-frequency cell to start MBMS service reception | | Rel-11 | | C113bF | | | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113bT | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.3a | | Handover to inter-band cell to start MBMS service reception | | Rel-11 | | C113bF | | | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113bT | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.4 | | Handover to intra-frequency cell to continue MBMS service reception | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.5 | | Conditional retransmission of MBMS Interest Indication after handover | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.6 | | MBMS Interest Indication retransmission after returning from cell not broadcasting SIB15 | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.7 | | MBMS Interest Indication after Radio Link Failure | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.8 | | Continued MBMS service reception after E-UTRAN release of unicast bearer | | Rel-11 | | C113a | | | UEs supporting E-UTRA and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.9.1 | | CA / Start MBMS reception on Non-Serving Cell / Continue MBMS reception on SCell after SCell addition / Intra-band Contiguous CA | | Rel-11 | | C113cF | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113cT | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.9.2 | | CA / Start MBMS reception on Non-Serving Cell / Continue MBMS reception on SCell after SCell addition / Inter-band CA | | Rel-11 | | C113dF | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113dT | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.10.1 | | CA / Start MBMS reception on SCell / Continue MBMS reception on Non-Serving after SCell release / Intra-band Contiguous CA | | Rel-11 | | C113e | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.10.2 | | CA / Start MBMS reception on SCell / Continue MBMS reception on Non-Serving after SCell release / Inter-band CA | | Rel-11 | | C113f | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.11.1 | | CA / Start MBMS reception on PCell / Continue MBMS reception after swap of SCell and PCell / Intra-band Contiguous CA | | Rel-11 | | C113cF | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113cT | | |  | | | pc\_eTDD | |  | |  | |
| 17.4.11.2 | | CA / Start MBMS reception on PCell / Continue MBMS reception after swap of SCell and PCell / Inter-band CA | | Rel-11 | | C113gF | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | | C113gT | | |  | | | pc\_eTDD | |  | |  | |
| **18** | | **PWS** | |  | |  | | |  | | |  | |  | |  | |  | |
| 18.1.1 | | PWS reception in RRC\_IDLE state / Duplicate detection | | Rel-9  (Note 3) | | C129 | | | UEs supporting E-UTRA and CMAS | | | pc\_eFDD | |  | |  | |  | |
| 18.1.2 | | PWS reception in RRC\_CONNECTED state / Duplicate detection | | Rel-9  (Note 3) | | C129a | | | UEs supporting E-UTRA and CMAS and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
| 18.1.3 | | PWS reception in RRC\_CONNECTED State/Power On | | Rel-9  (Note 3) | | C129a | | | UEs supporting E-UTRA and CMAS and NOT Category M1 | | | pc\_eFDD | |  | |  | |  | |
| **19** | | **Device to Device Proximity Service** | |  | |  | | |  | | |  | |  | |  | |  | |
| 19.1.1 | | ProSe direct Communication /Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (serving) cells/PLMNs / Transmission | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.2 | | ProSe direct Communication /Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (serving) cells/PLMNs / Reception | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.3 | | ProSe Direct Communication/Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (serving) cells/PLMNs / Transmission / RRC connection reconfiguration with/without mobilityControlInfo / RRC connection re-establishment | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.4 | | ProSe Direct Communication/Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (serving) cells/PLMNs / Reception / RRC connection reconfiguration with mobilityControlInfo / RRC connection re-establishment | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.5 | | ProSe Direct Communication/Pre-configured authorisation / UE camped on an E-UTRAN cell not operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (not serving) cells/PLMNs / Transmission and Reception | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication. Note: This test is not applicable to bands which have 'cells on single frequency only'. | | | pc\_eFDD | |  | |  | |  | |
| 19.1.6 | | ProSe Direct Communication/Pre-configured authorisation / UE out of coverage on the frequency used for sidelink communication / Transmission and Reception / Operation with/without SyncRef UE / Usage information report list sending procedure | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.7 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 19.1.8 | | ProSe Direct Communication/Security Aspects / Release of PDN Connection used to receive MIKEY Messages/ Correct Key Request Message/ MIKEY Verification Message | | Rel-12 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.9 | | ProSe Direct Communication/Pre-configured authorisation / UE out of coverage on the frequency used for sidelink communication / Isolated one-to-one ProSe direct communication / Success/Direct link keepalive/Release upon User request / MO | | Rel-13 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.1.10 | | ProSe Direct Communication/Pre-configured authorisation / UE out of coverage on the frequency used for sidelink communication / Isolated one-to-one ProSe direct communication / Success/Direct link keepalive/Release upon User request / MT | | Rel-13 | | C238 | | | UEs supporting E-UTRA FDD and supporting ProSe direct communication | | | pc\_eFDD | |  | |  | |  | |
| 19.2.1 | | ProSe Direct Discovery Monitoring/Pre-configured authorisation / Monitoring / Handling of validity timers / Utilisation of the resources of different cells/PLMNs | | Rel-12 | | C240 | | | UEs supporting E-UTRA and ProSe direct discovery | | | pc\_eFDD, pc\_disc\_public\_safety | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_disc\_public\_safety | |  | |  | |  | |
| 19.2.2 | | ProSe Direct Discovery Announcing/Pre-configured authorisation / Announcing and SLSS transmission in RRC\_IDLE / Handling of validity timers / Utilisation of the resources of different cells/PLMNs | | Rel-12 | | C240 | | | UEs supporting E-UTRA and ProSe direct discovery | | | pc\_eFDD, pc\_disc\_public\_safety | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_disc\_public\_safety | |  | |  | |  | |
| 19.2.3 | | ProSe Direct Discovery Announcing/Pre-configured authorisation / Announcing and SLSS transmission in RRC\_CONNECTED / RRC connection reconfiguration with/without the mobilityControlInfo / RRC connection re-establishment | | Rel-12 | | C240 | | | UEs supporting E-UTRA and ProSe direct discovery | | | pc\_eFDD, pc\_disc\_public\_safety, pc\_discScheduledResourceAlloc, pc\_discUESelectedResourceAlloc | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD, pc\_disc\_public\_safety, pc\_discScheduledResourceAlloc, pc\_discUESelectedResourceAlloc | |  | |  | |  | |
| 19.2.4 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 19.2.5 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 19.2.6 | | One-to-many ProSe direct communication/Pre-configured authorisation/Off-network / ProSe Direct Discovery for public safety use / Announcing UE procedure for group member discovery | | Rel-13 | | C324 | | | UEs supporting E-UTRA and ProSe direct discovery for public safety use and Announcing for group member discovery | | | pc\_eFDD, pc\_disc\_public\_safety  pc\_ProSeAnnForGroupMemberDiscovery | |  | |  | |  | |
| 19.2.7 | | One-to-many ProSe direct communication/Pre-configured authorisation/Off-network / ProSe Direct Discovery for public safety use / Discoverer UE procedure for group member discovery | | Rel-13 | | C240 | | | UEs supporting E-UTRA and ProSe direct discovery for public safety use | | | pc\_eFDD, pc\_disc\_public\_safety | |  | |  | |  | |
| 19.2.8 | | One-to-many ProSe direct communication/Pre-configured authorisation/Off-network / ProSe Direct Discovery for public safety use / Discoveree UE procedure for group member discovery | | Rel-13 | | C240 | | | UEs supporting E-UTRA and ProSe direct discovery for public safety use | | | pc\_eFDD, pc\_disc\_public\_safety | |  | |  | |  | |
| **20** | | **Tunnel management procedures UE to ePDG** | |  | |  | | |  | | |  | |  | |  | |  | |
| 20.1 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 20.2 | | Selection of ePDG and Tunnel establishment | | Rel-11 | | C269 | | | UEs supporting WLAN and GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi" | | |  | |  | |  | |  | |
| 20.3 | | UE initiated disconnection | | Rel-11 | | C269 | | | UEs supporting WLAN and GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi" | | |  | |  | |  | |  | |
| 20.4 | | ePDG initiated disconnection | | Rel-11 | | C269 | | | UEs supporting WLAN and GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi" | | |  | |  | |  | |  | |
| **21** | | **SC-PTM in LTE** | |  | |  | | |  | | |  | |  | |  | |  | |
| 21.1.1 | | SC-MCCH information acquisition/ UE is switched on | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.2 | | SC-MCCH information acquisition/ cell reselection to a cell broadcasting SIB20 | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.3 | | SC-MCCH information acquisition/ UE handover to a cell broadcasting SIB20 | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.4 | | SC-MCCH information acquisition/ UE is receiving an SC-PTM service | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.5 | | SC-MCCH information acquisition/ UE is not receiving SC-PTM data | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.6 | | SC-MCCH information acquisition / Enhanced Coverage | | Rel-14 | | C354 | | | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.1.7 | | SC-MCCH information acquisition / Enhanced Coverage / Paging precedence | | Rel-14 | | C354 | | | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.2.1 | | DRX operation / Parameters configured by RRC | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.2.2 | | DRX operation / Parameters configured by RRC / Enhanced Coverage | | Rel-14 | | C354 | | | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) | | | pc\_eFDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_eTDD | |  | |  | |  | |
| 21.3.1 | | Cell reselection to intra-frequency cell to continue SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.1a | | Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell) | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.2 | | Cell reselection to inter-frequency cell to start SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.2a | | Cell reselection to inter-band cell to start SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.2c | | Cell reselection to inter-frequency cell using QoffsetSCPTM / Enhanced Coverage | | Rel-14 | | C354 | | | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.3 | | Handover to inter-frequency cell to start SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.3a | | Handover to inter-band cell to start SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.4 | | Handover to intra-frequency cell to continue SC-PTM service reception | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.5 | | Conditional retransmission of MBMS Interest Indication after handover | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.6 | | MBMS Interest Indication retransmission after returning from cell not broadcasting SIB15 | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.7 | | MBMS Interest Indication retransmission after returning from cell not broadcasting SIB20 | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.8 | | MBMS Interest Indication after Radio Link Failure | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.9 | | Continued SC-PTM service reception after E-UTRAN release of unicast bearer | | Rel-13 | | C259 | | | UEs supporting E-UTRA and SC-PTM | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.10.1 | | CA / Start SC-PTM reception on Non-Serving Cell / Continue SC-PTM reception on SCell after SCell addition / Intra-band Contiguous CA | | Rel-13 | | C259cF | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and SC-PTM and reception of SCPTM on SCell and on NonServingCell | | | pc\_eFDD | |  | |  | |  | |
