ETSI TS 131 117 V18.0.0 (2025-06)

5G;
Universal Subscriber Identity Module Application Toolkit (USAT) application behavioural test specification (3GPP TS 31.117 version 18.0.0 Release 18)

Reference
RTS/TSGC-0631117vi00

Keywords
5G

ETSI

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

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

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI IPR online database.

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™**, **LTE™** and **5G™** logo are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM**® and the GSM logo are trademarks registered and owned by the GSM Association.

Legal Notice

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

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

The cross reference between 3GPP and ETSI identities can be found at 3GPP to ETSI numbering cross-referencing.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

Foreword

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

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

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

In the present document, modal verbs have the following meanings:

shall indicates a mandatory requirement to do something

shall not indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

should indicates a recommendation to do something

should not indicates a recommendation not to do something

may indicates permission to do something

need not indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

can indicates that something is possible

cannot indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

will indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

will not indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

might indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

might not indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

is (or any other verb in the indicative mood) indicates a statement of fact

is not (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

Introduction

The present document defines application behavioural tests for USIM Application Toolkit functionality on an ME with a non-removable UICC/USIM where no access to the physical UICC-Terminal interface can be granted when interacting with a 3GPP network.

The aim of the present document is to ensure the correct behaviour of a UE interfacing with a 3GPP network whilst it is proved that USIM Application Toolkit specific data and functionality is used wherever indicated, similar to application tests defined in TS 31.124 [2] but without direct access to the UICC-Terminal interface.

The present document does not define any aspects related to the administrative management phase of the UICC. Any internal technical realisation of either the UICC or the terminal is only specified where these are important for the verification of specific behaviour. Application specific details for applications residing on an UICC are specified in the respective application specific documents.

1 Scope

The present document describes behavioural tests for the USIM Application Toolkit implemented in Mobile Equipment (ME) or Mobile Stations (MS) supporting a non-removable UICC only within the 3GPP digital cellular telecommunications system, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [7] and ETSI ETS 300 406 [20].

This document shall provide alternative verification and testing approaches for test cases initially defined in TS 31.124 [2] or ETSI TS 102 384 respectively. To guarantee the highest possible reliability, the verification of existing requirements shall be done using methods defined by ETSI or 3GPP.

A 3GPP ME may support functionality that is not required by 3GPP, but the requirements to do so are outside of the scope of 3GPP. Thus, the present document does not contain tests or references to ETSI TS 102 384 [3] tests for features which are out of scope of 3GPP.

Due to possible limitations in profile handling and updating it is not intended to use the test cases defined within this document with MEs implemented in accordance with Rel-12 or earlier.

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

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

[2] 3GPP TS 31.124: " Mobile Equipment (ME) conformance test specification; Universal Subscriber Identity Module Application Toolkit (USAT) conformance test specification".

[3] ETSI TS 102 384 V17.0.0: "Smart cards; UICC-Terminal interface; Card Application Toolkit (CAT) conformance specification".

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

[5] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing".

[6] 3GPP TS 34.108: "Common test environments for User Equipment (UE) conformance testing".

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

[8] ETSI TS 102 221 V18.0.0: "UICC-Terminal interface; Physical and logical characteristics".

[9] GSMA TS.48 v5.0: "Generic eUICC Test Profile for Device Testing".

[10] ETSI TS 103 666-1 V17.3.0: "Smart Secure Platform (SSP); Part 1: General characteristics".

[11] ETSI TS 103 666-2 V17.0.0: "Smart Secure Platform (SSP); Part 2: Integrated SSP (iSSP) characteristics".

[12] ETSI TS 103 666-3 V16.0.0: "Smart Secure Platform (SSP); Part 3: Embedded SSP (eSSP) Type 1 characteristics".

[13] 802.11-2016: "IEEE Standard for Information technology—Telecommunications and information exchange between systems Local and metropolitan area networks—Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications".

[14] ETSI TS 102 225 V18.1.0: "Secured packet structure for UICC based applications".

[15] ETSI TS 102 226 V18.3.0: "Remote APDU structure for UICC based applications".

[16] 3GPP TS 27.007: "AT command set for User Equipment (UE) ".

[17] 3GPP TS 31.130: "(U)SIM Application Programming Interface (API); (U)SIM API for Java™Card".

[18] Trusted Connectivity Alliance: "eUICC Profile Package: Interoperable Format Technical Specification Version 3.3.1".

[19] ETSI TS 102 241V18.0.0: "UICC Application Programming Interface (UICC API) for Java Card™".

[20] 3GPP TS 31.111: "Universal Subscriber Identity Module (USIM) Application Toolkit (USAT)".

[21] Void

[22] ETSI TS 102 671 V18.1.0: "Machine to Machine UICC; Physical and logical characteristics"

[23] GSMA SGP.22 v3.1: "RSP Technical specification".

[24] 3GPP TS 38.508-1: "5GS; User Equipment (UE) conformance specification; Part 1: Common test environment".

3 Definitions of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in TR 21.905 [1], TS 31.124 [2] and the following apply:

E-UTRAN: term used for E-UTRAN in WB-S1 mode.

NAA: term used in ETSI TS 102 384 [3] refers to the USIM application.

NB-IoT: term used for E-UTRAN in NB-S1 mode.

nrUICC: non-removable Universal Integrated Circuit Card. The non-removable card hosting the nrUSIM application embedded or integrated into a ME.

nrUSIM: non-removable Universal Subscriber Identity Module, i.e. a USIM application or equivalent functionality embedded or integrated into a ME.

Terminal: term used in ETSI TS 102 384 [3], refers to the Mobile Equipment (ME).

TT: Test Tool: collective term for requirements fulfilling but not clearly specified test environment.

UICC: term used in ETSI TS 102 384 [3] refers to the USIM card.

A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

3.2 Symbols

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

bx	Bit x of byte (leftmost bit is MSB)
Bn	Byte No. n

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] TS 31.124 [2] and the following apply:

CR	Conformance Requirement
EUT	Equipment Under Test
SA	Suitability Assessment
TT	Test Tool
USAT	USIM Application Toolkit

An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

3.4 Mobile station definition and configurations

The mobile station definition and configurations specified in TS 34.108 [6] and TS 36.508 [5] shall apply, unless otherwise specified in the present clause.

3.5 Coding Conventions

For the purposes of the present document, the following coding conventions apply:

All lengths are presented in bytes, unless otherwise stated. Each byte B is represented by eight bits b8 to b1, where b8 is the most significant bit (MSB) and b1 is the least significant bit (LSB). In each representation, the leftmost bit is the MSB.

In the UICC, all bytes specified as RFU shall be set to '00' and all bits specifies as RFU shall be set to '0'. If the USIM application exists on a UICC or is built on a generic telecommunications card, then other values may apply for the non-USIM applications. The values will be defined in the appropriate specifications for such cards and applications. These bytes and bits shall not be interpreted by a ME in a 3GPP session.

The coding of all data objects in the present document is according to ETSI TS 102 221 [8]. All data objects are BER-TLV except if otherwise defined.

3.6 Applicability

3.6.1 Applicability of the present document

The present document applies to user equipment that supports the USIM Application Toolkit optional feature where the UICC-terminal interface is not accessible and communication on the UICC-terminal interface cannot be traced.

3.6.2 Applicability of the individual tests

Table B.1 lists the optional, conditional, or mandatory features for which the supplier of the implementation states the support. As pre-condition the supplier of the implementation shall state the support of possible options in accordance with table A.1 . ME default configuration in accordance with table A.2 and declare what testing options are supported in table A.3 of the present document.

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

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

M mandatory – the capability is required to be supported.

O optional – the capability may be supported or not.

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

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

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

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

The "Additional test case execution recommendation" column shows the status of the entries as follows:

A applicable - the test is applicable according to the corresponding entry in the "Rxx ME" column

R redundant – the test has to be considered as redundant when the corresponding E-UTRAN/EPC related test of the present document has been validated and successfully executed. In that case the requirement may be verified by means of the E-UTRAN/EPC functionality only.

AERi Additional test case Execution Recommendation – with respect to the above listed definitions of ("A") and ("R") the test is applicable ("A") or redundant ("R") depending on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities.

References to items

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

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

3.6.3 Declaration of options specific for testing of terminals with non-removable USIM

To identify a suitable test environment the support of some specific features is required. The supplier of the implementation shall state the support of possible options in table A.3.

Table A.3: Declaration of supported testing options

Item	Option	Status	Support	Mnemonic
1	Support of UTRAN access	O		O_UTRAN
2	Support of E-UTRAN access	O		O_E-UTRAN
3	Support of NB-IoT access only	O		O_NB-IoT
4	Support of 5G Core Network	O		O_5GC
5	Support of New Radio access	O		O_5G-NR
6	Support of RSP(SGP.22 [23])	C003		O_RSP22
7	Support of AT+CSIM	O		O_AT+CSIM
8	ME supports non-removable UICC only (see NOTE 1)	O		O_NON-REMOVABLE_UICC_ONLY
9	Support of UICC and USIM API for Java Card (see NOTE 2)	O		O_JAVA_CARD_API
10	Support of USAT functionality (see NOTE 3)	O		O_USAT
11	Support of Satellite New Radio access	O		O_5G-SAT-NR
NOTE1: 'ME supports non-removable UICC only' means that access to the physical card interface as defined in ETSI TS 102 221 [8] is not available NOTE 2: The UE shall claim to support the Java Card API if test relevant functions as defined in the examples in Annex A, clauses A.1 and A.2 are supported. NOTE 3: The support of the USAT as defined here requires the support of the UICC API defined in ETSI TS 102 241 [19] and the USIM API defined in TS 31.130 [17]				

3.6.4 Applicability to user equipment

The applicability to user equipment supporting the non-removable USIM is specified in table B.1, regardless of references to complete tests, test purposes, conformance requirements or test methods from TS 31.124 [2] the applicability of the individual test cases is defined within the present document.

To execute tests defined in the present document, methods to trigger proactive commands from the non-removable USIM are required. The verification of conformance requirements can be done by using and (explicit verification methods only. The support of explicit verification methods by the EUT (UE) has to be declared in accordance with table A.4 (see clause 3.6.5). Test sequence specific declarations of methods required to be supported are listed in the Applicability table – Table B.1.

If tests require verification of proactive commands, the TT should be enabled to trigger required proactive commands using a test toolkit applet loaded on to the non-removable UICC.

Network dependent test cases on UEs supporting NB-IoT shall be verified by accessing the NB System Simulator (NB-SS).

3.6.5 Supported additional explicit verification methods

To execute tests defined in the present document, methods to trigger proactive commands from the non-removable USIM are required. The verification of conformance requirements can be done by using and (explicit verification methods only. The support of explicit verification methods by the EUT (UE) has to be declared in accordance with table A.4 (see clause 3.6.5). Test sequence specific declarations of methods required to be supported are listed in the Applicability table – Table B.1.

If tests require verification of proactive commands, TT shall be able to trigger required proactive commands using a test toolkit applet loaded on to the non-removable UICC.

Network dependent test cases on UEs supporting NB-IoT shall be verified by accessing the NB System Simulator (NB-SS).

Table A.4: Test Options Declaration

Item	Option	Status	Support	Mnemonic
1	Support of Toolkit Test Events (see note)	O		O_Toolkit_Test_Events
2	Support of seamless test APDU logging via Baseband (see note)	O		O_Seamless_APDU_Logging
3	Interface for file contents verification	O		O_File_Contents_Verification
NOTE: The support of the SSP Test Tool Interface (ETSI TS 103 834) is handled like the support of seamless test APDU logging via Baseband or for Test Toolkit Event based testing. Specific information may be added to test cases where needed.				

For details on these options see clauses 4.1.3, to 4.1.6 of the present document.

3.7 Table of optional features

Support of several features is optional or release dependent for the user equipment. However, if a UE states conformance with a specific 3GPP release, it is mandatory for the UE to support all mandatory functions of that release, as stated in table A.1.The supplier of the implementation shall state the support of possible options in table A.1

Table A.1: Options

Item	Option	Status	Support	Mnemonic
For the declaration of the support of optional features the contents for Table A.1 as defined in TS 31.124 [2] clause 3.3 shall be used.				