|  | | C259cT | | | pc\_eTDD | |  | |  | |  | |
| 21.3.10.2 | | CA / Start SC-PTM reception on Non-Serving Cell / Continue SC-PTM reception on SCell after SCell addition / Inter-band CA | | Rel-13 | | C259dF | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and SC-PTM and reception of SCPTM on SCell and on NonServingCell | | | pc\_eFDD | |  | |  | |  | |
|  | | C259dT | | | pc\_eTDD | |  | |  | |  | |
| 21.3.11.1 | | CA / Start SC-PTM reception on SCell / Continue SC-PTM reception on Non-Serving after SCell release / Intra-band Contiguous CA | | Rel-13 | | C259e | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and SC-PTM and reception of SCPTM on SCell and on NonServingCell | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.11.2 | | CA / Start SC-PTM reception on SCell / Continue SC-PTM reception on Non-Serving after SCell release / Inter-band CA | | Rel-13 | | C259f | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and SC-PTM and reception of SCPTM on SCell and on NonServingCell | | | pc\_eFDD | |  | |  | |  | |
|  | | pc\_eTDD | |  | |  | |  | |
| 21.3.12.1 | | CA / Start SC-PTM reception on PCell / Continue SC-PTM reception after swap of SCell and PCell / Intra-band Contiguous CA | | Rel-13 | | C259gF | | | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and SC-PTM and reception of SCPTM on SCell | | | pc\_eFDD | |  | |  | |  | |
|  | | C259gT | | | pc\_eTDD | |  | |  | |  | |
| 21.3.12.2 | | CA / Start SC-PTM reception on PCell / Continue SC-PTM reception after swap of SCell and PCell / Inter-band CA | | Rel-13 | | C259hF | | | UEs supporting E-UTRA and Inter-band Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and SC-PTM and reception of SCPTM on SCell | | | pc\_eFDD | |  | |  | |  | |
|  | | C259hT | | | pc\_eTDD | |  | |  | |  | |
| 21.3.13 | | SC-PTM Stop Indication / Enhanced Coverage | | Rel-14 | | C354 | | | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) | | | pc\_eFDD | |  | |  | |  | |
| pc\_eTDD | |  | |  | |  | |
| **22** | | **NB-IoT** | |  | |  | | |  | | |  | |  | |  | |  | |
| 22.1.1 | | NB-IoT / Control Plane CIoT EPS optimisation for EPS services | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD, pc\_NonIP\_PDN, pc\_IP\_PDN, pc\_NB\_S1\_only pc\_NonIP\_Link\_MTU\_Parameter pc\_IPv4\_Link\_MTU\_Parameter pc\_APN\_RateControl | | px\_DoAttachWithoutPDN, px\_nonSMSTransport\_CP\_CIoT, px\_SMSTransport\_CP\_CIoT, px\_ModifyBearerResources, | | Note 18 | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD, pc\_NonIP\_PDN, pc\_IP\_PDN, pc\_NB\_S1\_only pc\_NonIP\_Link\_MTU\_Parameter pc\_IPv4\_Link\_MTU\_Parameter pc\_APN\_RateControl | | px\_DoAttachWithoutPDN, px\_nonSMSTransport\_CP\_CIoT, px\_SMSTransport\_CP\_CIoT, px\_ModifyBearerResources, | | Note 18 | |  | |
| 22.1.2 | | NB-IoT / NTN | | Rel-17 | | C412 | | | UEs supporting NB-IoT and (NTN access or NTN only access in NB-IoT) and NTN features in GSO in NB-IoT or NGSO scenario in NB-IoT | | | pc\_NB\_FDD, pc\_NonIP\_PDN, pc\_IP\_PDN, pc\_NB\_S1\_only pc\_NonIP\_Link\_MTU\_Parameter pc\_IPv4\_Link\_MTU\_Parameter pc\_APN\_RateControl  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_only\_Connectivity\_EPC pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_NGSO\_ScenarioSupport | | px\_DoAttachWithoutPDN, px\_nonSMSTransport\_CP\_CIoT, px\_SMSTransport\_CP\_CIoT, px\_ModifyBearerResources | | Note 18  Note 22 | |  | |
| 22.2.1 | | NB-IoT / PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.2 | | NB-IoT / PLMN selection of RPLMN, HPLMN / EHPLMN, UPLMN and OPLMN / Manual mode | | Rel-13 | | C266a | | | UEs supporting NB-IoT and Manual Mode PLMN Selection exception | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.3 | | NB-IoT / PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.4 | | NB-IoT / Cell selection / Qrxlevmin and Qqualmin / Serving cell becomes non-suitable (S<0 or barred or Srxlev > 0 and Squal < 0) | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.5 | | NB-IoT / Intra-frequency Cell reselection / Qhyst, Qoffset, Treselection and Cell-specific reselection parameters | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.6 | | NB-IoT / Cell reselection using cell status and cell reservations / Access control class 0 to 9 | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.7 | | NB-IoT / Cell reselection using cell status and cell reservations / Access control class 11 to 15 | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.8 | | NB-IoT / Cell reselection in shared network environment | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.9 | | NB-IoT / Inter-frequency cell reselection | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.10 | | NB-IoT / Cell reselection / MFBI | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.2.11 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 22.2.12 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 22.2.13 | | NB-IoT / NTN / Multi-TAC | | Rel-17 | | C412 | | | UEs supporting NB-IoT and (NTN access or NTN only access in NB-IoT) and NTN features in GSO in NB-IoT or NGSO scenario in NB-IoT | | | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_only\_Connectivity\_EPC  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_NGSO\_ScenarioSupport | |  | | Note 22 | |  | |
| 22.3.1.1 | | NB-IoT / RACH Procedure / Preamble Selected by MAC / Temporary C-RNTI | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.2 | | NB-IoT / Correct Handling of DL MAC PDU / Assignment / HARQ process / TimeAlignmentTimer expiry | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.3 | | NB-IoT / Correct Handling of UL MAC PDU / Assignment / HARQ process/Padding | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.4 | | NB-IoT / Correct handling of MAC control information / Buffer status | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.5 | | NB-IoT / DRX operation / DRX cycle configured / Parameters configured by RRC / DRX command MAC control element reception | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.5a | | NB-IoT / NTN / DRX / (UL)HARQ RTT | | Rel-17 | | C412 | | | UEs supporting NB-IoT and (NTN access or NTN only access in NB-IoT) and NTN features in GSO in NB-IoT or NGSO scenario in NB-IoT | | | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_only\_Connectivity\_EPC  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_NGSO\_ScenarioSupport | |  | | Note 22 | |  | |
| 22.3.1.6 | | NB-IoT / DL-SCH / UL-SCH transport block size selection / DCI format N1/ N0 | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.6a | | NB-IoT / DL-SCH / UL-SCH transport block size selection / DCI format N1/ N0 / Category NB2 | | Rel-14 | | C347 | | | UEs supporting NB-IoT and Category NB2 | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.7 | | NB-IoT / RACH Procedure / Contention free random access (CFRA) | | Rel-14 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.8 | | NB-IoT / RACH Procedure / Non-anchor carrier | | Rel-14 | | C348 | | | UEs supporting NB-IoT and NPRACH on non-anchor carrier | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.9 | | NB-IoT / Correct HARQ process / 2 HARQ processes | | Rel-14 | | C339 | | | UEs supporting NB-IoT and 2 HARQ processes in DL and UL and Category NB2 | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.10 | | NB-IoT / RACH Procedure / Early contention resolution | | Rel-14 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.11 | | NB-IoT / Scheduling Request / Without HARQ ACK | | Rel-15 | | C392 | | | UEs supporting NB-IoTFDD and SR without HARQ ACK | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.12 | | NB-IoT / RACH Procedure / Non-anchor carrier / Preamble format 2 | | Rel-15 | | C402 | | | UEs supporting NB-IoT FDD and NPRACH resources using preamble format 2 | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.1.13 | | NB-IoT / NTN / UE specific TA report / UE specific Koffset | | Rel-17 | | C413 | | | UEs supporting NB-IoT and NTN access in NB-IoT and NTN features in GSO or NGSO scenario in NB-IoT and Timing advance reporting in NTN cell in NB-IoT and timing relationship enhancements using Differential Koffset in NB-IoT | | | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_TA\_Report  pc\_NB\_ntn\_OffsetTimingEnh | |  | | Note 22 | |  | |
| 22.3.2.1 | | NB-IoT / AM RLC / Correct use of sequence numbering / Concatenation and reassembly / Polling for status | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.2 | | NB-IoT / AM RLC / Receiver status triggers | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.3 | | NB-IoT / AM RLC / In sequence delivery of upper layers PDUs/ Different numbers of length indicators | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.4 | | NB-IoT / AM RLC / Re-segmentation RLC PDU / SO, FI, LSF / Re-transmission of RLC PDU | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.5 | | NB-IoT / AM RLC / Segmentation and Reassembly / AMD PDU reassembly from AMD PDU segments / Re-ordering of RLC PDU segments | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.6 | | NB-IoT / UM RLC / Correct use of sequence numbering / Concatenation, segmentation and reassembly / SC-MCCH and SC-MTCH | | Rel-14 | | C351 | | | UEs supporting NB-IoTFDD and SC-PTM and Feature Group Indicator 3 and Feature Group Indicator 7 | | | pc\_NB\_FDD | |  | |  | |  | |
| 22.3.2.7 | | NB-IoT / AM RLC / Receiver status triggers / Non-zero t-Reordering configured | | Rel-14 | | C339 | | | UEs supporting NB-IoT and 2 HARQ processes in DL and UL and Category NB2 | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.2.7a | | NB-IoT / NTN / AM RLC / Receiver status triggers / extended t-Reordering configured | | Rel-17 | | C412 | | | UEs supporting NB-IoT and NTN access in NB-IoT and NTN features in GSO or NGSO scenario in NB-IoT | | | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_NGSO\_ScenarioSupport | |  | | Note 22 | |  | |