3.8 Applicability table

Table B.1: Applicability of tests

Test#	Seq.	Title	from Rel.	to Rel. (see note)	Appl.	Terminal Profile	NW Dep.	Exec. parameter	Support
10.3.1	**PROFILE DOWNLOAD**								
	1	PROFILE DOWNLOAD	Rel-13		M	E.1/1			
10.3.2	**Contents of the TERMINAL PROFILE command**								
	1	Contents of the TERMINAL PROFILE command	Rel-13		M	E.1/1			
10.3.3	**Servicing of Proactive UICC Commands**								
	1	Servicing of Proactive UICC Commands	Rel-13		M				
10.4	**Proactive UICC commands**								
10.4.1	**DISPLAY TEXT**								
10.4.1.1	DISPLAY TEXT (Normal)								
	1.1	Unpacked	Rel-13		C177	E.1/17 AND E.1/110			
	1.2	Screen busy	Rel-13		C177	E.1/17 AND E.1/110			
	1.3	High priority	Rel-13		C177	E.1/17 AND E.1/110			
	1.4	Packed	Rel-13		C177	E.1/17 AND E.1/110			
	1.5	Clear after delay	Rel-13		C177	E.1/17 AND E.1/110			
	1.6	Long text up to 160 bytes	Rel-13		C177	E.1/17 AND E.1/110			
	1.7	Backwards move in USIM session	Rel-13		C177 AND C178	E.1/17 AND E.1/110 AND E.1/111			
	1.8	Session terminated by user	Rel-13		C177 AND C178	E.1/17 AND E.1/110 AND E.1/111			
	1.9	Command not understood by ME	Rel-13		C177	E.1/17 AND E.1/110			
10.4.1.2	DISPLAY TEXT (Support of "No response from user")								
	2.1	No response from user	Rel-13		C120 AND C177 AND C178	E.1/17 AND E.1/110 AND E.1/111			
10.4.1.3	DISPLAY TEXT (Display of extension text)								
	3.1	Extension Text	Rel-13		C177	E.1/17 AND E.1/16 AND E.1/110			
10.4.1.4	DISPLAY TEXT (Sustained text)								
	4.1	Sustained text; unpacked data 8 bits	Rel-13		C177	E.1/17 AND E.1/65 AND E.1/110			
	4.2	Sustained text; clear message after delay	Rel-13		C177	E.1/17 AND E.1/65 AND E.1/110			
	4.3	Sustained text; wait for user MMI to clear	Rel-13		C177 AND C178	E.1/17 AND E.1/65 AND E.1/110 AND E.1/111			
10.4.1.5	DISPLAY TEXT (Display of icons)								
	5.1	Display of basic icon; self-explanatory	Rel-13		C108 AND C177	E.1/17 AND E.1/110			
	5.2	Display of colour icon	Rel-13		C171 AND C177	E.1/17 AND E.1/110			
	5.3	Display of basic icon - not self-explanatory	Rel-13		C108 AND C177	E.1/17 AND E.1/110			
10.4.1.6	DISPLAY TEXT (UCS2 display in Cyrillic)								
	6.1	UCS2 display in Cyrillic	Rel-13		C118 AND C177	E.1/17 AND E.1/15 AND E.1/110			
10.4.1.7	DISPLAY TEXT (Variable Time out)								

	7.1	Variable Timeout	Rel-13		C126 AND C177 AND C178	E.1/17 AND E.1/137 AND E.1/110 AND E.1/111			
10.4.1.8	DISPLAY TEXT (Support of Text Attribute)								
	8.1	Text attribute – left alignment	Rel-13		C153 AND C177	E.1/17 AND E.1/124 AND E.1/217 AND E.1/110			
	8.2	Text attribute – center alignment	Rel-13		C154 AND C177	E.1/17 AND E.1/124 AND E.1/218 AND E.1/110			
	8.3	Text attribute – right alignment	Rel-13		C155 AND C177	E.1/17 AND E.1/124 AND E.1/219 AND E.1/110			
	8.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C177	E.1/17 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110			
	8.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C177	E.1/17 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110			
	8.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C177	E.1/17 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110			
	8.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C177	E.1/17 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110			
	8.8	Text attribute – underlined on	Rel-13		C162 AND C159 AND C177	E.1/17 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110			
	8.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C177	E.1/17 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110			
	8.10	Text attribute – foreground and background colours	Rel-13		C164 AND C165 AND C177	E.1/17 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110			
10.4.1.9	DISPLAY TEXT (UCS2 display in Chinese)								
	9.1	UCS2 display in Chinese	Rel-13		C143 AND C177	E.1/17 AND E.1/15 AND E.1/110			
10.4.1.10	DISPLAY TEXT (UCS2 display in Katakana)								
	10.1	UCS2 display in Katakana	Rel-13		C145 AND C177	E.1/17 AND E.1/15 AND E.1/110			
10.4.2	**GET INKEY**								
10.4.2.1	GET INKEY (Normal)								
	1.1	Prompt unpacked	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	1.2	Prompt packed	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	1.3	Backwards move in UICC session	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	1.4	Session terminated by user	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	1.5	SMS alphabet	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND			

						E.1/111			
	1.6	Long text up to 160 bytes	Rel-13		C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
10.4.2.2	GET INKEY (No response from User)								
	2.1	No response from user	Rel-13		C120 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
10.4.2.3	GET INKEY (UCS2 display in Cyrillic)								
	3.1	UCS2 display in Cyrillic	Rel-13		C118 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
	3.2	UCS2 display; Long text up to 70 chars in Cyrillic	Rel-13		C118 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.2.4	GET INKEY (UCS2 entry in Cyrillic)								
	4.1	UCS2 entry in Cyrillic	Rel-13		C105 AND C177 AND C178	E.1/18 AND E.1/14 AND E.1/110 AND E.1/111			
10.4.2.5	GET INKEY ("Yes/No" Response)								
	5.1	"Yes/No" response	Rel-13		C177 AND C178	E.1/18 AND E.1/60 AND E.1/110 AND E.1/111			
10.4.2.6	GET INKEY (Display of icons)								
	6.1	Basic icon - self-explanatory	Rel-13		C108 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	6.2	Basic icon - non self-explanatory	Rel-13		C108 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	6.3	Colour icon - self-explanatory	Rel-13		C171 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
	6.4	Colour icon - non self-explanatory	Rel-13		C171 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
10.4.2.7	GET INKEY (Help Information)								
	7.1	Help information	Rel-13		C107 AND C177 AND C178	E.1/18 AND E.1/110 AND E.1/111			
10.4.2.8	GET INKEY (Variable Time out)								
	8.1	Variable Timeout	Rel-13		C126 AND C177 AND C178	E.1/18 AND E.1/140 AND E.1/110 AND E.1/111			
10.4.2.9	GET INKEY (Support of Text Attribute)								
	9.1	Text attribute – left alignment	Rel-13		C153 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/217 AND E.1/110 AND E.1/111			
	9.2	Text attribute – center alignment	Rel-13		C154 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/218 AND E.1/110 AND E.1/111			
	9.3	Text attribute – right alignment	Rel-13		C155 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/219 AND E.1/110 AND E.1/111			
	9.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110 AND E.1/111			
	9.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110 AND			

						E.1/111			
	9.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110 AND E.1/111			
	9.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110 AND E.1/111			
	9.8	Text attribute – underlined on	Rel-13		C162 AND C159 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110 AND E.1/111			
	9.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110 AND E.1/111			
	9.10	Text attribute – foreground and background colours	Rel-13		C164 AND C165 AND C177 AND C178	E.1/18 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110 AND E.1/111			
10.4.2.10	GET INKEY (UCS2 display in Chinese)								
	10.1	UCS2 display in Chinese	Rel-13		C143 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
	10.2	UCS2 display in Chinese; Long text up to 70 chars	Rel-13		C143 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.2.11	GET INKEY (UCS2 entry in Chinese)								
	11.1	UCS2 entry in Chinese	Rel-13		C142 AND C177 AND C178	E.1/18 AND E.1/14 AND E.1/110 AND E.1/111			
10.4.2.12	GET INKEY (UCS2 display in Katakana)								
	12.1	UCS2 display in Katakana	Rel-13		C145 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
	12.2	UCS2 display in Katakana; Long text up to 70 chars	Rel-13		C145 AND C177 AND C178	E.1/18 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.2.13	GET INKEY (UCS2 entry in Katakana)								
	13.1	UCS2 entry in Katakana	Rel-13		C144 AND C177 AND C178	E.1/18 AND E.1/14 AND E.1/110 AND E.1/111			
10.4.3	**GET INPUT**								
10.4.3.1	GET INPUT (Normal)								
	1.1	Digits only	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.2	Input packed	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.3	SMS alphabet	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.4	Hidden input	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.5	Min / max acceptable length	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			

	1.6	Backwards move in UICC session	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.7	Session terminated by user	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.8	Prompt text up to 160 bytes	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.9	SMS default alphabet; ME to echo text; packing not required	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	1.10	Null length for the text string	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
10.4.3.2	GET INPUT (No response from User)								
	2.1	No response from user	Rel-13		C120 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
10.4.3.3	GET INPUT (UCS2 display in Cyrillic)								
	3.1	Text sting coding in UCS2 in Cyrillic	Rel-13		C118 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
	3.2	Max length for the text string coding in UCS2 in Cyrillic	Rel-13		C118 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.3.4	GET INPUT (UCS2 entry in Cyrillic)								
	4.1	Character set from UCS2 alphabet in Cyrillic	Rel-13		C105 AND C177 AND C178	E.1/19 AND E.1/14 AND E.1/110 AND E.1/111			
	4.2	Character set from UCS2 alphabet in Cyrillic; max length	Rel-13		C105 AND C177 AND C178	E.1/19 AND E.1/14 AND E.1/110 AND E.1/111			
10.4.3.5	GET INPUT (Default text)								
	5.1	Default text for the input	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	5.2	Default text for the input; max length	Rel-13		C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
10.4.3.6	GET INPUT (Display of icons)								
	6.1	Basic icon; self-explanatory	Rel-13		C108 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	6.2	Basic icon; non self-explanatory	Rel-13		C108 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	6.3	Colour icon; self-explanatory	Rel-13		C171 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
	6.4	Colour icon; non self-explanatory	Rel-13		C171 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
10.4.3.7	GET INPUT (Help Information)								
	7.1	8 bit data Message; help information available	Rel-13		C107 AND C177 AND C178	E.1/19 AND E.1/110 AND E.1/111			
10.4.3.8	GET INPUT (Support of Text Attribute)								
	8.1	Text attribute– left alignment	Rel-13		C153 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/217 AND E.1/110 AND E.1/111			
	8.2	Text attribute – center alignment	Rel-13		C154 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/218 AND E.1/110 AND E.1/111			
	8.3	Text attribute – right alignment	Rel-13		C155 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/219 AND E.1/110 AND			

						E.1/111			
	8.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110 AND E.1/111			
	8.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110 AND E.1/111			
	8.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110 AND E.1/111			
	8.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110 AND E.1/111			
	8.8	Text attribute – underlined on	Rel-13		C162 AND C159 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110 AND E.1/111			
	8.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110 AND E.1/111			
	8.10	Text attribute – foreground and background colours	Rel-13		C164 AND C159 AND C177 AND C178	E.1/19 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110 AND E.1/111			
10.4.3.9	GET INPUT (UCS2 display in Chinese)								
	9.1	Text string - UCS2 coding in Chinese	Rel-13		C143 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
	9.2	Text string - max length UCS2 coding in Chinese	Rel-13		C143 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.3.10	GET INPUT (UCS2 entry in Chinese)								
	10.1	Character set from UCS2; Chinese characters	Rel-13		C142 AND C177 AND C178	E.1/19 AND E.1/14 AND E.1/110 AND E.1/111			
	10.2	Character set from UCS2; max length; Chinese characters	Rel-13		C142 AND C177 AND C178	E.1/19 AND E.1/14 AND E.1/110 AND E.1/111			
10.4.3.11	GET INPUT (UCS2 display in Katakana)								
	11.1	Text string - UCS2 coding in Katakana	Rel-13		C145 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
	11.2	Text string - max length UCS2 coding in Katakana	Rel-13		C145 AND C177 AND C178	E.1/19 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.3.12	GET INPUT (UCS2 entry in Katakana)								
	12.1	Character set from UCS2; Katakana	Rel-13		C144 AND C177 AND C178	E.1/19 AND E.1/14 AND E.1/110 AND E.1/111			
	12.2	Character set from UCS2;	Rel-13		C144 AND	E.1/19 AND			

		max length; Katakana			C177 AND C178	E.1/14 AND E.1/110 AND E.1/111			
10.4.4	**MORE TIME**								
	1.1	MORE TIME	Rel-13		M	E.1/20			
10.4.5	**PLAY TONE**								
10.4.**5.2**	PLAY TONE (UCS2 display in Cyrillic)								
	2.1	UCS2 display in Cyrillic	Rel-13		C118 AND C179	E.1/21 AND E.1/15 AND E.1/110		TCEP001	
10.4.5.3	PLAY TONE (Display of icons)								
	3.1	Basic icon; self-explanatory	Rel-13		C108 AND C179	E.1/21 AND E.1/110		TCEP001	
	3.2	Basic icon; non self-explanatory	Rel-13		C108 AND C179	E.1/21 AND E.1/110		TCEP001	
	3.3	Colour icon; self-explanatory	Rel-13		C171 AND C179	E.1/21 AND E.1/110		TCEP001	
	3.4	Colour icon; non self-explanatory	Rel-13		C171 AND C179	E.1/21 AND E.1/110		TCEP001	
10.4.5.4	PLAY TONE (Support of Text Attribute)								
	4.1	Text attribute – left alignment	Rel-13		C153 AND C179	E.1/21 AND E.1/124 AND E.1/218 AND E.1/110		TCEP001	
	4.2	Text attribute – center alignment	Rel-13		C154 AND C179	E.1/21 AND E.1/124 AND E.1/218 AND E.1/110		TCEP001	
	4.3	Text attribute – right alignment	Rel-13		C155 AND C179	E.1/21 AND E.1/124 AND E.1/219 AND E.1/110		TCEP001	
	4.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C179	E.1/21 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110		TCEP001	
	4.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C179	E.1/21 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110		TCEP001	
	4.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C179	E.1/21 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110		TCEP001	
	4.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C179	E.1/21 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110		TCEP001	
	4.8	Text attribute – underlined on	Rel-13		C162 AND C159 AND C179	E.1/21 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110		TCEP001	
	4.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C179	E.1/21 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110		TCEP001	
	4.10	Text attribute– foreground and background colours	Rel-13		C164 AND C165 AND C179	E.1/21 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110		TCEP001	
10.4.5.5	PLAY TONE (UCS2 display in Chinese)								
	5.1	UCS2 display in Chinese	Rel-13		C143 AND C179	E.1/21 AND E.1/15 AND E.1/110		TCEP001	
10.4.5.6	PLAY TONE (UCS2 display in Katakana)								
	6.1	UCS2 display in Katakana	Rel-13		C145 AND C179	E.1/21 AND E.1/15 AND E.1/110		TCEP001	
10.4.6	**POLL INTERVAL**								