| 22.3.2.8 | | NB-IoT / UM RLC / Correct use of sequence numbering / Concatenation, segmentation and reassembly / Duplicate detection / User plane | | Rel-15 | | C377 | | | UEs supporting NB-IoT and RLC UM mode and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.1 | | NB-IoT / Maintenance of PDCP sequence numbers / User plane / RLC AM | | Rel-13 | | C290 | | | UEs supporting NB-IoT and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.2 | | NB-IoT / Integrity protection / Ciphering and deciphering / Correct functionality of EPS AS and UP encryption algorithms / SNOW3G | | Rel-13 | | C290 | | | UEs supporting NB-IoT and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.3 | | NB-IoT / Integrity protection / Ciphering and deciphering / Correct functionality of EPS AS and UP encryption algorithms / AES | | Rel-13 | | C290 | | | UEs supporting NB-IoT and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.4 | | NB-IoT / Integrity protection / Ciphering and deciphering / Correct functionality of EPS AS and UP encryption algorithms / ZUC | | Rel-13 | | C291 | | | UEs supporting NB-IoT and S1-U Data Transfer and ZUC algorithm | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.5 | | NB-IoT / PDCP re-establishment / stored UE AS context is used and drb-ContinueROHC is configured | | Rel-13 | | C396 | | | UEs supporting NB-IoT and User plane CIoT Optimisation in NB-S1 mode and  (ROHC profile0x0002 or  ROHC profile0x0003 or  ROHC profile0x0004 or  ROHC profile0x0006 or  ROHC profile0x0102 or  ROHC profile0x0103 or  ROHC profile0x0104) | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.3.3.6 | | NB-IoT / PDCP Discard | | Rel-13 | | C290 | | | UEs supporting NB-IoT and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.1 | | NB-IoT / Notification of BCCH modification in idle mode / eDRX cycle longer than the modification period | | Rel-13 | | C273 | | | UEs supporting NB-IoT and Extended DRX | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.2 | | NB-IoT / RRC / Paging for connection in idle mode / Multiple paging records / Shared network environment | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.3 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 22.4.4 | | NB-IoT / RRC connection establishment / Paging / Access Barring for UE with AC 0 to 9 / ab-Category a, b and c | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.5 | | NB-IoT / RRC connection establishment / Paging / Access Barring for UE with AC 11 to 15 / ab-Category a, b and c | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.6 | | NB-IoT / RRC / Paging for notification of BCCH modification in idle mode / Direct indication for SI update | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.7 | | NB-IoT / RRC connection release with extendedWait / extendedWait ignored / RRC connection establishment / Reject with extendedWait | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.8 | | NB-IoT / RRC connection establishment / Access Barring for UE with AC 0 to 9 / MO exception data / ab-Category a, b and c | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.9 | | NB-IoT / RRC connection establishment / Access Barring for UE with AC 11 to 15 / MO exception data / ab-Category a, b and c | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.10 | | Void | |  | |  | | |  | | |  | |  | |  | |  | |
| 22.4.11 | | NB-IoT / RRC connection release / Redirection to another NB-IoT frequency | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.12 | | NB-IoT / RRC connection release / Redirection to another NB-IoT band | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.13 | | NB-IoT / UE capability transfer / Success | | Rel-13 | | C266 | | | UEs supporting NB-IoT | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.14 | | NB-IoT / RRC Connection Establishment / Multi-Carrier | | Rel-13 | | C288 | | | UEs supporting NB-IoT and multi-carrier operation | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.14a | | NB-IoT / RRC Connection Establishment / Multi-Carrier / Mixed Standalone Operation | | Rel-15 | | C400 | | | UEs supporting NB-IoTFDD and Mixed Operation Mode | | | pc\_NB\_FDD | |  | |  | |  | |
| 22.4.15 | | NB-IoT / RRC connection suspend-resume / Success / different cell | | Rel-13 | | C271 | | | UEs supporting NB-IoT and User plane CIoT Optimisation in NB-S1 mode | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.16 | | NB-IoT / RRC connection suspend-resume / Failure / Network reject | | Rel-13 | | C271 | | | UEs supporting NB-IoT and User plane CIoT Optimisation in NB-S1 mode | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.17 | | Void | |  | |  | | |  | | | pc\_NB\_FDD | |  | |  | |  | |
| 22.4.18 | | NB-IoT / RRC connection reconfiguration / SRB reconfiguration / Success | | Rel-13 | | C290 | | | UEs supporting NB-IoT and S1-U Data Transfer | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |
| 22.4.19 | | Void | |  | |  | | |  | | | pc\_NB\_FDD | |  | |  | |  | |
| 22.4.19a | | NB-IoT / Radio link failure / T301 expiry / T311 expiry / RRC connection re-establishment | | Rel-14 | | C322 | | | UEs supporting NB-IoT and RRC connection re-establishment | | | pc\_NB\_FDD | |  | |  | |  | |
|  | |  | |  | |  | | |  | | | pc\_NB\_TDD | |  | |  | |  | |

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| 22.4.20 | NB-IoT / Radio link failure / RRC connection re-establishment reject | Rel-13 | C290 | UEs supporting NB-IoT and S1-U Data Transfer | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.20a | NB-IoT / Radio link failure / RRC connection re-establishment reject / RRC connection re-establishment | Rel-14 | C322 | UEs supporting NB-IoT and RRC connection re-establishment | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.21 | NB-IoT / Radio link failure / Radio link recovery while T310 is running | Rel-13 | C290 | UEs supporting NB-IoT and S1-U Data Transfer | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.22 | NB-IoT / Radio link failure / T301 expiry / T311 expiry / Dedicated RLF timer (UP/S1‑U) | Rel-13 | C290 | UEs supporting NB-IoT and S1-U Data Transfer | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.23 | NB-IoT / Radio link failure / T310 expiry / Dedicated RLF timer (CP CIoT) | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.24 | NB-IoT / RRC / Paging for connection in idle mode / Non-anchor carrier | Rel-14 | C349 | UEs supporting NB-IoT and paging on non-anchor carriers in NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  | C403 |  | pc\_NB\_TDD |  |  |  |
| 22.4.25 | NB-IoT / SC-MCCH information acquisition | Rel-14 | C350 | UEs supporting NB-IoTFDD and SC-PTM in Idle mode | pc\_NB\_FDD |  |  |  |
| 22.4.26 | NB-IoT / RRC connection establishment / Extended and spare fields in SI | Rel-13 to Rel-16 only | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  | Rel-15 to Rel-16 only |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.27 | NB-IoT / RRC connection establishment / Access barring enhancement | Rel-15 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.4.28 | NB-IoT / Wake-up Signal / DRX | Rel-15 | C390 | UEs supporting NB-IoT FDD and WUS | pc\_NB\_FDD |  |  |  |
| 22.4.29 | NB-IoT / Wake-up Signal / eDRX | Rel-15 | C391 | UEs supporting NB-IoT FDD and Extended DRX and WUS | pc\_NB\_FDD |  |  |  |
| 22.4.30 | NB-IoT / NTN / Ephemeris information update / T317 Expiry / T318 Expiry | Rel-17 | C412 | UEs supporting NB-IoT and (NTN access or NTN only access in NB-IoT) and NTN features in GSO or NGSO scenario in NB-IoT | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_only\_Connectivity\_EPC  pc\_NB\_ntn\_GSO\_ScenarioSupport  pc\_NB\_ntn\_NGSO\_ScenarioSupport |  | Note 22 |  |
| 22.5.1 | NB-IoT / Authentication not accepted by the network, GUTI used / Authentication not accepted by the UE, SQN failure / Authentication not accepted by the UE, non-EPS authentication unacceptable / Network failing the authentication check | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.2 | NB-IoT / NAS Security / Handling of null integrity protection and null ciphering algorithms / NAS count reset to zero / Security mode command with not matching replayed security capabilities / Provision of IMEISV and IMEI | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.3 | NB-IoT / NW initiated detach Re-attach required / UE initiated detach Abnormal case EMM common procedure collision / UE initiated detach Abnormal case Local detach after 5 attempts due to no network response | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.4 | NB-IoT / Attach to new PLMN IMSI / Network reject with Extended Wait Timer / Paging with IMSI / Attach Rejected Illegal ME/UE / Detach upon switch-off | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.5 | NB-IoT / Attach Procedure / Success / List of equivalent PLMNs in the ATTACH ACCEPT message / Attach / Rejected / PLMN not allowed | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.6 | NB-IoT / Attach Abnormal cases / Unsuccessful attach or Repeated rejects for network failures / Change of cell into a new tracking area / EPS services not allowed / Failure due to non integrity protection /UE initiated detach USIM removed from the UE / Detach procedure collision. | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.7a | NB-IoT / Normal tracking area update List of equivalent PLMNs in the TRACKING AREA UPDATE ACCEPT message / Normal tracking area update Rejected (IMSI invalid / Illegal ME / UE identity cannot be derived by the network / UE implicitly detached / PLMN not allowed | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.7b | NB-IoT / Normal tracking area update Rejected ( Tracking area not allowed / No suitable cells in tracking area / Roaming not allowed in this tracking area / Congestion) / UE initiated detach Abnormal case Change of cell into a new tracking area | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.8 | NB-IoT / TRACKING AREA UPDATE REJECT / Change of cell into a new tracking area / Access barred due to access class control or NAS signalling connection establishment rejected by the network / Success or fail after several attempts due to no network response / TA belongs to TAI list and status is UPDATED / Tracking area updating and detach procedure collision. | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.9 | NB-IoT / UE in NB-S1 mode supporting CIoT Optimizations / Paging with not matching identity / Control Plane Service request Rejected (IMSI invalid / Illegal ME / EPS services not allowed / UE identity cannot be derived by the network / UE implicitly detached) | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.10 | NB-IoT / EPS NAS integrity and encryption / SNOW 3G | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.11 | NB-IoT / EPS NAS integrity and encryption / AES | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.12 | NB-IoT / EPS NAS integrity and encryption / ZUC | Rel-13 | C272 | UEs supporting NB-IoT and ZUC algorithms | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.13 | NB-IoT / Attach Procedure / Success / Last visited TAI, TAI list and equivalent PLMN list handling | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.14 | NB-IoT / Attach / Rejected / Tracking Area not allowed / Roaming not allowed in this tracking area / No suitable cells in tracking area | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.15 | NB-IoT / Normal tracking area update / low priority override | Rel-13 | C275 | UEs supporting NB-IoT and LAP and LAP override | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.16 | NB-IoT / Normal tracking area update / Rejected / EPS service not allowed / EPS services not allowed in this PLMN | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.17 | NB-IoT / Attach Success /Normal tracking area update accepted / Periodic tracking area update T3412 Extended Value / PSM | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.18 | NB-IoT / Attach & Normal tracking area update Procedure / Success / without Idle eDRX parameters / With Idle eDRX parameters / With and without Idle eDRX and PSM parameters | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.19 | Void |  |  |  | pc\_NB\_FDD |  |  |  |
| 22.5.20 | NB-IoT/ UE in NB-S1 mode supporting control plane data back-off timer / Service reject with extended wait time CP data / Release with extended wait time CP data / Attach accept with extended wait time CP data | Rel-14 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.21 | NB-IoT/APN rate control for MO exception data | Rel-14 | C342 | UEs supporting NB-IoT and APN rate control and additional APN rate control for exception data | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.22 | NB-IoT / Tracking area update/Inter-RAT change between NB-IoT and E-UTRA | Rel-14 | C323 | UEs supporting NB-IoT S1 and WB-S1 | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.5.23 | NB-IoT / NTN / GNSS position reporting / reject cause #78 "PLMN not allowed to operate at the present UE location" | Rel-17 | C412a | UEs supporting NB-IoT and (NTN access or NTN only access in NB-IoT) and NTN features in NGSO scenario in NB-IoT | pc\_NB\_FDD,  pc\_NB\_ntn\_Connectivity\_EPC  pc\_NB\_ntn\_only\_Connectivity\_EPC  pc\_NB\_ntn\_NGSO\_ScenarioSupport |  |  |  |