	1.1		Rel-13		M	E.1/221.1			
10.4.7	**REFRESH**								
10.4.**7.1**	REFRESH (Normal)								
	1.3	USIM initialization and file change notification of ADN	Rel-13		C177 AND C178	E.1/24 AND E.1/110 AND E.1/111			
	1.5	UICC reset	Rel-13		M	E.1/24			
10.4.**7.**3	REFRESH (Steering of roaming)								
	3.3	Steering of roaming; E-UTRAN	Rel-13		C222	E.1/24 AND E.1/135 AND E.1/236	E-USS OR NB-SS		
	3.4	Steering of roaming; NG-RAN	Rel-16		C231	E.1/24 AND E.1/236	NG-SS only		
10.4.**7.**4	REFRESH (AID)								
	4.1	Refresh with AID; E-UTRAN	Rel-13		C202	E.1/24	E-USS only		
10.4.**7.**5	REFRESH (IMSI changing procedure, E-UTRAN)								
	5.1	UICC Reset for IMSI Changing procedure; E-UTRAN	Rel-13		C222	E.1/24	E-USS OR NB-SS		
	5.2	3G Session Reset for IMSI Changing procedure; E-UTRAN	Rel-13		C222	E.1/24	E-USS OR NB-SS		
10.4.**7.**6	REFRESH (IMSI changing procedure, NG-RAN)								
	6.1	UICC Reset for IMSI Changing procedure; NG-RAN	Rel-16		C231	E.1/24 OR (E.1/24 AND E.1/256)	NG-SS only		
	6.2	3G Session Reset for IMSI Changing procedure; NG-RAN	Rel-16		C231	E.1/24 OR (E.1/24 AND E.1/256)	NG-SS only		
	6.3	REFRESH, USIM Application Reset for IMSI Changing procedure, NG-RAN	Rel-16		C231	E.1/24 OR (E.1/24 AND E.1/256)	NG-SS only		
	6.4	REFRESH, reject 3G Session Reset for IMSI Changing procedure during mobile originated call, NG-RAN	Rel-16		C231	E.1/24 OR (E.1/24 AND E.1/256)	NG-SS only		
10.4.**7.**7	REFRESH (SUPI_NAI changing procedure, NG-RAN)								
	7.1	UICC Reset for SUPI_NAI Changing procedure; NG-RAN	Rel-16		C231 AND C233	E.1/24	NG-SS only		
	7.2	3G Session Reset for SUPI_NAI Changing procedure; NG-RAN	Rel-16		C231 AND C233	E.1/24	NG-SS only		
	7.3	REFRESH, USIM Application Reset for SUPI_NAI Changing procedure, NG-RAN	Rel-16		C231 AND C233	E.1/24	NG-SS only		
	7.4	REFRESH, reject 3G Session Reset for SUPI_NAI Changing procedure during mobile originated call, NG-RAN	Rel-16		C231 AND C233	E.1/24	NG-SS only		
10.4.**7.**8	REFRESH (USIM File Change Notification for Generic Bootstrapping Procedure Request, NG-RAN)								
	8.1	REFRESH, USIM File Change Notification for Generic Bootstrapping Procedure Request, NG-RAN	Rel-15		C238	E.1/24 OR E.1/173	NG-SS only		
10.4.8	**SET UP MENU and ENVELOPE MENU SELECTION**								
10.4.**8.1**	SET UP MENU (Normal) and ENVELOPE MENU SELECTION								
	1.1	Set up; menu selection; replace and remove menu	Rel-13		C177 AND C178	E.1/30 AND E.1/4 AND E.1/110 AND E.1/111			
	1.2	Large menu	Rel-13		C177 AND C178	E.1/30 AND E.1/4 AND E.1/110 AND E.1/111			
10.4.8.2	SET UP MENU (Help request support) and ENVELOPE MENU SELECTION								
	2.1	Help information	Rel-13		C107 AND C177 AND C178	E.1/30 AND E.1/4 AND E.1/110 AND			

						E.1/111			
10.4.8.3	SET UP MENU (Help request support) and ENVELOPE MENU SELECTION								
	3.1	Next action indicator	Rel-13		C177 AND C178	E.1/30 AND E.1/110 AND E.1/111			
10.4.8.4	SET UP MENU (Display of icons) and ENVELOPE MENU SELECTION								
	4.1	Basic icon; not self-explanatory	Rel-13		C172 AND C177 AND C178	E.1/30 AND E.1/110 AND E.1/111			
	4.2	Basic icon; self-explanatory	Rel-13		C172 AND C177 AND C178	E.1/30 AND E.1/110 AND E.1/111			
10.4.8.5	SET UP MENU (Soft keys support) and ENVELOPE MENU SELECTION								
	5.1	Soft key preferred	Rel-13		C112 AND C177 AND C178	E.1/30 AND E.1/74 AND E.1/110 AND E.1/111			
10.4.8.6	SET UP MENU (Support of Text Attribute) and ENVELOPE MENU SELECTION								
	6.1	Text attribute – left alignment	Rel-13		C153 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/217 AND E.1/110 AND E.1/111			
	6.2	Text attribute – center alignment	Rel-13		C154 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/218 AND E.1/110 AND E.1/111			
	6.3	Text attribute – right alignment	Rel-13		C155 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/219 AND E.1/110 AND E.1/111			
	6.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110 AND E.1/111			
	6.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110 AND E.1/111			
	6.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110 AND E.1/111			
	6.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110 AND E.1/111			
	6.8	Text attribute – underlined on	Rel-13		C162 AND C159 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110 AND E.1/111			
	6.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110 AND E.1/111			
	6.10	Text attribute – foreground and background colours	Rel-13		C164 AND C165 AND C177 AND C178	E.1/30 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110 AND E.1/111			
10.4.8.7	SET UP MENU (UCS2 display in Cyrillic) and ENVELOPE MENU SELECTION								

	7.1	UCS2 display in Cyrillic	Rel-13		C118 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.8.8	SET UP MENU (UCS2 display in Chinese) and ENVELOPE MENU SELECTION								
	8.1	UCS2 display in Chinese	Rel-13		C143 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.8.9	SET UP MENU (UCS2 display in Katakana) and ENVELOPE MENU SELECTION								
	9.1	UCS2 display in Katakana	Rel-13		C145 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.9	**SELECT ITEM**								
10.4.9.1	SELECT ITEM (Mandatory features for ME supporting SELECT ITEM)								
	1.1	Mandatory features	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	1.2	Large menu	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	1.3	Call option	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	1.4	Backward move	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	1.5	"Y" successful	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	1.6	Large menu	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.2	SELECT ITEM (Next action support)								
	2.1	Next action indicator	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.3	SELECT ITEM (Default item support)								
	3.1	Default selected	Rel-13		C177 AND C178 AND C194	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.4	SELECT ITEM ((Help request support)								
	4.1	Help request	Rel-13		C107 AND C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.5	SELECT ITEM (Icons support)								
	5.1	Basic icon; not self-explanatory	Rel-13		C172 AND C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	5.2	Basic icon; self-explanatory	Rel-13		C172 AND C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.6	SELECT ITEM (Presentation style)								
	6.1	Presentation as a choice of navigation options	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
	6.2	Presentation as a choice of data values	Rel-13		C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.7	SELECT ITEM (Soft keys support)								
	7.1	Soft keys	Rel-13		C112 AND C177 AND C178	E.1/25 AND E.1/73 AND E.1/110 AND E.1/111			
10.4.9.8	SELECT ITEM (Support of "No response from user")								
	8.1	No Response from user	Rel-13		C120 AND C177 AND C178	E.1/25 AND E.1/110 AND E.1/111			
10.4.9.9	SELECT ITEM (Support of Text Attribute)								
	9.1	Text attribute – left alignment	Rel-13		C153 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/217 AND E.1/110 AND E.1/111			

	9.2	Text attribute – center alignment	Rel-13		C154 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/218 AND E.1/110 AND E.1/111			
	9.3	Text attribute – right alignment	Rel-13		C155 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/219 AND E.1/110 AND E.1/111			
	9.4	Text attribute – large font size	Rel-13		C157 AND C156 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110 AND E.1/111			
	9.5	Text attribute – small font size	Rel-13		C158 AND C156 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110 AND E.1/111			
	9.6	Text attribute – bold on	Rel-13		C160 AND C159 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110 AND E.1/111			
	9.7	Text attribute – italic on	Rel-13		C161 AND C159 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110 AND E.1/111			
	9.8	Text attribute – underline on	Rel-13		C162 AND C159 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110 AND E.1/111			
	9.9	Text attribute – strikethrough on	Rel-13		C163 AND C159 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110 AND E.1/111			
	9.10	Text attribute – foreground and background colours	Rel-13		C164 AND C165 AND C177 AND C178	E.1/25 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110 AND E.1/111			
10.4.9.10	SELECT ITEM (UCS2 display in Cyrillic)								
	10.1	UCS2 in Cyrillic characters; 0x80 UCS2 coding	Rel-13		C118 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
	10.2	UCS2 in Cyrillic characters; 0x81 UCS2 coding	Rel-13		C118 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
	10.3	UCS2 in Cyrillic characters; 0x82 UCS2 coding	Rel-13		C118 AND C177 AND C178	E.1/39 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.9.11	SELECT ITEM (UCS2 display in Chinese)								
	11.1	UCS2 display in Chinese	Rel-13		C143 AND C177 AND C178	E.1/25 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.9.12	SELECT ITEM (UCS2 display in Katakana)								
	12.1	UCS2 in Katakana characters; 0x80 UCS2 coding	Rel-13		C145 AND C177 AND C178	E.1/25 AND E.1/15 AND E.1/110 AND E.1/111			
	12.2	UCS2 in Katakana	Rel-13		C145 AND	E.1/25 AND			

		characters; 0x81 UCS2 coding			C177 AND C178	E.1/15 AND E.1/110 AND E.1/111			
	12.3	UCS2 in Katakana characters; 0x82 UCS2 coding	Rel-13		C145 AND C177 AND C178	E.1/25 AND E.1/15 AND E.1/110 AND E.1/111			
10.4.10	**SEND SHORT MESSAGE**								
10.4.**10.7**	SEND SHORT MESSAGE (IMS)								
	7.1	SMS-over-IP; E-UTRAN	Rel-13		C196	E.1/26 AND E.1/110	E-USS only	TCEP001	
10.4.10.8	SEND SHORT MESSAGE (Over SGs in E-UTRAN).								
	8.1	Send Short Message over SGs; E-UTRAN	Rel-13		C220	E.1/26 AND E.1/110	E-USS OR NB-SS	TCEP001	
10.4.11	**SEND SS**								
10.4.12	**SEND USSD**								
10.4.13	**SET UP CALL**								
10.4.14	**POLLING OFF**								
	1.2	POLLING OFF; E-UTRAN	Rel-13		C222	E.1/23	E-USS OR NB-SS		
	1.3	POLLING OFF, NG-RAN	Rel-13		C231	E.1/23	NG-SS only		
10.4.15	**PROVIDE LOCAL INFORMATION**								
	1.2	IMEI	Rel-13		M	E.1/31			
	1.4	Date; time and time zone	Rel-13		M	E.1/59			
	1.5	Language setting	Rel-13		C217	E.1/68			
	1.9	IMEISV	Rel-13		M	E.1/143			
	1.10	Network Search Mode	Rel-13		M	E.1/144	E-USS		
	1.11	Charge State of the Battery	Rel-13		C139	E.1/170			
	1.14	Access Technology; E-UTRAN	Rel-13		C222	E.1/72	E-USS OR NB-SS		
	1.15	E-UTRAN Intra-Frequency Measurements	Rel-13		C190	E.1/183	E-USS only		
	1.16	E-UTRAN Inter-Frequency Measurements	Rel-13		C190	E.1/183	E-USS only		
	1.17	E-UTRAN Local Info (MCC; MNC; TAC & E-UTRAN Cell ID)	Rel-13		C222	E.1/31 AND E.1/135	E-USS OR NB-SS		
	1.18	Discovery of surrounding CSG cells	Rel-13		C195	E.1/242	E-USS only		
	1.22	NG-RAN Local Info (MCC; MNC; TAC & NG-RAN Cell ID)	Rel-15		C231	E.1/31	NG-SS only		
	1.23	Access Technology; NG-RAN	Rel-15		C231	E.1/72	NG-SS only		
	1.24	Slices Information	Rel-16		C231	E.1/284	NG-SS only		
	1.25	Slices Information; no served Slice	Rel-16		C231	E.1/284	NG-SS only		
	1.26	Slices Information; several served Slices	Rel-16		C231	E.1/284	NG-SS only		
	1.27	NG-RAN Timing advance	Rel-16		C231	E.1/305	NG-SS only		
	1.28	PROVIDE LOCAL INFORMATION; NG-RAN Intra-Frequency Measurements	Rel-16		C231	E.1/305	NG-SS only		
	1.29	PROVIDE LOCAL INFORMATION; NG-RAN Inter-Frequency Measurements	Rel-16		C231	E.1/305	NG-SS only		
	1.30	PROVIDE LOCAL INFORMATION; CAG information list	Rel-17		C235	E.1/287	NG-SS only		
	1.31	PROVIDE LOCAL INFORMATION, Satellite NG-RAN PrimaryTiming advance	Rel-17		C236	E.1/305	SAT-NG-SS only		
	1.32	PROVIDE LOCAL INFORMATION, Access Technology, Satellite NG-RAN	Rel-17		C236	E.1/72	SAT-NG-SS only		
10.4.16	**SET UP EVENT LIST**								
10.4.17	**PERFORM CARD APDU**								
10.4.**17.1**	PERFORM CARD APDU (Normal)								
	1.1	Additional card inserted; Select MF and Get	Rel-13		C109	E.1/51			