| 22.6.1 | NB-IoT / UE routing of uplinks packets / User Plane / UE requested PDN disconnect procedure accepted by the network | Rel-13 | C290 | UEs supporting NB-IoT, and S1-U Data Transfer | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.6.1a | NB-IoT / UE routing of uplinks packets / Control Plane | Rel-13 | C266 | UEs supporting NB-IoT | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.6.2 | NB-IoT / UE requested bearer resource modification accepted by the network / Default EPS bearer context | Rel-13 | C293 | UEs supporting NB-IoT ESM UE requested bearer resource modification procedure, and requesting PDN of type "IP" | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.6.3 | NB-IoT / UE requested bearer resource modification error handling (Resource modification not accepted by the network) / Expiry of timer T3481/ Default EPS bearer context | Rel-13 | C293 | UEs supporting NB-IoT, ESM UE requested bearer resource modification procedure and requesting PDN of type "IP" | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| 22.6.5 | NB-IoT / UE requested PDN connectivity procedure not accepted / UE requested PDN connectivity accepted Dual priority T3396 override UE requested PDN connectivity accepted / Dual priority / T3346 override | Rel-13 | C277 | UEs supporting NB-IoT and Multiple PDN and LAP and LAP override | pc\_NB\_FDD |  |  |  |
|  |  |  |  |  | pc\_NB\_TDD |  |  |  |
| **23** | **CIoT optimization for E-UTRA** |  |  |  |  |  |  |  |
| 23.1.1 | CIoT / Control Plane MO and MT IP and non-IP Data Transfer / Serving PLMN Rate Control / APN Rate Control | Rel-13 | C284 | UEs supporting E-UTRA and Control Plane CIoT in WB-S1 mode | pc\_eFDD, pc\_IPv4\_Link\_MTU\_Parameter, pc\_APN\_RateControl |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD, pc\_IPv4\_Link\_MTU\_Parameter, pc\_APN\_RateControl |  |  |  |
| 23.1.2 | CIoT Optimization / Control Plane / MT and MO SMS Data Transfer | Rel-13 | C284 | UEs supporting E-UTRA and Control Plane CIoT in WB-S1 mode | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 23.1.3 | CIoT Optimization / Control Plane / EDT | Rel-15 | C376 | UEs supporting E-UTRA and Control Plane CIoT and Control Plane EDT | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 23.2.1 | CIoT Optimization / User Plane | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CIoT optimisation in WB-S1 mode | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 23.2.2 | CIoT / RRC connection suspend-resume / Success / different cell | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CIoT optimisation in WB-S1 mode | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 23.2.3 | CIoT / RRC connection suspend-resume / Network reject / different cell | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CIoT optimisation in WB-S1 mode | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 23.2.4 | CIoT Optimization / User Plane / EDT | Rel-15 | C387 | UEs supporting E-UTRA and User Plane CIoT optimisation in WB-S1 mode and User Plane EDT | pc\_eFDD |  | Note 19 |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| **24** | **V2X** |  |  |  |  |  |  |  |
| 24.1.1 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission | Rel-14 | C309 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.2 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / Transmission | Rel-14 | C303 | UEs supporting V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing |  |  |  |  |
| 24.1.3 | V2X Sidelink Communication/ Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Reception | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.4 | V2X Sidelink Communication/ Pre-configured authorisation / Utilisation of the pre-configured resources / Reception | Rel-14 | C302 | UEs supporting V2X sidelink communication |  |  |  |  |
| 24.1.5 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / utilisation of the resources of (serving) cells/PLMNs / Transmission / RRC connection re-establishment | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using dynamic scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.6 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission / RRC connection reconfiguration with/without *v2x-CommTxPoolExceptional* in *mobilityControlInfoV2X* / Handover | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using dynamic scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.7 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / reception / RRC connection reconfiguration with v2x-CommRxPool in mobilityControlInfoV2X / handover | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using dynamic scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.8 | V2X Sidelink Communication / Pre-configured authorisation / UE camped on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of cells/PLMNs / Transmission based on zoning | Rel-14 | C312 | UEs supporting E-UTRA and V2X sidelink communication and zone based transmission resource pool selection | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.9 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / Transmission based on zoning | Rel-14 | C306 | UEs supporting V2X sidelink communication and zone based transmission resource pool selection |  |  |  |  |
| 24.1.10 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_CONNECTED on an E-UTRAN cell operating on the anchor carrier frequency for V2X configuration/ UE is scheduled to transmit V2X messages on the frequency used for V2X sidelink communication / Inter-frequency scheduled Transmission | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using dynamic scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.11 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_Connected on an E-UTRAN cell operating on the carrier frequency for V2X configuration/ UE measures CBR of configured Tx resource pools and report CBR results to eNB | Rel-14 | C311 | UEs supporting E-UTRA and V2X sidelink communication and CBR measurement and reporting | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.12 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency for V2X configuration/ UE transmits V2X sidelink communication using Tx parameters based on measured CBR and PPPP | Rel-14 | C311 | UEs supporting E-UTRA and V2X sidelink communication and CBR measurement and reporting | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.13 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_Connected on an E-UTRAN cell operating on the anchor carrier frequency for V2X configuration/ Utilisation of the SL SPS resources configured by eNB / Transmission | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using dynamic scheduling | pc\_eFDD |  |  |  |
| pc\_eTDD |
| 24.1.14 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE/RRC\_Connected on an E-UTRAN cell operating on the carrier frequency for V2X configuration / SLSS and MasterInformationBlock-SL-V2X message Transmission | Rel-14 | C310 | UEs supporting E-UTRA and V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.15 | V2X Sidelink Communication / Pre-configured authorisation / UE out of coverage on the frequency used for V2X sidelink communication and without inter-frequency V2X configuration on anchor carriers/ Operation with/without SyncRef UE / SLSS and MasterInformationBlock-SL-V2X message Transmission / syncPriority in SL-V2X-Preconfiguration is set to gnss | Rel-14 | C304 | UEs supporting V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication |  |  |  |  |
| 24.1.16 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / CBR measurement | Rel-14 | C305 | UEs supporting V2X sidelink communication and CBR measurement and reporting |  |  |  |  |
| 24.1.17 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / UE uses Tx resource pool which is associated with the synchronization reference source selected | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication | pc\_eFDD |  |  |  |
| pc\_eTDD |  |  |  |
| 24.1.18 | V2X Sidelink Communication / Pre-configured authorisation / UE out of coverage on the frequency used for V2X sidelink communication and without inter-frequency V2X configuration on anchor carriers/ operation with/without SyncRef UE / SLSS and MasterInformationBlock-SL-V2X message transmission / syncPriority in SL-V2X-Preconfiguration is set to eNB | Rel-14 | C304 | UEs supporting V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication |  |  |  |  |
| 24.1.19 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / CBR measurement / Transmission based on CR limit | Rel-14 | C328 | UEs supporting V2X sidelink communication and CBR measurement and reporting and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing |  |  |  |  |
| 24.1.20 | V2X Sidelink Communication / Pre-configured authorisation / UE in limited service state on the anchor carrier frequency provisioned for V2X configuration / Transmission | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.2.1 | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission / Partial sensing | Rel-14 | C343 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with partial sensing | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.2.2 | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission / Random selection | Rel-14 | C344 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication and not supporting PSCCH/PSSCH transmission using UE autonomous resource selection mode with partial sensing | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.2.3 | P2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / Transmission | Rel-14 | C345 | Pedestrian UEs supporting V2X sidelink communication |  |  |  |  |
| 24.2.4 | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC\_IDLE on an E-UTRAN cell operating on the anchor carrier frequency for V2X configuration/ UE transmits V2X sidelink communication using Tx parameters based on PPPP and configured CBR | Rel-14 | C346 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.3.1 | V2X Uplink Communication / UE in RRC\_Connected on an E-UTRAN cell / Utilisation of the UL SPS resources configured by eNB / Transmission | Rel-14 | C336 | UEs supporting E-UTRA and V2X communication Via Uu and multiple uplink SPS | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.3.2 | V2X Downlink Communication / UE in IDLE on an E-UTRAN cell / UE receives the V2X data via MBMS | Rel-14 | C337 | UEs supporting E-UTRA and MBMS and V2X communication Via Uu | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |
| 24.3.3 | V2X Downlink Communication / UE in IDLE on an E-UTRAN cell / UE receives the V2X data via SC-PTM | Rel-14 | C338 | UEs supporting E-UTRA and SC-PTM and V2X communication Via Uu | pc\_eFDD |  |  |  |
|  |  |  |  |  | pc\_eTDD |  |  |  |

Table 4-1a: Applicability of tests Conditions

|  |  |
| --- | --- |
| C01 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C01a IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/1 AND (A.4.5-2/3 OR A.4.5-2/4) AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A | |
| C01b IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/1 AND A.4.5-2/4 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A | |
| C02 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 THEN R ELSE N/A | |
| C02a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A | |
| C03 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/1 THEN R ELSE N/A | |
| C04 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 THEN R ELSE N/A | |
| C05 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C06 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C07 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/4 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C08F IF A.4.1-1/1 AND A.4.5-1a/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C08aF IF A.4.1-1/1 AND A.4.5-1a/5 AND A.4.4-1/122 THEN R ELSE N/A | |
| C08bF IF A.4.1-1/1 AND A.4.5-1a/5 THEN R ELSE N/A | |
| C08T IF A.4.1-1/2 AND A.4.5-1b/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C08aT IF A.4.1-1/2 AND A.4.5-1b/5 AND A.4.4-1/122 THEN R ELSE N/A | |
| C08bT IF A.4.1-1/2 AND A.4.5-1b/5 THEN R ELSE N/A | |
| C09F IF (A.4.1-1/1 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A | |
| C09T IF (A.4.1-1/2 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A | |
| C10F IF A.4.1-1/1 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C10T IF A.4.1-1/2 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C11F IF (A.4.1-1/1 AND A.4.5-1a/16 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A | |
| C11T IF (A.4.1-1/2 AND A.4.5-1b/16 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A | |
| C12 IF ( (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.3.2-2A/1 OR ((A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15) THEN R ELSE N/A | |
| C13F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/16 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C13T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/16 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C14F IF A.4.1-1/1 AND A.4.5-1a/5 AND A.4.5-1a/17 THEN R ELSE N/A | |
| C14T IF A.4.1-1/2 AND A.4.5-1b/5 AND A.4.5-1b/17 THEN R ELSE N/A | |
| C15F IF A.4.1-1/1 AND A.4.5-1a/3 AND A.4.5-1a/7 THEN R ELSE N/A | |
| C15T IF A.4.1-1/2 AND A.4.5-1b/3 AND A.4.5-1b/7 THEN R ELSE N/A | |
| C16F IF A.4.1-1/1 AND A.4.5-1a/7 THEN R ELSE N/A | |
| C16aF IF A.4.1-1/1 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C16T IF A.4.1-1/2 AND A.4.5-1b/7 THEN R ELSE N/A | |
| C16aT IF A.4.1-1/2 AND A.4.5-1b/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C17F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1a/22 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C17T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1b/22 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C18 IF (A.4.1-1/1 OR A.4.1-1/2) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A | |
| C19F IF A.4.1-1/1 AND A.4.5-1a/6 AND A.4.5-1a/7 AND NOT (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C19aF IF A.4.1-1/1 AND A.4.5-1a/6 AND A.4.5-1a/7 AND (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C19T IF A.4.1-1/2 AND A.4.5-1b/6 AND A.4.5-1b/7 AND NOT (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C19aT IF A.4.1-1/2 AND A.4.5-1b/6 AND A.4.5-1b/7 AND (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C20F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/16 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C20T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/16 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C21F IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C21T IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C21aF IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C21aT IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C22 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/3 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A | |
| C23 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/4 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A | |
| C24F IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/16 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C24T IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/16 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C25F IF A.4.1-1/1 AND A.4.1-1/4 AND A.4.5-1a/16 AND A.4.5-1a/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C25T IF A.4.1-1/2 AND A.4.1-1/4 AND A.4.5-1b/16 AND A.4.5-1b/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C26 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/1 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A | |
| C27 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND A.4.4-1/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C28F IF (A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1a/25) THEN R ELSE N/A | |
| C28T IF (A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1b/25) THEN R ELSE N/A | |
| C29F IF A.4.1-1/1 AND A.4.5-1a/7 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C29T IF A.4.1-1/2 AND A.4.5-1b/7 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C30F IF A.4.1-1/1 AND A.4.5-1a/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C30T IF A.4.1-1/2 AND A.4.5-1b/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C31F IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.5-1a/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C31T IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.5-1b/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C32F IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.5-1a/20 THEN R ELSE N/A | |
| C32T IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.5-1b/20 THEN R ELSE N/A | |
| C33F IF A.4.1-1/1 AND A.4.5-1a/20 THEN R ELSE N/A | |
| C33T IF A.4.1-1/2 AND A.4.5-1b/20 THEN R ELSE N/A | |
| C34 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/7 THEN R ELSE N/A | |
| C35 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 THEN R ELSE N/A | |
| C36F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/8 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C36T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/8 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C37 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.5-2/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C38F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/10 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C38T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/10 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C39F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C39T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C40F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C40T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C41 Void | |
| C42F IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/12 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C42T IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/12 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C44F IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C44T IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C45F IF (A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1a/25) THEN R ELSE N/A | |
| C45T IF (A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1b/25) THEN R ELSE N/A | |
| C46 IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.4-1/9 THEN R ELSE N/A | |
| C47 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-2/1 THEN R ELSE N/A | |
| C47a Void | |
| C48 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C49 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/10 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C50 Void | |
| C51 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/9 AND (A.4.4-1/12 OR A.4.4-1/13 OR A.4.4-1/14 OR A.4.4-1/15 OR A.4.4-1/93) THEN R ELSE N/A | |
| C52 Void | |
| C53 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.20/35 THEN R ELSE N/A | |
| C54 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/18 THEN R ELSE N/A | |
| C55 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/19 AND A.4.4-1/54 THEN R ELSE N/A | |
| C56 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C57 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C58F IF A.4.1-1/1 AND A.4.5-1a/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C58T IF A.4.1-1/2 AND A.4.5-1b/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C59 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C60 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C61F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1a/16 AND A.4.5-1a/22 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C61T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1b/16 AND A.4.5-1b/22 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C62 Void | |
| C63 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.5-1a/25 AND A.4.5-1a/30 AND A.4.5-1b/25 AND A.4.5-1b/30 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C64 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/20 THEN R ELSE N/A | |
| C64a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/20 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C65 Void | |
| C66 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/4 AND A.4.4-1/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C67 Void | |
| C68 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C69 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C70 Void | |
| C71 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 THEN R ELSE N/A | |
| C71a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C71b IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C72 Void | |
| C73 Void | |
| C74 Void | |
| C75 Void | |
| C76 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C77 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.5-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C78 Void | |
| C79 Void | |
| C80 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C80a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-1/49 AND A.4.4-1/103 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C81F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1a/8 AND [8]A.2/1 AND [8]A.3/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C81T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1b/8 AND [8]A.2/1 AND [8]A.3/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C82 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.5-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C83 Void | |
| C84 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND [8]A.3/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C85 Void | |
| C86 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/4 THEN R ELSE N/A | |
| C86a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/4 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C87 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/5 THEN R ELSE N/A | |
| C87a Void | |
| C87b IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C88 Void | |
| C89 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C90F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C90T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C91F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C91T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C92F IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C92T IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C93F IF A.4.1-1/1 AND A.4.1-1/4 AND A.4.5-1a/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C93T IF A.4.1-1/2 AND A.4.1-1/4 AND A.4.5-1b/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C94 Void | |
| C95 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C96F IF A.4.1-1/1 AND A.4.5-1a/10 AND A.4.4-2/2 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C96T IF A.4.1-1/2 AND A.4.5-1b/10 AND A.4.4-2/2 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C97 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 THEN R ELSE N/A | |
| C97A IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 AND A.4.4-2/16 THEN R ELSE N/A | |
| C98 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/18 AND A.4.4-1/30 THEN R ELSE N/A | |
| C99F IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C99T IF A.4.1-1/2 AND A.4.4-1/51 AND A.4.5-1b/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C100F IF A.4.1-1/1 AND A.4.4-1/50 AND A.4.5-1a/7 THEN R ELSE N/A | |
| C100T IF A.4.1-1/2 AND A.4.4-1/50 AND A.4.5-1b/7 THEN R ELSE N/A | |
| C101 Void | |
| C102 Void | |
| C103 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/1 OR A.4.3.2-2/1) THEN R ELSE N/A | |
| C104 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-1/31 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C105F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1a/8 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C105T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1b/8 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C106 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/34 AND A.4.4-2/2 THEN R ELSE N/A | |
| C107F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.4-1/52 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C107T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.4-1/52 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C108 Void | |
| C109 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND (A.4.4-1/35 OR A.4.4-1/36) THEN R ELSE N/A | |