		Response							
	1.2	Additional card inserted; Select DF GSM; Select EF_{PLMN}; Update Binary; Read Binary on EF_{PLMN}	Rel-13		C109	E.1/51			
	1.3	Additional card inserted; card powered off	Rel-13		C109	E.1/51			
	1.4	No card inserted; card powered off	Rel-13		C109	E.1/51			
	1.5	Invalid card reader identifier	Rel-13		C109	E.1/51			
10.4.17.2	PERFORM CARD APDU (Detachable card reader)								
	2.1	Detachable reader	Rel-13		C116	E.1/51			
10.4.18	**POWER OFF CARD**								
10.4.18.1	POWER OFF CARD (Normal)								
	1.1	Additional card inserted	Rel-13		C109	E.1/50			
10.4.18.2	POWER OFF CARD (Detachable card reader)								
	2.1	Detachable card reader	Rel-13		C116	E.1/50			
10.4.19	**POWER ON CARD**								
10.4.19.1	POWER ON CARD (Normal)								
	1.1	Additional card inserted	Rel-13		C109	E.1/49			
10.4.19.2	POWER ON CARD (Detachable card reader)								
	2.1	Detachable card reader	Rel-13		C116	E.1/49			
10.4.20	**GET READER STATUS**								
10.4.20.1	GET READER STATUS (Normal)								
	1.1	Additional card inserted; card powered	Rel-13		C109	E.1/52			
	1.2	Additional card inserted; card not powered	Rel-13		C109	E.1/52			
10.4.20.2	GET READER STATUS (Detachable card reader)								
	2.1	Detachable card reader	Rel-13		C116	E.1/52			
10.4.21	**TIMER MANAGEMENT and ENVELOPE TIMER EXPIRATION**								
10.4.21.1	TIMER MANAGEMENT (Normal)								
	1.1	Start timer 1 several times; get the current value of the timer and deactivate the timer successfully	Rel-13		M	E.1/57 AND E.1/58			
	1.2	Start timer 2 several times; get the current value of the timer and deactivate the timer successfully	Rel-13		M	E.1/57 AND E.1/58			
	1.3	Start timer 8 several times; get the current value of the timer and deactivate the timer successfully	Rel-13		M	E.1/57 AND E.1/58			
	1.4	Try to get the current value of a timer which is not started: action in contradiction with the current timer state	Rel-13		M	E.1/57 AND E.1/58			
	1.5	Try to deactivate a timer which is not started: action in contradiction with the current timer state	Rel-13		M	E.1/57 AND E.1/58			
	1.6	Start 8 timers successfully	Rel-13		M	E.1/57 AND E.1/58			
10.4.21.2	ENVELOPE TIMER EXPIRATION (Normal)								
	2.1	Pending proactive UICC command	Rel-13		M	E.1/6 AND E.1/57			
	2.2	USIM application toolkit busy	Rel-13		M	E.1/6 AND E.1/57 AND E.1/20			
10.4.22	**SET UP IDLE MODE TEXT**								
10.4.23	**RUN AT COMMAND**								
10.4.23.1	RUN AT COMMAND (Normal)								
	1.1	No alpha identifier presented	Rel-13		C110	E.1/62			
	1.2	Null data alpha identifier presented	Rel-13		C110	E.1/62			
	1.3	Alpha identifier presented	Rel-13		C110 AND C177	E.1/62 AND E.1/110			
10.4.23.2	RUN AT COMMAND (Icon support)								
	2.1	Basic icon; self-explanatory	Rel-13		C114 AND C177	E.1/62 AND E.1/110			
	2.2	Colour icon; self-	Rel-13		C173 AND	E.1/62 AND			

		explanatory			C177	E.1/110			
	2.3	Basic icon; non self-explanatory	Rel-13		C114 AND C177	E.1/62 AND E.1/110			
	2.4	Colour icon; non self-explanatory	Rel-13		C173 AND C177	E.1/62 AND E.1/110			
	2.5	Basic icon non self-explanatory; no alpha identifier presented	Rel-13		C110 AND C153 AND C177	E.1/62 AND E.1/110			
10.4.23.3	RUN AT COMMAND (Support of Text Attribute)								
	3.1	Text attribute – left alignment	Rel-13		C110 AND C154 AND C177	E.1/62 AND E.1/124 AND E.1/217 AND E.1/110			
	3.2	Text attribute – center alignment	Rel-13		C110 AND C155 AND C177	E.1/62 AND E.1/124 AND E.1/218 AND E.1/110			
	3.3	Text attribute – right alignment	Rel-13		C110 AND C157 AND C156 AND C177	E.1/62 AND E.1/124 AND E.1/219 AND E.1/110			
	3.4	Text attribute – large font size	Rel-13		C110 AND C158 AND C156 AND C177	E.1/62 AND E.1/124 AND E.1/221 AND E.1/220 AND E.1/110			
	3.5	Text attribute – small font size	Rel-13		C110 AND C160 AND C159 AND C177	E.1/62 AND E.1/124 AND E.1/222 AND E.1/220 AND E.1/110			
	3.6	Text attribute – bold on	Rel-13		C110 AND C161 AND C159 AND C177	E.1/62 AND E.1/124 AND E.1/225 AND E.1/226 AND E.1/110			
	3.7	Text attribute – italic on	Rel-13		C110 AND C162 AND C159 AND C177	E.1/62 AND E.1/124 AND E.1/225 AND E.1/227 AND E.1/110			
	3.8	Text attribute – underline on	Rel-13		C110 AND C163 AND C159 AND C177	E.1/62 AND E.1/124 AND E.1/225 AND E.1/228 AND E.1/110			
	3.9	Text attribute – strikethrough on	Rel-13		C110 AND C164 AND C165 AND C177	E.1/62 AND E.1/124 AND E.1/225 AND E.1/229 AND E.1/110			
	3.10	Text attribute – foreground and background colours	Rel-13		C110 AND C164 AND C165 AND C177	E.1/62 AND E.1/124 AND E.1/230 AND E.1/231 AND E.1/110			
10.4.23.4	RUN AT COMMAND (UCS2 display in Cyrillic)								
	4.1	UCS2 display in Cyrillic	Rel-13		C149 AND C177	E.1/62 AND E.1/15 AND E.1/110			
10.4.23.5	RUN AT COMMAND (UCS2 display in Chinese)								
	5.1	UCS2 display in Chinese	Rel-13		C150 AND C177	E.1/62 AND E.1/15 AND E.1/110			
10.4.23.6	RUN AT COMMAND (UCS2 display in Katakana								
	6.1	UCS2 display in Katakana	Rel-13		C151 AND C177	E.1/62 AND E.1/15 AND E.1/110			
10.4.24	**SEND DTMF**								
10.4.25	**LANGUAGE NOTIFICATION**								
	1.1	Specific language notification	Rel-13		C181 AND C218	E.1/70			
	1.2	Non-specific language notification	Rel-13		C181 AND C218	E.1/70			
10.4.26	**LAUNCH BROWSER**								
10.4.26.8	LAUNCH BROWSER (NG-RAN bearer)								

	8.1	Only NG-RAN bearer specified and gateway proxy identity	Rel-16		C111 AND C231	E.1/71 AND E.1/98 AND E.1/110 AND E.1/111	NG-SS only		
	8.2	Trigger LAUNCH BROWSER by CALL CONTROL	Rel-16		C111 AND C231	E.1/71 AND E.1/110 AND E.1/111	NG-SS only		
	8.3	Trigger LAUNCH BROWSER by MT Call event	Rel-16		C111 AND C231	E.1/71 AND E.1/110 AND E.1/111	NG-SS only		
	8.4	Trigger LAUNCH BROWSER during mobile originated call	Rel-16		C111 AND C231	E.1/71 AND E.1/110 AND E.1/111	NG-SS only		
	8.5	Trigger LAUNCH BROWSER during mobile terminated call	Rel-16		C111 AND C231	E.1/71 AND E.1/110 AND E.1/111	NG-SS only		
10.4.27	**OPEN CHANNEL**								
10.4.27.6	OPEN CHANNEL (related to E-UTRAN)								
	6.1	Immediate link establishment; E-UTRAN; bearer type '02'	Rel-13		C224	E.1/89 AND E.1/135	E-USS OR NB-SS		
	6.2	Immediate link establishment; E-UTRAN; bearer type '0B'	Rel-13		C182	E.1/89 AND E.1/135	E-USS only		
	6.3	E-UTRAN; bearer type '02'; immediate link establishment with Network Access Name; with alpha identifier	Rel-13		C224	E.1/89 AND E.1/110 AND E.1/111 AND E.1/135	E-USS OR NB-SS		
	6.4	E-UTRAN bearer type '03'; immediate link establishment with alpha identifier; user did not accept the proactive command	Rel-13		C182 AND C177	E.1/89 AND E.1/110 AND E.1/111 AND E.1/135	E-USS OR NB-SS		
	6.5	E-UTRAN; bearer type '03' – default EPS bearer; immediate link establishment	Rel-13		C182	E.1/89 AND E.1/135	E-USS OR NB-SS		
	6.6	BIP is not a 3GPP PS data off exempt service	Rel-14		C228	E.1/2 AND E.1/89 AND E.1/135	E-USS		
	6.7	BIP is a 3GPP PS data off exempt service	Rel-14		C228	E.1/2 AND E.1/89 AND E.1/135	E-USS		
	6.8	Maximum number of open channel requests	Rel-14			E.1/89 AND E.1/135	E-USS OR NB-SS		
10.4.27.7	OPEN CHANNEL (UICC Access to IMS)								
	7.1	OPEN CHANNEL for IMS; IARI list stored on the USIM	Rel-13		C207	E.1/33 AND E.1/89 AND E.1/247 AND E.1/249	E-USS		
10.4.27.8	OPEN CHANNEL (related to NG-RAN)								
	8.1	NG-RAN bearer type '03' – default PDU Session; immediate link establishment	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	8.2	NG-RAN bearer type '0C'; immediate link establishment	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	8.3	NG-RAN bearer type '0C'; after receiving policy update for URSP from network	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	8.4	NG-RAN bearer type '0C'; PDU Session is already available for the same DNN	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	8.5	NG-RAN bearer type '02' – default PDU Session; immediate link establishment	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	8.6	NG-RAN bearer type '0B' – default PDU Session; immediate link establishment	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		

10.4.27.9	OPEN CHANNEL (related to Satellite NG-RAN)								
	9.1	OPEN CHANNEL, immediate link establishment, Satellite NG-RAN, bearer type '03' – Default PDU Session	Rel-17		C236	E.1/89	SAT-NG-SS only		
	9.2	OPEN CHANNEL, immediate link establishment, Satellite NG-RAN, bearer type '0C'	Rel-17		C236	E.1/89	SAT-NG-SS only		
	9.3	OPEN CHANNEL, Satellite NG-RAN, bearer type '0C', after receiving policy update for URSP from network	Rel-17		C236	E.1/89	SAT-NG-SS only		
	9.4	OPEN CHANNEL, Satellite NG-RAN, bearer type '0C', PDU Session is already available for the same DNN	Rel-17		C236	E.1/89	SAT-NG-SS only		
	9.5	OPEN CHANNEL, immediate link establishment, Satellite NG-RAN, bearer type '02'	Rel-17		C236	E.1/89	SAT-NG-SS only		
	9.6	OPEN CHANNEL, immediate link establishment, Satellite NG-RAN, bearer type '0B'	Rel-17		C236	E.1/89	SAT-NG-SS only		
10.4.28	**CLOSE CHANNEL**								
10.4.28.3	CLOSE CHANNEL (E-UTRAN/EPC)								
	3.1	Default EPS bearer	Rel-13		C224	E.1/89 AND E.1/90	E-USS OR NB-SS		
	3.2	EPS bearer with APN different from default APN	Rel-13		C224	E.1/89 AND E.1/90	E-USS OR NB-SS	TCEP001, TCEP002	
	3.3	Command qualifier set to 1	Rel-13		C230	E.1/89 AND E.1/90	E-USS OR NB-SS		
10.4.28.4	CLOSE CHANNEL (NG-RAN)								
	4.1	NG-RAN; bearer type '03' – default PDU Session	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	4.2	NG-RAN; bearer type '0C'	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
10.4.29	**RECEIVE DATA**								
	1.2	Already opened channel – E-UTRAN; APN different from default	Rel-13		C182	E.1/89 AND E.1/91 AND E.1/92	E-USS OR NB-SS		
	1.3	Length of received data exceeds the buffer size.	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
	1.4	Receive 65535 Bytes of data	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
	1.5	Send refresh after receiving data.	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
	1.7	2 consecutive RECEIVE DATA	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
10.4.30	**SEND DATA**								
10.4.30.3	SEND DATA(E-UTRAN)								
	3.1	Immediate mode – E-UTRAN; Default EPS bearer	Rel-13		C223	E.1/89 AND E.1/92	E-USS OR NB-SS		
	3.2	Store mode – E-UTRAN; APN different from default APN	Rel-13		C224	E.1/89 AND E.1/92	E-USS OR NB-SS		
10.4.30.4	SEND DATA(NG-RAN)								
	4.1	NG-RAN; bearer type '03' – Default PDU Session; immediate mode	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
	4.2	NG-RAN; bearer type '0C'; Store mode	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
	4.3	SEND DATA, NG-RAN, RECEIVE DATA suspended during the process of SEND DATA	Rel-16		C232	E.1/89 AND E.1/281	NG-SS only		
10.4.31	**GET CHANNEL STATUS**								
	1.4	EPS bearer with APN different from default APN	Rel-13		C224	E.1/89 AND E.1/93	E-USS OR NB-SS		
	1.5	EPS bearer with APN	Rel-13		C224	E.1/89 AND	E-USS OR		