| C109a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND (A.4.4-1/35 OR A.4.4-1/36) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C110F IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C110T IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C111F IF A.4.1-1/1 AND A.4.4-1/38 AND A.4.4-2/2 AND A.4.4-1/52 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C111T IF A.4.1-1/2 AND A.4.4-1/38 AND A.4.4-2/2 AND A.4.4-1/52 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C112F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/7 AND A.4.5-1a/8 AND A.4.5-1a/22 AND A.4.5-1a/27 AND A.4.4-1/32 AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C112T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/7 AND A.4.5-1b/8 AND A.4.5-1b/22 AND A.4.5-1b/27 AND A.4.4-1/32 AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C113 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 THEN R ELSE N/A | |
| C113a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113bF IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113bT IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113cF IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113cT IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113dF IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113dT IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113e IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113f IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A | |
| C113gF IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 AND A.4.3.3.3-2/2 THEN R ELSE N/A | |
| C113gT IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 AND A.4.3.3.3-2/2 THEN R ELSE N/A | |
| C114 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/39 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C115 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C116 Void | |
| C117F IF A.4.1-1/1 AND A.4.1-1/6 AND (([8]A.18a/14 AND [8]A.18a/18 AND [8]A.18a/22) OR ([8]A.18b/10 AND [8]A.18b/14)) AND A.4.5-1a/8 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C117T IF A.4.1-1/2 AND A.4.1-1/6 AND (([8]A.18a/14 AND [8]A.18a/18) OR ([8]A.18b/10 AND [8]A.18b/14)) AND A.4.5-1b/8 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C118F IF A.4.1-1/1 AND A.4.4-1/2 AND A.4.4-1/104 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C118T IF A.4.1-1/2 AND A.4.4-1/2 AND A.4.4-1/104 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C119F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/100 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C119T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/100 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C120F IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.4-1/40 AND A.4.4-1/41 THEN R ELSE N/A | |
| C120T IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.4-1/40 AND A.4.4-1/41 THEN R ELSE N/A | |
| C121 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C122 Void | |
| C123 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-2/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C124 Void | |
| C125 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND (A.4.4-2/5 OR (A.4.4-2/4 AND A.4.4-1/33)) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C126 IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/56 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C127 IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/57 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C128 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND (A.4.1-1/6 OR A.4.1-1/7) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C129 IF A.4.1-1/1 AND A.4.4-1/58 THEN R ELSE N/A | |
| C129a IF A.4.1-1/1 AND A.4.4-1/58 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C130 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.5-1a/25 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C131 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND NOT A.4.4-1/57 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C132 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C132a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.2-1/1 THEN R ELSE N/A | |
| C133 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-2/1 OR A.4.3.3.1-2/2) THEN R ELSE N/A | |
| C134F IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-3a/11 THEN R ELSE N/A | |
| C134T IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-3b/11 THEN R ELSE N/A | |
| C134aF IF A.4.1-1/1 AND A.4.3.3.2-1/1 AND A.4.5-3a/11 THEN R ELSE N/A | |
| C134aT IF A.4.1-1/2 AND A.4.3.3.2-1/1 AND A.4.5-3b/11 THEN R ELSE N/A | |
| C135 Void | |
| C136 Void | |
| C137 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C138 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.4-1/62 AND A.4.5-2/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C139 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/32 AND A.4.2.1.1-1/4 AND (A.4.5-1a/27 or A.4.5-1b/27) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C140 Void | |
| C141 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND A.4.4-2/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C142 IF A.4.1-1/1 AND A.4.1-1/2 THEN R ELSE N/A | |
| C142a IF A.4.1-1/1 AND A.4.1-1/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C143 IF A.4.4-1/2 AND A.4.4-1/49 AND A.4.4-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C144F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C144T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C145 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/65 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C146 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C147 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C148F IF A.4.1-1/1 AND A.4.5-1a/23 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C148T IF A.4.1-1/2 AND A.4.5-1b/23 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C149 Void | |
| C150 IF (((A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6) OR ((A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.1-1/7)) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C151 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 THEN R ELSE N/A | |
| C152F IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-3a/11 THEN R ELSE N/A | |
| C152T IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-3b/11 THEN R ELSE N/A | |
| C153 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND A.4.4-2/2 AND A.4.4-1/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C154F IF A.4.1-1/1 AND A.4.5-3a/15 THEN R ELSE N/A | |
| C154T IF A.4.1-1/2 AND A.4.5-3b/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155aF IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND A.4.3.3.3-1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155aT IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND A.4.3.3.3-1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155bF IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND A.4.3.3.2-1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C155bT IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND A.4.3.3.2-1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C156 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C157 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/69 THEN R ELSE N/A | |
| C157a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/69 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))THEN R ELSE N/A | |
| C157b IF A.4.1-1/2 AND A.4.4-1/69 AND A.4.3.2-2A/2 AND A.4.3.2-3A/2 THEN R ELSE N/A | |
| C158 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/70 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C159F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C159T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C160F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/7 AND A.4.5-1a/8 AND A.4.5-1a/22 AND A.4.5-1a/27 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C160T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/7 AND A.4.5-1b/8 AND A.4.5-1b/22 AND A.4.5-1b/27 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C161F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C161T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C162 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.3.3.3-2/1 AND A.4.3.3.3-2/2 THEN R ELSE N/A | |
| C163 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/29 AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C164 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/72 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A | |
| C165 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/3 AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C166F IF A.4.1-1/1 AND A.4.5-1a/14 THEN R ELSE N/A | |
| C166T IF A.4.1-1/2 AND A.4.5-1b/14 THEN R ELSE N/A | |
| C167F IF A.4.1-1/1 AND A.4.5-1a/14 AND A.4.5-1a/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C167T IF A.4.1-1/2 AND A.4.5-1b/14 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C168F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C168T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C169 Void | |
| C170 IF A.4.1-1/1 AND A.4.4-1/76 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C171 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/79 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C172 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.4-1/37 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C173 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/80 AND A.4.4-2/1 THEN R ELSE N/A | |
| C174 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/81 THEN R ELSE N/A | |
| C175 IF A.4.1-1/2 AND A.4.4-1A/2 THEN R ELSE N/A | |
| C176 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-1/1 THEN R ELSE N/A | |
| C177 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND NOT A.4.3.2-1/1 THEN R ELSE N/A | |
| C178 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 THEN R ELSE N/A | |
| C179 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/84 AND NOT A.4.4-1/138 THEN R ELSE N/A | |
| C179a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/84 AND NOT (A.4.4-1/138) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))THEN R ELSE N/A | |
| C180 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C181 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/85 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C182 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND [8]A.2/2 AND NOT A.4.2.1.1-1/4 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C183 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.4-1/33 OR A.4.4-1/145) THEN R ELSE N/A | |
| C184 IF ((A.4.1-1/1 AND A.4.1-2/1) OR (A.4.1-1/2 AND A.4.1-2/2)) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C184a IF ((A.4.1-1/1 AND A.4.1-2/1) OR (A.4.1-1/2 AND A.4.1-2/2)) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C185F IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.1-2/1 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C185T IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.1-2/2 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C186F IF (A.4.1-1/1 AND A.4.5-1a/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1a/25) THEN R ELSE N/A | |
| C186T IF (A.4.1-1/2 AND A.4.5-1b/25 AND A.4.1-2/2) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1b/25) THEN R ELSE N/A | |
| C187 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/86 THEN R ELSE N/A | |
| C188 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/87 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C189F IF A.4.1-1/1 AND A.4.5-1a/31 THEN R ELSE N/A | |
| C189T IF A.4.1-1/2 AND A.4.5-1b/31 THEN R ELSE N/A | |
| C189aF IF A.4.1-1/1 AND A.4.5-1a/31 AND [8]A.1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C189aT IF A.4.1-1/2 AND A.4.5-1b/31 AND [8]A.1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C189bF IF A.4.1-1/1 AND A.4.5-1a/31 AND((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C189bT IF A.4.1-1/2 AND A.4.5-1b/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C189cF IF A.4.1-1/1 AND A.4.5-1a/31 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C189cT IF A.4.1-1/2 AND A.4.5-1b/31 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C190 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-2/1 OR A.4.3.3.1-2/2) AND A.4.4-1A/3 THEN R ELSE N/A | |
| C191 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.3.3.3-2/1 AND A.4.4-1A/3 AND A.4.3.3.3-2/2 THEN R ELSE N/A | |
| C192 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.2-1/1 AND A.4.3.3.2-2/1 AND A.4.4-1A/3 THEN R ELSE N/A | |
| C193F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C193T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C194 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 AND A.4.4-1A/4 THEN R ELSE N/A | |
| C195 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 AND [8]A.10/37 AND A.4.4-2/1 THEN R ELSE N/A | |
| C196 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/19 AND A.4.4-1/54 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A | |
| C197 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND [8]A.10/31 AND A.4.4-1/91 AND A.4.4-2/1 THEN R ELSE N/A | |
| C198F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C198T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C199F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C199T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C200F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C200T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C201F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C201T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C202F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C202T IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C203 Void | |
| C203a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/62 AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C204 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A | |
| C205 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.4-1/94 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C206F IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/5 AND A.4.5-1d/2 AND A.4.5-1a/23 THEN R ELSE N/A | |
| C206T IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/5 AND A.4.5-1e/2 AND A.4.5-1b/23 THEN R ELSE N/A | |
| C207 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.2-1/1 AND A.4.3.3.2-2/1 THEN R ELSE N/A | |
| C208 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C209 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND (A.4.4-2/14 OR A.4.4-2/15) THEN R ELSE N/A | |
| C210 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND (A.4.4-2/11 OR A.4.4-2/13) AND NOT (A.4.4-2/14) THEN R ELSE N/A | |
| C211 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND A.4.4-2/14 THEN R ELSE N/A | |
| C212 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/97 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C212a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/97 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C213 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/98 THEN R ELSE N/A | |
| C214 Void | |
| C215 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/99 THEN R ELSE N/A | |
| C216F IF A.4.1-1/1 AND A.4.5-1a/4 AND A.4.5-1a/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C216T IF A.4.1-1/2 AND A.4.5-1b/4 AND A.4.5-1b/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C217 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C218 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND [45]A.12/41 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C219 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/33 AND [45]A.12/40 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C220 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/33 AND [45]A.12/40 AND [45]A.12/41 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C221 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND A.4.4-1/101 AND NOT A.4.4-1/102 THEN R ELSE N/A | |
| C222 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND A.4.4-1/101 AND A.4.4-1/102 THEN R ELSE N/A | |
| C223 IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C224 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.2-2/1 THEN R ELSE N/A | |
| C224a IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C224b IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-2/1 OR A.4.3.2-2A/1) THEN R ELSE N/A | |
| C224c IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C224d IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4/183 THEN R ELSE N/A | |
| C225 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/8 AND A.4.4-1/30 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C225a IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND A.4.2.1.1-1/8 AND A.4.4-1/30 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C226 Void | |
| C227 IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.4-1/107 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C228 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/51 AND NOT A.4.3.2-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C228a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/51 AND A.4.3.2-2/1 THEN R ELSE N/A | |
| C229 IF A.4.1-1/1 AND NOT A.4.5-1a/31 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C229a IF A.4.1-1/1 AND NOT A.4.5-1a/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C230 IF A.4.1-1/2 AND NOT A.4.5-1b/31 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C230a IF A.4.1-1/2 AND NOT A.4.5-1b/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C231 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/32 AND A.4.2.1.1-1/4 AND (A.4.5-1a/9 or A.4.5-1b/9) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C232 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND A.4.4-1/30 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C233 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/2 AND A.4.3.3-2/2 AND (A.4.4-1/108 OR A.4.4-1/109) AND A.4.4-1A/3 THEN R ELSE N/A | |
| C234 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.3.3-2/1 AND A.4.4-1/108 THEN R ELSE N/A | |
| C234a IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/108 THEN R ELSE N/A | |
| C235 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.3.3-2/1 AND A.4.4-1/109 THEN R ELSE N/A | |
| C235a IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/109 THEN R ELSE N/A | |
| C236 IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/1 THEN R ELSE N/A | |
| C237 IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/1 AND [45]A.15/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C238 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/110 THEN R ELSE N/A | |
| C239 Void | |
| C240 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/120 THEN R ELSE N/A | |
| C241 Void | |
| C242 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.3.3.3-2/2 THEN R ELSE N/A | |
| C243 Void | |
| C244 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/9 THEN R ELSE N/A | |
| C245 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/10 THEN R ELSE N/A | |
| C246 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/9 AND A.4.2.1.1-1/10 THEN R ELSE N/A | |
| C247 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 AND A.4.4-1/115 THEN R ELSE N/A | |
| C248 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/11 OR A.4.3.2-1/12 OR A.4.3.2-2/6 OR A.4.3.2-2/7 OR A.4.3.2-2/8 OR A.4.3.2-2/9 OR A.4.3.2-2/10 OR A.4.3.2-2/11 OR A.4.3.2-2/12 OR A.4.3.2-2/13 OR A.4.3.2-2/14 OR A.4.3.2-2/15 OR A.4.3.2-2/16) AND A.4.4-1/116 THEN R ELSE N/A | |
| C249 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND A.4.4-1/33 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C250 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 AND A.4.4-2/1 THEN R ELSE N/A | |
| C251 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/118 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C252 VOID | |
| C253 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/121 AND A.4.4-1/115 THEN R ELSE N/A | |
| C254 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A | |
| C254a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 THEN R ELSE N/A | |
| C254b IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.4-1/122 OR A.4.4-1/123) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C254c IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 THEN R ELSE N/A | |
| C254e IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND NOT A.4.3.2-2A/3 THEN R ELSE N/A | |
| C254e IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.2-2A/3 THEN R ELSE N/A | |
| C255 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/123 THEN R ELSE N/A | |
| C255a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/123 AND NOT A.4.3.2-2A/3 THEN R ELSE N/A | |
| C255b IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/123 AND A.4.3.2-2A/3 THEN R ELSE N/A | |
| C256 IF A.4.1-1/2 AND A.4.4-1/124 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C257 IF A.4.1-1/1 AND A.4.5-1a/31 AND A.4.4-1/125 AND A.4.3.3.3-1/1 THEN R ELSE N/A | |
| C258 IF A.4.1-1/2 AND A.4.5-1b/31 AND A.4.4-1/125 AND A.4.3.3.3-1/1 THEN R ELSE N/A | |
| C259 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/11 THEN R ELSE N/A | |
| C259cF IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259cT IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259dF IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259dT IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259e IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259f IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.2.1.1-1/11 AND A.4.4-1/126 AND A.4.4-1/127 THEN R ELSE N/A | |
| C259gF IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A | |
| C259gT IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A | |
| C259hF IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A | |
| C259hT IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A | |
| C260 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/128 THEN R ELSE N/A | |
| C261 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND [8]A.10/31 AND A.4.4-2/1 THEN R ELSE N/A | |
| C262 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/121 THEN R ELSE N/A | |
| C263 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/121 AND A.4.2.1.1-1/4 THEN R ELSE N/A | |
| C264 IF A.4.1-1/2 AND A.4.4-1/124 AND A.4.3.3.3-1/1 THEN R ELSE N/A | |
| C265 IF A.4.1-1/2 AND A.4.4-1/124 AND A.4.3.3.3-2/1 THEN R ELSE N/A | |
| C266 IF A.4.1-1/8 OR A.4.1-1/9 THEN R ELSE N/A | |
| C266a IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/98 THEN R ELSE N/A | |
| C267 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/12 THEN R ELSE N/A | |
| C268 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/7 AND A.4.4-1A/8 THEN R ELSE N/A | |
| C269 IF A.4.1-1/5 AND A.4.4-1/117 THEN R ELSE N/A | |
| C270 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4 -1/131 THEN R ELSE NA | |
| C271 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/199 THEN R ELSE N/A | |
| C272 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/99 THEN R ELSE N/A | |
| C273 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/121 THEN R ELSE N/A | |
| C274 IF (A.4.1-1/1 OR A.4.1-1/2 ) AND A.4.2.1.1-1/13 THEN R ELSE N/A | |
| C275 IF (A.4.1-1/8 OR A.4.1-1/9) AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A | |
| C276 Void | |
| C277 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/30 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A | |
| C278 Void | |
| C279 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/129 AND A.4.4-1/130 THEN R ELSE N/A | |
| C280 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/129 THEN R ELSE N/A | |
| C281 IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/139 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A | |
| C282 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/140 THEN R ELSE N/A | |
| C283 IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.20/35 AND NOT A.4.4-1/25 THEN R ELSE N/A | |
| C284 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 THEN R ELSE N/A | |
| C285 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/132 THEN R ELSE N/A | |
| C286 IF(A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2A/1) AND A.4.4-1/2 AND A.4.4-2/1 THEN R ELSE N/A | |
| C287 IF(A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2A/1) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/5 THEN R ELSE N/A | |