		different from default APN; after a link dropped				E.1/93	NB-SS		
	1.6	After a link dropped during receiving data	Rel-15		C232	E.1/89 AND E.1/281	NG-SS only		
10.5	**Data Download to UICC**								
10.5.1	**SMS-PP Data Download**								
10.5.2	**Cell Broadcast Data Download**								
10.5.3	**SMS-PP Data Download over IMS**								
	3.1	SMS-PP Data Download over IMS; E-UTRAN	Rel-13		C198	E.1/2	E-USS only	TCEP001	
10.5.4	**SMS-PP Data Download over SGs in E-UTRAN**								
	4.1	SMS-PP Data Download over SGs; E-UTRAN	Rel-8		C205	E.1/2	E-USS OR NB-SS	TCEP001	
10.6	**CALL CONTROL BY USIM**								
10.6.1	**Procedure for Mobile Originated calls**								
10.6.2	**Procedure for Supplementary (SS) Services**								
10.6.3	**Interaction with Fixed Dialling Number (FDN)**								
10.6.4	**Support of Barred Dialling Number (BDN) service**								
10.6.5	**Barred Dialling Number (BDN) service handling for terminals not supporting BDN**								
10.7	**EVENT DOWNLOAD**								
10.7.1	**MT Call Event**								
10.7.2	**Call Connected Event**								
10.7.3	**Call Disconnected Event**								
10.7.4	**Location Status Event**								
10.7.4.1	Location Status Event (Normal)								
	1.2	E-UTRAN	Rel-13		C222	E.1/37 AND E.1/33 AND E.1/135	E-USS OR NB-SS		
	1.3	NG-RAN	Rel-15		C231	E.1/37 AND E.1/33	NG-SS only		
10.7.5	**User Activity Event**								
10.7.5.1	User Activity Event (Normal)								
	1.1	user activity event	Rel-13		C178	E.1/38 AND E.1/33 AND E.1/111			
10.7.6	**Idle Screen Available Event**								
10.7.7	**Card Reader Status Event**								
10.7.7.1	Card Reader Status (Normal)								
	1.1	Card reader status normal	Rel-13		C109	E.1/40 AND E.1/33			
10.7.7.2	Card Reader Status (Detachable card reader)								
	2.1	Detachable card reader	Rel-13		C116	E.1/40 AND E.1/33			
10.7.8	**Language Selection Event**								
10.7.8.1	Language Selection Event (Normal)								
	1.1	Language selection event	Rel-13		C177 AND C178 AND C181 AND C216	E.1/41 AND E.1/33 AND E.1/110 AND E.1/111			
10.7.9	**Browser Termination Event**								
10.7.10	**Data Available Event**								
10.7.10.1	Data Available Event (Normal)								
	1.2	Data available event	Rel-13		C223	E.1/43 AND E.1/89 AND E.1/92 AND E.1/33	E-USS OR NB-SS		
	1.3	Data available; PSM by SUSPEND UICC	Rel-13	Rel-13		E.1/43 AND E.1/89 AND E.1/92 AND E.1/33	E-USS OR NB-SS	TCEP003	
			Rel-14		C225				
	1.4	Data available event	Rel-13	Rel-13		E.1/43 AND E.1/89 AND E.1/92 AND E.1/33	E-USS OR NB-SS	TCEP003	
			Rel-14		C226				
	1.5	Data available event	Rel-13	Rel-13		E.1/43 AND E.1/89 AND E.1/92 AND E.1/33	E-USS OR NB-SS	TCEP004	
			Rel-14		C227				
10.7.11	**Channel Status event**								
	1.2	Channel status event	Rel-13		C223	E.1/44 AND E.1/89 AND E.1/33	E-USS OR NB-SS		
10.7.12	**Access Technology Change event**								
	1.4	Single access technology; NG-RAN	Rel-15		C231	E.1/45 AND E.1/33	NG-SS only		

10.7.13	**Display parameter changed event**								
10.7.14	**Local Connection event**								
10.7.15	**Network search mode change event**								
	1.1	Network search mode change event	Rel-13		M	E.1/48 AND E.1/33			
10.7.16	**Browsing status event**								
10.7.17	**Network Rejection event**								
	1.1	ATTACH REJECT	Rel-13		C190	E.1/33 AND E.1/197	E-USS OR NB-SS		
	1.2	TRACKING AREA UPDATE REJECT	Rel-13		C190	E.1/33 AND E.1/197	E-USS OR NB-SS		
	1.3	REGISTRATION REJECT-Initial Registration	Rel-15		C231	E.1/33 AND E.1/197	NG-SS only		
	1.4	REGISTRATION REJECT-Mobility Registration updating	Rel-15		C231	E.1/33 AND E.1/197	NG-SS only		
10.7.18	**CSG Cell Selection event**								
	1.1	CSG cell Selection	Rel-13		C200	E.1/201	E-USS only		
10.7.19	**IMS registration event**								
		IMS registration event (Refer to 10.4.27.7 AND 27.22.7.20)	Rel-13						
10.7.20	**Incoming IMS data event**								
	1.1	IMS Registration and Data available event; IARI list stored on the ISIM	Rel-10		C208	E.1/33 AND E.1/43 AND E.1/89 AND E.1/91 AND E.1/246 AND E.1.247 AND E.1/249	E-USS		
10.7.21	**Data Connection Status Change event**								
	1.1	E-UTRAN; Activate PDN and Deactivate PDN	Rel-14		C229	E.1/275	E-USS OR NB-SS		
	1.2	NG-RAN; Activate PDU and Deactivate PDU	Rel-17		C232	E.1/275	NG-SS		
10.7.22	**CAG Cell Selection event**								
	1.1	EVENT DOWNLOAD – CAG Cell Selection	Rel-17		C235	E.1/287	NG-SS only		
10.8	**MO SHORT MESSAGE CONTROL BY USIM**								
	1.10	Over SG in E-UTRAN; with Proactive command; allowed; no modification	Rel-13		C220	E.1/12 AND E.1/26 AND E.1/110	E-USS OR NB-SS	TCEP001	
	1.11	Over SG in E-UTRAN; with user SMS; allowed; no modification	Rel-13		C220	E.1/12	E-USS OR NB-SS		
	1.12	Over SG in E-UTRAN; with Proactive command; Not allowed	Rel-13		C220	E.1/12 AND E.1/26 AND E.1/110	E-USS OR NB-SS	TCEP001	
	1.13	Over SG in E-UTRAN; with user SMS; Not allowed	Rel-13		C220	E.1/12	E-USS OR NB-SS		
	1.14	Over SG in E-UTRAN; with Proactive command; Allowed with modifications'	Rel-13		C220	E.1/12 AND E.1/26 AND E.1/110	E-USS OR NB-SS	TCEP001	
	1.15	Over SG in E-UTRAN; with user SMS; Allowed with modifications	Rel-13		C220	E.1/12	E-USS OR NB-SS		
	1.16	Over SG in E-UTRAN; with Proactive command; USIM responds with '90 00'; Allowed; no modification	Rel-13		C220	E.1/12 AND E.1/26 AND E.1/110	E-USS OR NB-SS	TCEP001	
	1.17	Over SG in E-UTRAN; Send Short Message attempt by user; USIM responds with '90 00'; Allowed; no modification	Rel-13		C220	E.1/12	E-USS OR NB-SS		
10.9	**Handling of command number**								
	1.1	DISPLAY TEXT normal priority	Rel-13		C177	E.1/17 AND E.1/110			
10.10	**CALL CONTROL on EPS PDN Connection**								
	1.1	E-UTRAN – default PDN connection activation; allowed without modification	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64 AND	E-USS OR NB-SS		
			Rel-14		C222				

						E.1/142			
	1.2	E-UTRAN – default PDN connection activation; not allowed	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64 AND E.1/142	E-USS OR NB-SS		
			Rel-14		C222				
	1.3	E-UTRAN – default PDN connection activation; allowed with modification	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	E-USS OR NB-SS		
			Rel-14		C222				
	1.4	E-UTRAN – PDN connection triggered by user; UICC sends 90 00	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64 AND E.1/142	E-USS only		
			Rel-14		C190				
	1.5	E-UTRAN – PDN connection triggered by user; UICC sends 93 00	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64 AND E.1/142	E-USS only		
			Rel-14		C190				
	1.6	E-UTRAN – PDN connection triggered by user; allowed with modification	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	E-USS only		
			Rel-14		C190				
	1.7	PDN connection activation from OPEN CHANNEL command	Rel-13	Rel-13		E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64 AND E.1/142	E-USS only		
			Rel-14		C182				
10.11	**Call Control on PDP Context Activation**								
10.12	**Change eCall mode**								
	1.1	REFRESH after change eCall mode; disable FDN in EF_{EST}; E-UTRAN	Rel-13	Rel-13		E.1/24 AND E.1/2	E-USS only		
			Rel-14		C190				
	1.2	REFRESH after change eCall mode; enable FDN in EF_{EST}; E-UTRAN	Rel-13	Rel-13		E.1/24 AND E.1/2	E-USS only		
			Rel-14		C190				
	1.3	REFRESH after changing eCall mode; disable FDN in EF_{EST}; IMS Emergency Services in E-UTRAN	Rel-14		C202	E.1/24 AND E.1/2	E-USS only		
10.13	**CALL CONTROL on PDU Session Establishment for NG-RAN**								
	1.1	Allowed without modification; PDU Session establishment triggered by User	Rel-15		C231	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
	1.2	Not allowed	Rel-15		C231	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
	1.3	Triggered by user; UICC sends 90 00	Rel-15		C231	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
	1.4	Triggered by user; UICC sends 93 00	Rel-15		C231	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND	NG-SS only		

						E.1/13 AND E.1/64			
	1.5	Triggered by user; allowed with modification of SM PDU DN request container	Rel-15		C234	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
	1.6	Triggered by user; allowed with modification of ePCO	Rel-15		C231	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
	1.7	Triggered by OPEN CHANNEL	Rel-15		C232	E.1/7 AND E.1/8 AND E.1/10 AND E.1/11 AND E.1/13 AND E.1/64	NG-SS only		
10.14	**ENVELOPE SMS-PP Data Download on NAS messages**								
10.14.1	Routing Indicator Data update via DL NAS TRANSPORT messages								
	1.1	"acknowledgement not requested" and "re-registration not requested"	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	1.2	"acknowledgement not requested" and "re-registration requested"	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	1.3	"acknowledgement requested" and "re-registration requested"	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	1.4	"acknowledgement requested" and "re-registration not requested"	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
10.14.2	Steering of Roaming via DL NAS TRANSPORT message								
	2.1	REFRESH command [Steering of Roaming]	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	2.3	"Acknowledgement requested" and REFRESH command [Steering of Roaming]	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	2.4	Long message in several ENVELOPE commands with REFRESH command [Steering of Roaming]	Rel-16		C231	E.1/24 AND E.1/2	NG-SS only		
10.14.3	Steering of Roaming via REGISTRATION ACCEPT message								
	3.1	REFRESH command [Steering of Roaming]	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
	3.3	Long message with REFRESH command [Steering of Roaming]	Rel-15		C231	E.1/24 AND E.1/2	NG-SS only		
10.15	**Geographical location discovery**								
	1.1	Geographical location discovery, Preferred GAD shapes is Ellipsoid point with altitude, NG-RAN	Rel-15		C237	E.1/181 AND E.1/238)	NG-SS only		
NOTE: Blank entries indicate the latest valid release at the time of publication of this specification									

C101	IF A.1/1 THEN M ELSE N/A	-- O_Cap_Conf
C102	void	
C103	void	
C104	IF A.1/2 THEN M ELSE N/A	-- O_Sust_text
C105	IF A.1/3 AND A.1/41 THEN M ELSE N/A	-- O_UCS2_Entry AND O_UCS2_Cyrillic
C106	IF A.1/4 THEN M ELSE N/A	-- O_Ext_Str
C107	IF A.1/5 THEN M ELSE N/A	-- O_Help
C108	IF A.1/6 THEN O.1 ELSE N/A	-- O_Icons
C109	IF A.1/7 THEN M ELSE N/A	-- O_Dual_Slot
C110	IF A.1/9 AND A.1/46 THEN M ELSE N/A	-- O_Run_At AND O_+CIMI
C111	IF (A.1/10 OR E.1/71) THEN M ELSE N/A	-- O_LB
C112	IF A.1/11 THEN M ELSE N/A	-- O_Soft_key
C113	void	
C114	IF C110 AND C108 THEN O.1 ELSE N/A	-- O_Run_At AND O_+CIMI AND O_Icons
C115	IF C111 AND C108 THEN M ELSE N/A	-- O_LB AND O_Icons