| C288 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1A/10 THEN R ELSE N/A | |
| C289 Void | |
| C290 IF (A.4.1-1/8 OR A.4.1-1/9) AND (A.4.4-1/132 OR A.4.4-1/144) THEN R ELSE N/A | |
| C291 IF (A.4.1-1/8 OR A.4.1-1/9) AND (A.4.4-1/132 OR A.4.4-1/144) AND A.4.4-1/99 THEN R ELSE N/A | |
| C292 Void | |
| C293 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-2/24 AND A.4.4-1/19 THEN R ELSE N/A | |
| C294 Void | |
| C295 IF(A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/14 THEN R ELSE N/A | |
| C296 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/5 OR A.4.3.2-1/6 OR A.4.3.2-1/7 OR A.4.3.2-1/9 OR A.4.3.2-1/10 OR A.4.3.2-1/11 OR A.4.3.2-1/12 OR A.4.3.2-2/10 OR A.4.3.2-2/11 OR A.4.3.2-2/13 OR A.4.3.2-2/14 OR A.4.3.2-2/15 OR A.4.3.2-2/16) AND A.4.4-1/159 THEN R ELSE N/A | |
| C297 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/11 OR A.4.3.2-1/12 OR A.4.3.2-2/8 OR A.4.3.2-2/10 OR A.4.3.2-2/11 OR A.4.3.2-2/13 OR A.4.3.2-2/14 OR A.4.3.2-2/15 OR A.4.3.2-2/16) AND A.4.4-1/159 AND A.4.4-1/116 THEN R ELSE N/A | |
| C298 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/160 THEN R ELSE N/A | |
| C299 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/161 THEN R ELSE N/A | |
| C300 Void | |
| C301 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3-1/1 OR A.4.3.3-1/2 OR A.4.3.3-1/3 OR A.4.3.3-1/4) AND (A.4.3.3-2/1 OR A.4.3.3-2/2) AND A.4.4-1/163 THEN R ELSE N/A | |
| C302 IF A.4.4-1/148 THEN R ELSE N/A | |
| C303 IF A.4.4-1/148 AND A.4.4-1/153 THEN R ELSE N/A | |
| C304 IF A.4.4-1/148 AND A.4.4-1/155 THEN R ELSE N/A | |
| C305 IF A.4.4-1/148 AND A.4.4-1/156 THEN R ELSE N/A | |
| C306 IF A.4.4-1/148 AND A.4.4-1/157 THEN R ELSE N/A | |
| C307 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 THEN R ELSE N/A | |
| C308 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/152 THEN R ELSE N/A | |
| C309 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/153 THEN R ELSE N/A | |
| C310 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/155 THEN R ELSE N/A | |
| C311 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/156 THEN R ELSE N/A | |
| C312 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/157 THEN R ELSE N/A | |
| C313 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/164 | |
| C314 IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A | |
| C314a IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/17 THEN R ELSE N/A | |
| C315 IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/16 AND [8]A.10/19 THEN R ELSE N/A | |
| C316 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND [45]A.12/54 AND [8]A.10/17 AND A.4.2.1.1-1/4 THEN R ELSE N/A | |
| C317 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND [45]A.12/55 AND [8]A.10/17 THEN R ELSE N/A | |
| C318 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A | |
| C319 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A | |
| C320 IF A.4.1-1/1 AND A.4.3.3-1/1 AND A.4.4-1/109 AND A.4.4-1/166 THEN R ELSE N/A | |
| C321 IF A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/166 THEN R ELSE N/A | |
| C322 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/165 THEN R ELSE N/A | |
| C323 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/8 OR A.4.1-1/9) THEN R ELSE N/A | |
| C324 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/120 AND A.4.4-1/169 THEN R ELSE N/A | |
| C325 IF A.4.4-1/173 THEN R ELSE N/A | |
| C326 IF A.4.4-1/172 THEN R ELSE N/A | |
| C327 IF (A.4.4-1/170 OR A.4.4-1/171) THEN R ELSE N/A | |
| C328 IF A.4.4-1/148 AND A.4.4-1/153 AND A.4.4-1/156 THEN R ELSE N/A | |
| C329 Void | |
| C330 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 THEN R ELSE N/A | |
| C331 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/70 THEN R ELSE N/A | |
| C332 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/176 THEN R ELSE N/A | |
| C333 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/70 AND A.4.4-1/176 THEN R ELSE N/A | |
| C334 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/161 THEN R ELSE N/A | |
| C335 Void | |
| C336 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/149 AND A.4.4-1/177 THEN R ELSE N/A | |
| C337 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 AND A.4.4-1/149 THEN R ELSE N/A | |
| C338 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/11 AND A.4.4-1/149 THEN R ELSE N/A | |
| C339 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/167 AND A.4.3.2-1A/2 THEN R ELSE N/A | |
| C340 Void | |
| C341 Void | |
| C342 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-2/27 AND A.4.4-2/31 THEN R ELSE N/A | |
| C343 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/154 AND A.4.4-1/178 THEN R ELSE N/A | |
| C344 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND NOT(A.4.4-1/154) AND A.4.4-1/178 THEN R ELSE N/A | |
| C345 IF A.4.4-1/148 AND A.4.4-1/178 THEN R ELSE N/A | |
| C346 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/178 THEN R ELSE N/A | |
| C347 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.3.2-1A/2 THEN R ELSE N/A | |
| C348 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1A/11 THEN R ELSE N/A | |
| C349 IF A.4.1-1/8 AND A.4.4-1A/12 THEN R ELSE N/A | |
| C350 IF A.4.1-1/8 AND A.4.2.1.1-1/15 THEN R ELSE N/A | |
| C351 IF A.4.1-1/8 AND A.4.2.1.1-1/11 AND (A.4.5-1a/3 or A.4.5-1b/3) AND (A.4.5-1a/7 or A.4.5-1b/7) THEN R ELSE N/A | |
| C352 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/179 THEN R ELSE N/A | |
| C353 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/179 AND A.4.4-1/180 THEN R ELSE N/A | |
| C354 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/11 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A | |
| C355 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/181 THEN R ELSE N/A | |
| C356 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/182 THEN R ELSE N/A | |
| C357 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/33 THEN R ELSE N/A | |
| C358 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/184 THEN R ELSE N/A | |
| C359 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/185 THEN R ELSE N/A | |
| C360 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/186 THEN R ELSE N/A | |
| C361 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/187 THEN R ELSE N/A | |
| C362 IF A.4.1-1/1 AND A.4.5-1a/7 OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1a/7) THEN R ELSE N/A | |
| C363 IF A.4.1-1/2 AND A.4.5-1b/7 OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1b/7) THEN R ELSE N/A | |
| C364 IF (A.4.1-1/1 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.5-1a/25) THEN R ELSE N/A | |
| C365 IF (A.4.1-1/2 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.5-1b/25) THEN R ELSE N/A | |
| C366 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND [8] A. 20/90 THEN R ELSE N/A | |
| C367 IF A.4.1-1/1 AND A.4.4-1/122 AND A.4.4-1/188 THEN R ELSE N/A | |
| C368 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/189 AND A.4.4-1/190 THEN R ELSE N/A | |
| C369 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/191 THEN R ELSE N/A | |
| C370 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/192 THEN R ELSE N/A | |
| C371 Void | |
| C372 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/195 THEN R ELSE N/A | |
| C373 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND (A.4.4-1/196 OR A.4.4-1/197) THEN R ELSE N/A | |
| C374 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.4-1/197 THEN R ELSE N/A | |
| C375 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.4-1/198 THEN R ELSE N/A | |
| C376 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 AND A.4.4-1/200 THEN R ELSE N/A | |
| C377 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/202 AND (A.4.4-1/132 OR A.4.4-1/144) THEN R ELSE N/A | |
| C378 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/203 AND A.4.4-1/204 THEN R ELSE N/A | |
| C379 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/203 AND A.4.4-1/204 AND NOT A.4.4-1/206 THEN R ELSE N/A | |
| C379a IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/203 AND A.4.4-1/205 THEN R ELSE N/A | |
| C380 IF A.4.1-1/1 AND A.4.4-1/203 AND A.4.4-1/206 THEN R ELSE N/A | |
| C381 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/203 AND A.4.4-1/205 AND A.4.4-1/207 THEN R ELSE N/A | |
| C382 IF A.4.1-1/2 AND A.4.4-1/203 AND A.4.4-1/205 AND A.4.4-1/208 THEN R ELSE N/A | |
| C383 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/203 AND A.4.4-1/204 AND A.4.4-1/205 AND A.4.4-1/209 THEN R ELSE N/A | |
| C384 IF (A.4.1-1/1) AND (A.4.4-1/122 OR A.4.4-1/123) AND (A.4.4-1/210) THEN R ELSE N/A | |
| C385 IF (A.4.1-1/1) AND (A.4.4-1/122 OR A.4.4-1/123) AND A.4.4-1/121 AND (A.4.4-1/210) THEN R ELSE N/A | |
| C386 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND A.4.4-2/1 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A | |
| C387 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 AND A.4.4-1/201 THEN R ELSE N/A | |
| C388 IF (A.4.1-1/1 OR A.4.1-1/2) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C389 IF A.4.1-1/1 AND A.4.1-1/2 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A | |
| C390 IF A.4.1-1/8 AND A.4.4-1/210 THEN R ELSE N/A | |
| C391 IF A.4.1-1/8 AND A.4.4-1/121 AND A.4.4-1/210 THEN R ELSE N/A | |
| C392 IF A.4.1-1/8 AND A.4.4-1/212 THEN R ELSE N/A | |
| C393 IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.5-1a/7 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A | |
| C394 IF A.4.1-1/2 AND A.4.4-1/51 AND A.4.5-1b/7 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A | |
| C395 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.5-1a/7 AND A.4.4-1/213 THEN R ELSE N/A | |
| C396 IF (A.4.1-1/8 OR A.4.1-1/9) AND A.4.4-1/199 AND (A.4.4-1/41 OR A.4.4-1/42 OR A.4.4-1/43 OR A.4.4-1/44 OR A.4.4-1/46 OR A.4.4-1/47 OR A.4.4-1/48) THEN R ELSE N/A | |
| C397 IF (A.4.1-1/1 OR A.4.1-1/2) AND [56] A.4.1-1/1 THEN R ELSE N/A | |
| C398 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/214 THEN R ELSE N/A | |
| C399 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/217 THEN R ELSE N/A | |
| C400 IF A.4.1-1/8 AND A.4.4-1/218 THEN R ELSE N/A | |
| C401 Void | |
| C402 IF A.4.1-1/8 AND A.4.4-1/219THEN R ELSE N/A | |
| C403 IF A.4.1-1/9 AND A.4.4-1A/17 THEN R ELSE N/A | |
| C404 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/220 THEN R ELSE N/A | |
| C405 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/216 | |
| C406 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND A.4.4-1/222 THEN R ELSE N/A | |
| C407 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND A.4.4-1/223 THEN R ELSE N/A | |
| C408 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.4-1/215 THEN R ELSE N/A | |
| C409 IF (A.4.1-1/1 OR A.4.1-1/2) AND [56] A.4.1-1/3 THEN R ELSE N/A | |
| C410 IF (A.4.1-1/1 OR A.4.1-1/2) AND [56] A.4.1-1/4 THEN R ELSE N/A | |
| C411 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 AND A.4.4-1/224 THEN R ELSE N/A | |
| C412 IF A.4.1-1/8 AND (A.4.4-1/230 OR A.4.4-1/KKK) AND (A.4.4-1/234 OR OR A.4.4-1/237) THEN R ELSE N/A | |
| C412a IF A.4.1-1/8 AND (A.4.4-1/230 OR A.4.4-1/KKK) AND A.4.4-1/237 THEN R ELSE N/A | |
| C413 IF A.4.1-1/8 AND (A.4.4-1/230 OR A.4.4-1/KKK) AND (A.4.4-1/234 OR A.4.4-1/237) AND A.4.4-1/231 AND A.4.4-1/233 THEN R ELSE N/A | |
| C414 IF A.4.1-1/1 AND (A.4.3.2-2A/1 OR A.4.3.2-2A/3) AND (A.4.4-1/XXX OR A.4.4-1/LLL) AND (A.4.4-1/BBB OR A.4.4-1/CCC) THEN R ELSE N/A | |
| C414a IF A.4.1-1/1 AND (A.4.3.2-2A/1 OR A.4.3.2-2A/3) AND (A.4.4-1/XXX OR A.4.4-1/LLL)AND A.4.4-1/CCC THEN R ELSE N/A | |
| C415 IF A.4.1-1/1 AND (A.4.3.2-2A/1 OR A.4.3.2-2A/3) AND (A.4.4-1/XXX OR A.4.4-1/LLL) AND (A.4.4-1/BBB OR A.4.4-1/CCC) AND A.4.4-1/YYY AND A.4.4-1/AAA THEN R ELSE N/A | |
| C416 IF A.4.4-1/25 AND A.4.4-1/235 AND A.4.4-1/117 THEN R ELSE N/A | |
| C417 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 AND A.4.4-1/225 THEN R ELSE N/A | |
| C418 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 AND A.4.4-1/227 THEN R ELSE N/A | |
| C419 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/236 | |

<End of modified section>