C116	IF A.1/7 AND A.1/8 THEN M ELSE N/A	-- O_Dual_Slot AND O_Detach_Rdr
C117	void	
C118	IF A.1/15 AND A.1/41 THEN M ELSE N/A	-- O_UCS2_Disp AND O_UCS2_Cyrillic
C119	IF A.1/19 THEN M ELSE N/A	-- O_Redial
C120	IF A.1/20 THEN M ELSE N/A	-- O_D_NoResp
C121	IF A.1/21 AND A.1/17 THEN M ELSE N/A	-- O_BIP_GPRS AND O_UDP
C122	IF C111 AND A.1/16 THEN M ELSE N/A	-- O_LB AND O_GPRS
C123	void	
C124	IF A.1/22; test x.A M ELSE x.B M (where x is the expected sequence number value)	-- O_CP_Subaddr
C125	IF A.1/23 THEN M ELSE N/A	-- O_Imm_Resp
C126	IF A.1/24 THEN M ELSE N/A	-- O_Duration
C127	void	
C128	void	
C129	void	
C130	void	
C131	void	
C132	IF A.1/27 THEN M ELSE N/A	-- O_BIP_Local
C133	void	
C134	IF A.1/38 THEN M ELSE N/A	-- O_MMS
C135	void	
C136	void	
C137	void	
C138	void	
C139	IF A.1/35 THEN M ELSE N/A	-- O_Batt
C140	IF A.1/39 THEN M ELSE N/A	-- O_UC_Before_EnvCC
C141	IF A.1/40 THEN M ELSE N/A	-- O_UC_After_EnvCC
C142	IF A.1/3 AND A.1/42 THEN M ELSE N/A	-- O_UCS2_Entry AND O_UCS2_Chinese
C143	IF A.1/15 AND A.1/42 THEN M ELSE N/A	-- O_UCS2_Disp AND O_UCS2_Chinese
C144	IF A.1/3 AND A.1/43 THEN M ELSE N/A	-- O_UCS2_Entry AND O_UCS2_Katakana
C145	IF A.1/15 AND A.1/43 THEN M ELSE N/A	-- O_UCS2_Disp AND O_UCS2_Katakana
C146	IF A.1/45 THEN M ELSE N/A	-- O_FDN
C147	IF A.1/44 THEN M ELSE N/A	-- O_BDN
C148	IF A.1/9 AND A.1/47 THEN M ELSE N/A	-- O_Run_At AND O_+CGMI
C149	IF C148 AND C118 THEN M ELSE N/A	-- O_Run_At AND O_+CGMI AND O_UCS2_Disp AND O_UCS2_Cyrillic
C150	IF C148 AND C143 THEN M ELSE N/A	-- O_Run_At AND O_+CGMI AND O_UCS2_Disp AND O_UCS2_Chinese
C151	IF C148 AND C145 THEN M ELSE N/A	-- O_Run_At AND O_+CGMI AND O_UCS2_Disp AND O_UCS2_Katakana
C152	IF C121 AND A.1/49 THEN M ELSE N/A	-- O_BIP_GPRS AND O_UDP AND O_BUFFER_SIZE
C153	IF A.1/50 THEN M ELSE N/A	-- O_TAT_AL
C154	IF A.1/51 THEN M ELSE N/A	-- O_TAT_AC
C155	IF A.1/52 THEN M ELSE N/A	-- O_TAT_AR
C156	IF A.1/53 THEN M ELSE N/A	-- O_TAT_FSN
C157	IF A.1/54 THEN M ELSE N/A	-- O_TAT_FSL
C158	IF A.1/55 THEN M ELSE N/A	-- O_TAT_FSS
C159	IF A.1/56 THEN M ELSE N/A	-- O_TAT_SN
C160	IF A.1/57 THEN M ELSE N/A	-- O_TAT_SB
C161	IF A.1/58 THEN M ELSE N/A	-- O_TAT_SI
C162	IF A.1/59 THEN M ELSE N/A	-- O_TAT_SU
C163	IF A.1/60 THEN M ELSE N/A	-- O_TAT_SS
C164	IF A.1/61 THEN M ELSE N/A	-- O_TAT_STFC
C165	IF A.1/62 THEN M ELSE N/A	-- O_TAT_STFB
C166	IF A.1/63 THEN test step option n.A M ELSE test step option n.B M	-- O_longFTN
C167	IF A.1/64 THEN M ELSE N/A	-- O_GERAN
C168	IF A.1/65 THEN M ELSE N/A	-- O_Global_PB
C169	IF (C121 AND A.1/68 THEN test x.A M ELSE IF (C121 AND NOT A.1/68) test x.B M ELSE N/A	-- (O_BIP_GPRS AND O_UDP AND O_User_Confirm_Before_PDP_Context_Request) OR (O_BIP_GPRS AND O_UDP AND NOT O_User_Confirm_Before_PDP_Context_Request)
C170	IF A.1/69 THEN M ELSE N/A	-- O_Serv_SS_HOLD
C171	IF A.1/6 THEN O.2 ELSE N/A	-- O_Icons
C172	IF A.1/6 THEN O.4 ELSE N/A	-- O_Icons
C173	IF C110 AND A.1/6 THEN O.2 ELSE N/A	-- O_Run_At AND O_+CIMI AND O_Icons
C174	IF A.1/78 AND A.1/79 THEN M ELSE N/A	-- O_AddInfo_SS AND O_Serv_SS_CFU
C175	IF A.1/78 AND A.1/80 THEN M ELSE N/A	-- O_AddInfo_SS AND O_Serv_SS_CLIR
C176	IF A.1/44 THEN N/A ELSE M	-- O_BDN
C177	IF A.1/84 THEN M ELSE N/A	-- O_No_Type_ND
C178	IF A.1/85 THEN M ELSE N/A	-- O_No_Type_NK
C179	IF A.1/86 THEN M ELSE N/A	-- O_No_Type_NA
C180	IF A.1/87 THEN M ELSE N/A	-- O_No_Type_NS
C181	IF A.1/88 THEN M ELSE N/A	-- O_No_Type_NL

C182	IF A.1/18 AND (A.1/132 OR A.1/133) THEN M ELSE N/A	-- O_TCP AND (pc_BIP_eFDD OR pc_BIP_eTDD)
C183	IF (NOT A.1/135) AND (A.1/64 OR A.1/134) THEN M ELSE N/A	-- (NOT O_EUTRAN_NO_UTRAN_NO_GERAN) AND (O_GERAN OR O_UTRAN)
C184	IF A.1/134 THEN M ELSE N/A	-- O_UTRAN
C185	IF A.1/6 AND A.1/111 THEN M ELSE N/A	-- O_Icons AND O_Icon_Rec1_Send_SS
C186	IF A.1/6 AND A.1/115 THEN M ELSE N/A	-- O_Icons AND O_Icon_Rec2_Send_USSD
C187	IF A.1/6 AND A.1/114 THEN M ELSE N/A	-- O_Icons AND O_Icon_Rec1_Send_USSD
C188	IF A.1/6 AND A.1/120 THEN M ELSE N/A	-- O_Icons AND O_Icon_Rec1_Set_Up_Idle_Mode_Text
C189	IF C110 AND A.1/6 AND A.1/123 THEN M ELSE N/A	-- O_Run_At AND O_+CIMI AND O_Icons AND O_Icon_Rec1_Run_AT_Cmd
C190	IF (A.1/139 OR A.1/140) THEN M ELSE N/A	-- pc_eTDD OR pc_eFDD
C191	IF A.1/21 AND A.1/18 THEN M ELSE N/A	-- O_BIP_GPRS AND O_TCP
C192	IF A.1/21 AND A.1/18 AND A.1/72 THEN M ELSE N/A	-- O_BIP_GPRS AND O_TCP AND O_TCP_UICC_ServerMode
C193	IF (A.1/10 OR (E.1/71 AND E.1/42)) AND A.1/193 THEN M ELSE N/A	-- O_LB AND O_Browser_Termination
C194	IF A.1/138 THEN M ELSE N/A	-- O_Select_Item_Default_Item
C195	IF A.1/137 THEN M ELSE N/A	-- O_CSG_Cell_Discovery
C196	IF A.1/142 AND (A.1/139 OR A.1/140) THEN M ELSE N/A	-- pc_MO_SM-over-IMS AND (pc_eFDD OR pc_eTDD)
C197	IF A.1/142 AND A.1/134 AND A.1/194 THEN M ELSE N/A	-- pc_MO_SM-over-IMS AND O_UTRAN AND O_IMS_UTRAN
C198	IF A.1/141 AND (A.1/139 OR A.1/140) THEN M ELSE N/A	-- pc_SM-over-IP-receiver AND (pc_eFDD OR pc_eTDD)
C199	IF A.1/141 AND A.1/134 AND A.1/194 THEN M ELSE N/A	-- pc_SM-over-IP-receiver AND O_UTRAN AND O_IMS_UTRAN
C200	IF A.1/136 THEN M ELSE N/A	-- O_Event_CSG_Cell_Selection
C201	IF A.1/64 AND A.1/149 THEN M ELSE N/A	-- O_GERAN AND O_SMS-CB_Data_Download
C202	IF (A.1/139 OR A.1/140) AND A.1/150 THEN M ELSE N/A	-- (pc_eFDD OR pc_eTDD) AND O_IMS
C203	IF A.1/134 AND A.1/150 THEN M ELSE N/A	-- O_UTRAN AND O_IMS
C204	IF A.1/151 THEN N/A ELSE M	-- O_PS_OPMODE
C205	IF (A.1/139 OR A.1/140) AND A.1/152 THEN M ELSE N/A	-- (pc_eFDD OR pc_eTDD) AND O_SMS_SGs_MT
C206	IF (A.1/139 OR A.1/140) AND A.1/153 THEN M ELSE N/A	-- (pc_eFDD OR pc_eTDD) AND O_SMS_SGs_MO
C207	IF A.1/147 AND A.1/148 AND A.1/150 THEN M ELSE O	-- O_Event_IMS_Registration AND O_UICC_ACCESS_IMS AND O_IMS
C208	IF A.1/146 AND A.1/147 AND A.1/148 AND A.1/150 THEN M ELSE N/A	-- O_Event_Incoming_IMS_Data AND O_Event_IMS_Registration AND O_UICC_ACCESS_IMS AND O_IMS
C209	IF (A.1/157 OR A.1/159) THEN M ELSE N/A	-- (pc_SMS_CS_MO OR pc_SMS_PS_MO)
C210	IF (NOT A.1/135) AND (A.1/64 OR A.1/134) AND (A.1/157 OR A.1/159) THEN M ELSE N/A	-- (NOT (O_EUTRAN_NO_UTRAN_NO_GERAN) AND (O_GERAN OR O_UTRAN)) AND (pc_SMS_CS_MO OR pc_SMS_PS_MO)
C211	IF (A.1/156 OR A.1/158) THEN M ELSE N/A	-- (pc_SMS_CS_MT OR pc_SMS_PS_MT)
C212	IF (NOT A.1/135) AND (A.1/64 OR A.1/134) AND (A.1/156 OR A.1/158) THEN M ELSE N/A	-- (NOT (O_EUTRAN_NO_UTRAN_NO_GERAN) AND (O_GERAN OR O_UTRAN)) AND (pc_SMS_CS_MT OR pc_SMS_PS_MT)
C213	IF (NOT A.1/160) THEN M ELSE N/A	-- NOT O_Rej_Launch_Browser_withDefURL
C214	IF A.1/160 THEN M ELSE N/A	-- O_Rej_Launch_Browser_withDefURL
C215	IF A.1/16 THEN M ELSE N/A	-- O_GPRS
C216	IF A.1/161 THEN M ELSE N/A	-- O_Lang_Select
C217	IF A.1/162 THEN M ELSE N/A	-- O_Provide_Local_LS
C218	IF A.1/163 THEN M ELSE N/A	-- O_Lang_Notif
C219	IF A.1/164 THEN M ELSE N/A	-- O_Refresh_AlphaIdentifier
C220	IF (A.1/139 OR A.1/140 OR A.1/173) AND A.1/153 THEN M ELSE N/A	-- (pc_eFDD OR pc_eTDD OR pc_NB) AND O_SMS_SGs_MO
C221	IF (A.1/139 OR A.1/140 OR A.1/173) AND A.1/152 THEN M ELSE N/A	-- (pc_eFDD OR pc_eTDD OR pc_NB) AND O_SMS_SGs_MT
C222	IF (A.1/139 OR A.1/140 OR A.1/173) THEN M ELSE N/A	-- pc_eTDD OR pc_eFDD OR pc_NB
C223	IF A.1/18 AND (A.1/132 OR A.1/133 OR A.1/177) THEN M ELSE N/A	-- O_TCP AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB)
C224	IF A.1/18 AND A.1/178 AND (A.1/132 OR A.1/133 OR A.1/177) THEN M ELSE N/A	-- O_TCP AND pc_Multiple_PDN AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB)
C225	IF A.1/18 AND (A.1/132 OR A.1/133 OR A.1/177) AND A.1/182 THEN M ELSE N/A	-- O_TCP AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB) AND O_PSM_SUSPEND_UICC
C226	IF A.1/18 AND (A.1/132 OR A.1/133 OR A.1/177) AND A.1/181 THEN M ELSE N/A	-- O_TCP AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB) AND O_PSM_DEAC_UICC
C227	IF A.1/18 AND (A.1/132 OR A.1/133 OR A.1/177) AND A.1/183 THEN M ELSE N/A	-- O_TCP AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB) AND O_eDRX_SUSPEND_UICC
C228	IF (A.1/132 OR A.1/133) AND A.1/152 AND A.1/184 THEN M ELSE N/A	-- (pc_BIP_eFDD OR pc_BIP_eTDD) AND O_SMS_SGs_MT AND O_PS_Data_Off
C229	IF (A.1/132 OR A.1/133 OR A.1/177) THEN M ELSE N/A	-- pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB

C230	A.1/17 AND A.1/178 AND (A.1/132 OR A.1/133 OR A.1/177) THEN M ELSE N/A	-- O_UDP AND pc_Multiple_PDN AND (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_BIP_NB)
C231	IF A.1/187 THEN M ELSE N/A	-- pc_NG_RAN
C232	IF (A.1/187 AND A.1/188) THEN M ELSE N/A	-- pc_NG_RAN AND pc_BIP_NG_RAN
C233	IF (A.1/191) THEN M ELSE N/A	--O_SUPI_NAI
C234	IF A.1/187 AND A.1/195 THEN M ELSE N/A	-- pc_NG_RAN AND O_Set_DN_Specific_ID
C235	IF (A.1/187 AND A.1/196) THEN M ELSE N/A	-- pc_NG_RAN AND pc_CAG
C236	IF A.1/197 THEN M ELSE N/A	-- pc_nonTerrestrialNetwork_r17
C237	IF (A.1/81 AND A.1/187) THEN M ELSE N/A	-- O_Geo_Location_Discovery AND pc_NG_RAN
C238	IF (A.1/83 AND A.1/187) THEN M ELSE N/A	-- O_Toolkit_GBA AND pc_NG_RAN

O.1	IF A.1/zz tests x.yA M ELSE tests x.yB M (where zz corresponds to the option relating to the command being tested (e.g. A.1/90 if Display Text supports icons as defined in record 1 of EF(IMG)) and x.y is the expected sequence number value)
O.2	IF A.1/zz tests x.yA M ELSE tests x.yB M (where zz corresponds to the option relating to the command being tested (e.g. A.1/91 if Display Text supports icons as defined in record 2 of EF(IMG)) and x.y is the expected sequence number value)
O.3	void
O.4	IF A.1/zz AND A.1/ww tests x.yA M ELSE tests x.yB M (where zz and ww correspond to the option relating to the command being tested (e.g. A.1/90 if Display Text supports icons as defined in record 1 of EF(IMG) and A.1.92 if Display Text supports icons as defined in record 5 of EF(IMG)) and x.y is the expected sequence number value)

TCEP001	IF NOT A.1/84 THEN during the test execution; the display or the non-display of any alpha identifier; text string or icon shall be treated as successfully verified.
TCEP002	IF NOT A.1/85 THEN the terminal may open the channel without explicit confirmation by the user.
TCEP003	If A.1/181 and/or A.1/182 is supported; in addition to the test case initial conditions; any specific information or particular UE configurations required to ensure that the UE performs UICC deactivation/suspension in PSM shall be provided by the UE manufacturer
TCEP004	If A.1/183 is supported; in addition to the test case initial conditions; any specific information or particular UE configurations required to ensure that the UE suspends the UICC in eDRX shall be provided by the UE manufacturer

AER001	IF ((A.1/21 AND A.1/17) AND ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.27.6; Seq. 6.1) ELSE A	-- (O_BIP_GPRS AND O_UDP) AND (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER002	IF ((A.1/132 OR A.1/133 OR A.1/173) AND (A.1/134 OR A.1/64))) THEN R(27.22.7.4 Seq. 1.2) ELSE A	-- (pc_BIP_eFDD OR pc_BIP_eTDD OR pc_NB) AND (O_GERAN OR O_UTRAN)
AER003	IF ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.15 Seq. 1.17) ELSE A	-- (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER004	IF ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.15 Seq. 1.14) ELSE A	-- (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER005	IF ((A.1/21 AND A.1/17) AND ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.27.6; Seq. 6.4) ELSE A	-- (O_BIP_GPRS AND O_UDP) AND (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER006	IF ((A.1/21 AND A.1/17) AND ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.27.6; Seq. 6.3) ELSE A	-- (O_BIP_GPRS AND O_UDP) AND (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER007	IF ((A.1/21 AND A.1/17) AND ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.27.6; Seq. 6.5) ELSE A	-- (O_BIP_GPRS AND O_UDP) AND (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)
AER008	IF ((A.1/21 AND A.1/17) AND ((A.1/132 OR A.1/133) AND (A.1/134 OR A.1/64))) THEN R(10.4.29; Seq. 1.2) ELSE A	-- (O_BIP_GPRS AND O_UDP) AND (pc_BIP_eFDD OR pc_BIP_eTDD) AND (O_UTRAN OR O_GERAN)

4 Test environment

4.0 General Test purpose

Testing of functional conformance to USIM Application Toolkit commands, including proactive UICC commands when implemented on a nrUSIM.

All facilities given by the TERMINAL PROFILE as supported, for which tests exist in the present document, shall be tested. Many of the proactive UICC commands include an alpha identifier data object. This is intended to be a short one- or two-word identifier for the ME to optionally display on the screen along with any other indications, at the same time as the ME performs the UICC command.

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

4.1 Test environment description

4.1.1 General test environment

Without having the UICC-Terminal interface accessible a direct verification of APDU/data timing and contents is not possible. Thus, alternative implementations and methods will be used to provide sufficient confidence in the result obtained. The present document will not specify an authoritative test environment. The following figure shows a test environment that allows the verification of test results for UEs with an integrated and not removable UICC/USIM (nrUSIM).

Without having the UICC-Terminal interface accessible, a direct verification of APDU or data contents is not possible. The present document shall provide a test environment and test methods that allow the verification of test results for UEs with an integrated and not removable UICC/USIM (nrUSIM).

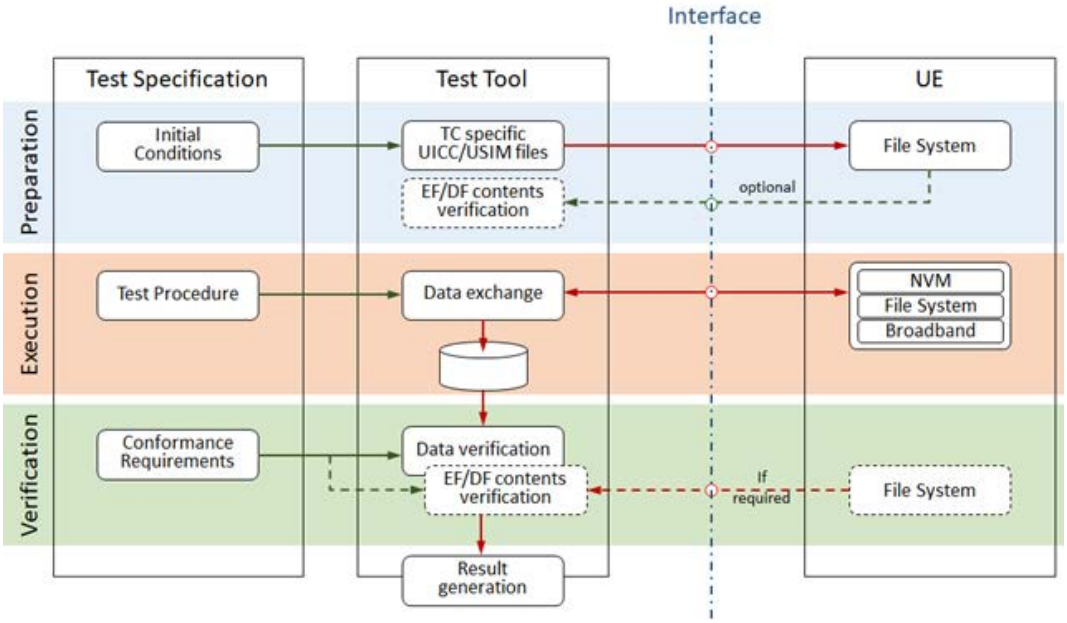


Figure 4.1: General test environment

Figure 4.1 gives an overview on how a test case shall be executed.

Based on the identified test purpose and the related conformance requirements an appropriate test sequence is defined. The test itself can be split into three phases:

- In the preparation phase the initial set-up for the test case is performed. Test specific data is transferred to the nrUSIM. E.g. by provisioning a test specific profile compliant to the TCA eUICC Profile Package: Interoperable Format Technical Specification [18], provisioning test specific proactive command data, etc..
- In the execution phase the test procedure is performed. It has to be ensured that all steps defined in the test procedure are executed and that they are executed in order. The data generated during this execution is stored in the TT and/or test EFs in the file system within the nrUICC.
- In the verification phase the data, procedures and processes identified and stored during execution are checked against given conformance requirements. A final verification of specific EF/DF contents might be required. The exchange of required data has to be ensured, even though the required data transfer is not necessarily listed in the test procedure.

4.1.2 Example - test environment for contents verification

Contents verification within the scope of the present document describes a procedure that allows the TT to compare contents of EFs/DFs available on the EUT with expected values defined in the present document.

Example:

- During preparation phase specific content for the EFFPLMN is updated in the nrUSIM;
- During execution of the test the FPLMN value is modified;
- As the FPLMN value stored in EFFPLMN is not transferred to the TT during test execution;
- The TT performs a read procedure on EFFPLMN at test case end (not necessarily part of the test procedure);
- The TT compares the value read with the expected value stored in the TT.

The contents verification method described here is not applicable when a verification of EF/DF contents needs to be performed at a time other than the preparation or the verification phase.

NOTE 1: It is not expected that a reading procedure on EF contents can be performed whilst the test procedure is executed.

The test environment needed to perform contents verification is identical to the test environment shown for implicit testing.

NOTE 2: A test toolkit applet can be used for testing USAT specific test cases in the present document and EF content verification method is not applicable for verifying USAT specific requirements.

4.1.3 Example - test environment for seamless testing

Seamless testing within the scope of the present document relies on monitoring of data transfer between ME and nrUSIM traced by a software interface between nrUSIM and baseband implemented by the ME vendor.

The logged communication can be transferred to the TT and will be used to determine if conformance requirements are met.

NOTE: A test toolkit applet can be used for testing USAT specific test cases in the present document and TT shall be able to trigger proactive commands using the applet if required by the test. Refer to Annex A.1 for examples of test EFs required for the applet.

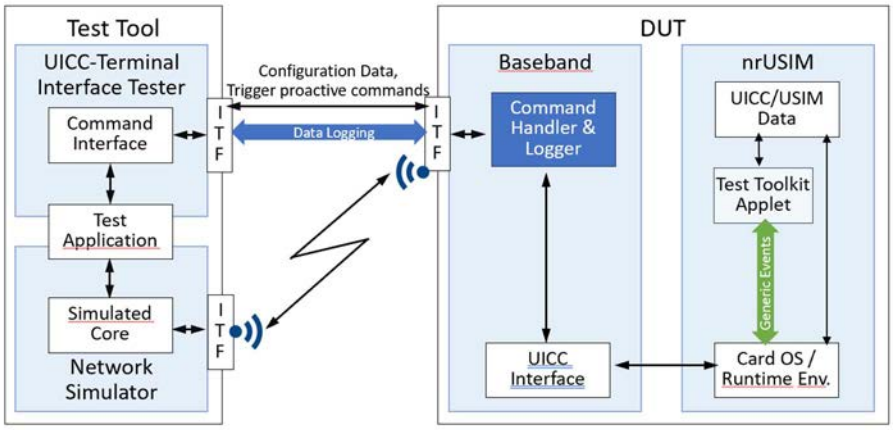


Figure 4.2: Test environment for seamless testing

4.1.4 Example – test environment for test toolkit events based testing

Test toolkit events based testing within the scope of the present document is applicable for UEs supporting the required USIM application toolkit functionality. A toolkit applet is installed onto the nrUSIM, capable of handling test events internal to the card runtime environment and the applets to monitor APDUs received at the nrUICC.

NOTE 1: The same test toolkit applet can be used for testing USAT specific test cases in the present document and TT shall be able to trigger proactive commands using the applet if required by the test. Refer to Annex A.2 for examples of test EFs required for the applet.

The logged events can be stored in a test EF during the test execution phase and transferred to the TT during the verification phase to determine if conformance requirements are met.

NOTE 2: A test toolkit applet can be used for testing USAT specific test cases in the present document and EF content verification method is not applicable for verifying USAT specific requirements.

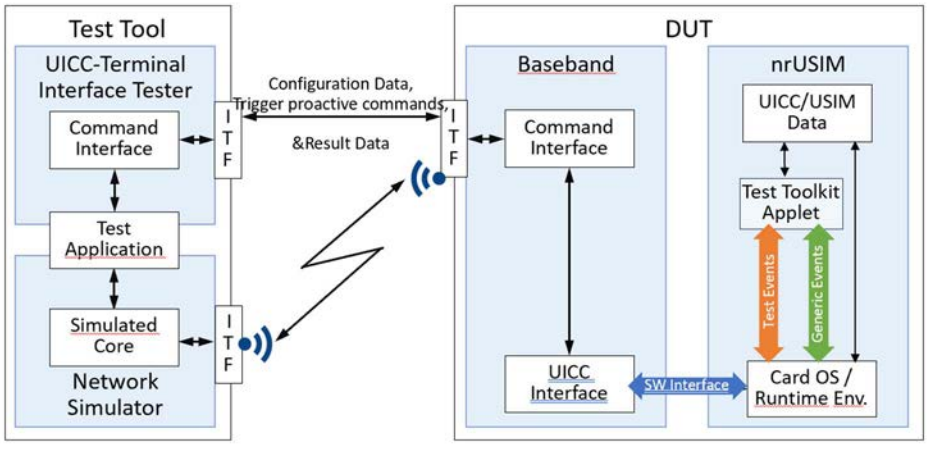


Figure 4.4: Test environment for test toolkit events based testing

Please see the required "Test configuration state" in Annex N and the "Examples of test configuration usage" in Annex O of ETSI TS 102 221 [8]

4.2 Requirements to the EUT and the test environment

4.2.1 General Requirements

All tests defined in the subsequent clauses apply to UEs operating an nrUSIM/nrUICC, what implies that the UICC-Terminal interface cannot be exposed to a TT. Thus, direct tracing and explicit verification of APDUs or data sent via the UICC-Terminal interface is not possible. As explicit verification of APDUs, data or file contents is needed to verify a conformance requirement the implementation and applicability has to be declared (see also clause 3.7.1).

The tests are not applicable for UEs providing a UICC-Terminal interface in accordance with interface form factors defined in ETSI TS 102 221 [8] or ETSI TS 102 671 [22].

The following sequence of tests confirms:

a) the usage of the test specific UICC/USIM data;

b) the correct interpretation of data read from the USIM (Universal Subscriber Identification Module) by the ME;

c) the correct writing of data to the USIM by the ME;

d) the initiation of appropriate procedures by the ME;

e) the correct execution of functions

All tests apply to the USIM application on the UICC or an equivalent application implemented in accordance with the ETSI SSP specifications ETSI TS 103 666-1 [10], ETSI TS 103 666-2 [11] and ETSI TS 103 666-3 [12]

For the proactive command test cases in clause 10 and its subclauses:

- a test toolkit applet shall be used for verifying test case specific proactive commands and TT shall be able to trigger proactive commands using the applet as required by the test,

  and

- one or more test specific EFs may be required to program data required for the proactive commands.

4.2.2 Requirements to the UE (EUT) – supported interfaces

The EUT has to support interfaces and administration methods to allow the TT or the User to set the initial conditions defined for the test cases. Where the EUT may be solely the UE or the UE connected to an interface device.

NOTE: The connection of the UE and an interface device is set up similar to what is described in the Companion Device scenario in GSMA SGP.22 [23], but not limited to remote SIM provisioning functionality.

Suggested interfaces:

- Wi-Fi (IEEE 802.11-2016 [13])
- USB (USB-IF, USB 2.0 or higher)

The UE has to support at least one of the following data transfer methods:

- RFM and OTA via ETSI TS 102 225 [14] and ETSI TS 102 226 [15]
- AT commands as defined in TS 27.007 [16]
- Java™Card as defined in TS 31.130 [17]

Even though the availability of at least one of the suggested interfaces and one of the suggested data transfer methods is recommended, interfaces and methods for UICC/USIM preparation for testing purposes are to be provided by the UE vendor and are out of scope of the present document.

4.2.3 Supported RATs

UEs tested in accordance with the present document shall support any 3GPP defined RATs. Test cases defined in the present document may contain RAT or RAN specific conformance requirements and methods of test. The applicability of the individual test cases can be determined by using Table B.1.

Tests that would require 2G network access (GERAN) an 3G network access (UTRAN) are out of scope of the present document.

4.2.4 Initial and final procedure steps

Initial and final procedure steps are out of scope of the current specification to not explicitly exclude methods that might be used to get a UE set up at test case start or to have it 'cleaned up' at the end of a test (if required).

The testing person has to ensure that the UE has installed test specific the UICC and USIM data in accordance with the definitions of the particular test (see note). The UE has to be accessible and is brought into a specific reception mode if required by the test case. It has to be ensured that interfaces that are used to verify file data or a specific functionality do not interfere or block the operation of the test procedure as defined within this specification.

For verification purposes an interaction with the UE is allowed even after ending the defined test procedure. If such interaction takes place it has to be reported to the TT. A verification of conformance requirements that is based on data or information that is generated during this post-procedure interaction has to be identifiable as a post process but can be used for the result generation.

NOTE: For all EFs, DFs and ADFs building the UICC and USIM where no data is explicitly defined in the test or by reference, an appropriate test value can be used (e.g.: values from GSMA TS.48 [9]).

4.3 Suitability assessment

Verification by "implicit" methods is not applicable for the USAT conformance requirements defined in the present document. Either the seamless testing method (A.4/2) defined in clause 4.1.3 or the test events-based method (A.4/1) defined in clause 4.1.4 depending on the device and nrUICC capabilities shall be used for verifying conformance requirements defined in the present document.

4.4 Definition of nrUICC values and System Simulator parameters for USAT testing

4.4.1 Introduction

4.4.1.1 Installation, provisioning or modification methods for EFs and DFs

Installation, provisioning or modification methods for EFs and DFs defined in the UICCs/USIMs used for testing or in the test cases are out of scope of the present document. Respective methods have to be provided by the UE vendor.

4.4.1.2 GSMA TS.48 Version and usage

Unless stated differently in the test description or a specific UICC definition, GSMA TS.48 eSIM GTP v5.0 is used.

The usage of file values defined in GSMA TS.48 [9] does not imply that remote SIM provisioning as defined in GSMA or profiles as defined by the Trusted Connectivity Alliance (TCA) have to be supported by the nrUSIM.

4.4.2 Definition of default values for USAT testing

4.4.2.1 Applications on the default nrUICC

The default configuration of the nrUICC shall host at least one USIM application.

4.4.2.2 Definition of USIM default values

The USIM application shall be configured as defined in GSMA TS.48 [9] with the following exceptions to file definitions:

EF_{UST} (USIM Service Table)

Logically:

Service n°1:	Local Phone Book	available
Service n°2:	Fixed Dialling Numbers (FDN)	available
Service n°6:	Barred Dialling Numbers (BDN)	available
Service n°10:	Short Message Storage (SMS)	available
Service n°11:	Short Message Status Reports (SMSR)	available
Service n°12:	Short Message Service Parameters (SMSP)	available
Service n°15:	Cell Broadcast Message Identifier	available
Service n°17:	Group Identifier Level 1	not available
Service n°18:	Group Identifier Level 2	not available
Service n°20:	User controlled PLMN selector with Access Technology	available
Service n°22:	Image (IMG)	available
Service n°27:	GSM Access	available
Service n°28:	Data download via SMS-PP	available
Service n°29:	Data download via SMS-CB	available
Service n°30:	Call Control by USIM	not available
Service n°31:	MO-SMS Control by USIM	not available
Service n°32:	RUN AT COMMAND command	available
Service n°33:	shall be set to '1'	available
Service n°34:	Enabled Services Table	available
Service n°85	EPS Mobility Management Information	available
Service n°86	Allowed CSG Lists and corresponding indications	not available

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8
binary	xx1x xx11	x1xx 111x	xx1x 1x00	1001 11xx	xxx xx11	xxxx xxxx	xxxx xxxx	xxxx xxxx
	B9	B10	B11					
	xxxx xxxx	xxxx xxxx	xx01 xxxx					

The coding of EF_{UST} shall conform with the capabilities of the USIM used.

EF_{EST} (Enabled Services Table)

Logically:

Service n°1:	Fixed Dialling Numbers (FDN)
Service n°2:	Barred Dialling Numbers (BDN)
Service n°3:	APN Control List (ACL)

Coding:

Byte	B1
Hex	00

EF_{IMSI} (International Mobile Subscriber Identity)

Logically:

Length:	8 bytes
IMSI:	001 01 0123456789

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9
Hex	08	09	10	10	10	32	54	76	98

EF_{AD} (Administrative Data)

Logically:

Type approval operations
OFM to be deactivated by the Terminal
MNC: 2 digit

Coding:

Byte	B1	B2	B3	B4
Hex	80	00	00	02

EF_{LOCI} (Location Information)

Logically:

LAI-MCC: 001
LAI-MNC: 01
LAI-LAC: 0001
TMSI: "FF .. FF"

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	FF	FF	FF	FF	00	F1	10	00	01	FF	00

$EF_{EPSLOCI}$ (EPS Information)

Logically:

GUTI: 00101000102663411 22
Last visited registered TAI: 001/01/0001
EPS update status: not updated

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	0B	F6	00	F1	10	00	01	02	66	43	11	22

B13	B14	B15	B16	B17	B18
00	F1	10	00	01	01

EF_{EPSNSC} (EPS NAS Security Context)

Logically:

Key Set Identifier KSIASME: '07' (no key available)
ASME Key (KSIASME): 32 byte key, any value
Uplink NAS count: '00'
Downlink NAS count: '00'
Identifiers of selected NAS integrity and encryption algorithm: 'FF'

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	..	..	B39	B40
Hex	A0	34	80	01	07	81	20	xx	..	..	xx	82
	B41	**B42**	**B43**	**B44**	**B45**	**B46**	**B47**	**B48**	**B49**	**B50**	**B51**	**B52**
	04	00	00	00	00	83	04	00	00	00	00	84
	B53	**B54**										
	01	FF										

EF_{CBMI} (Cell Broadcast Message Identifier)

Logically:

Cell Broadcast Message Identifier 1: '03 E7'

Coding:

Byte	B1	B2	B3	..	Bx
Hex	03	E7	FF	..	FF

EF_{CBMID} (Cell Broadcast Message Identifier for Data Download)

Logically:

Cell Broadcast Message Identifier 1: '10 01'

Coding:

Byte	B1	B2	B3	..	Bx
Hex	10	01	FF	..	FF

EF_{FDN} (Fixed Dialling Numbers)

Logically:

Record 1:

Length of alp ha identifier:	6 characters;
Alpha identifier:	"FDN111";
Length of BCD number:	"03";
TON and NPI:	Telephony and unknown;
Dialled number:	123;
CCI:	None;
Ext2:	None.

Coding for record 1:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	46	44	4E	31	31	31	03	81	21	F3	FF	FF
	B13	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**				
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 2:

Length of alpha identifier:	6 characters;
Alpha identifier:	"FDN222";
Length of BCD number:	"03";
TON and NPI:	Telephony and Unknown;
Dialled number:	9876;
CCI:	None;
Ext2:	None.

Coding for record 2:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	46	44	4E	32	32	32	03	81	89	67	FF	FF
	B13	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**				
	FF	FF	FF	FF	FF	FF	FF	FF				

Record 3:

Length of alpha identifier: 6 characters;
Alpha identifier: "FDN333";
Length of BCD number: "0B";
TON and NPI: Telephony and International;
Dialled number: +12345678901234567890;
CCI: None;
Ext2: None.

Coding for record 3:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	46	44	4E	33	33	33	0B	91	21	43	65	87
	B13	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**				
	09	21	43	65	87	09	FF	FF				

EF_{BDN} (Barred Dialling Numbers)

Logically:

Record 1:

Length of alpha identifier: 6 characters;
Alpha identifier: "BDN111";
Length of BCD number: "06";
TON and NPI: Telephony and International;
Dialled number: +1357924680;
CCI: None;
Ext4: None;
Comprehension method pointer: None.

Coding for record 1:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	42	44	4E	31	31	31	06	91	31	75	29	64
	B13	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**	**B21**			
	08	FF	FF	FF	FF	FF	FF	FF	FF			

Record 2:

Length of alpha identifier: 6 characters;
Alpha identifier: "BDN222";
Length of BCD number: "03";
TON and NPI: Telephony and Unknown;
Dialled number: 122;
CCI: None;
Ext4: None;
Comprehension method pointer: None.

Coding for record 2:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	42	44	4E	32	32	32	04	81	21	F2	FF	FF
	B13	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**	**B21**			
	FF	FF	FF	FF	FF	FF	FF	FF	FF			

Record 3:

Length of alpha identifier: 6 characters;

Alpha identifier: "BDN333";
Length of BCD number: "03";
TON and NPI: Telephony and Unknown;
Dialled number: 112;
CCI: None;
Ext4: None;
Comprehension method pointer: None.

Coding for record 3:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	42	44	4E	33	33	33	03	81	11	F2	FF	FF
	B13	B14	B15	B16	B17	B18	B19	B20	B21			
	FF	FF	FF	FF	FF	FF	FF	FF	FF			

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

Logically:
Emergency call code: "122";
Emergency call code alpha identifier: "TEST";
Emergency call Service Category: RFU

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8
Hex	21	F2	FF	54	45	53	54	00

EF$_{SMSS}$ (SMS Status)

Logically:
Last used TP-MR set to"00".
Memory capacity available (flag unset b1="1").

Coding:

Byte	B1	B2
Hex	00	FF

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

Logically:

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

Coding for record 1:

Byte	B1	B2	B3	..	B13	B14	B15	B16	B17	B18	B19	B20
Hex	FD	FF	FF	..	FF	09	91	11	22	33	44	55
	B21	B22	B23	B24	B25	B26	B27	B28				
	66	77	F8	FF	FF	FF	FF	FF				

For the display of icon: See ETSI TS 102 384 [3] clause 27.22.1B.

NOTE: For test sequences executed in accordance with the present specification, the listed values replace the configurations defined in TS 31.124 [2], clause 27.22.2A and 27.22.2B.1.

4.4.2.3 Definition of DF_TELECOM default values

$EF_{PSISMSC}$ (Public Service Identity of the SM-SC)

1 record only.

Logically:

Record 1:
Public Service Identity of the SM-SC: tel:+112233445566778

Coding:

Byte	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
Hex	80	14	74	65	6C	3A	2B	31	31	32
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	32	33	33	34	34	35	35	36	36	37
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**…**	**Bxx**
	37	38	FF	FF	FF	FF	FF	FF	…	FF

4.4.3 Definition of nrUICC values and System Simulator parameters for USAT testing - E-UTRAN/EPC

4.4.3.1 Applications on the E-UTRAN/EPC nrUICC

The E-UTRAN/EPC nrUICC shall host at least one USIM application as defined in clause 4.4.3.2.
If IMS access is required the nrUICC shall host an ISIM as defined in clause 4.4.3.3 in addition.

4.4.3.2 Definition of E-UTRAN/EPC USIM values

The values of the E-UTRAN/EPC USIM are identical to the values defined for the default USIM in clause 4.4.2.2 of the present document.

NOTE: For test sequences executed in accordance with the present specification, the listed values may replace the configurations defined in TS 31.124 [2], clause 27.22.2B.1.

4.4.3.3 Definition of E-UTRAN/EPC ISIM values

The E-UTRAN/EPC ISIM shall allow IMS access and shall be configured with the following values:

EF_{AD} (Administrative Data)

Logically: Type approval operations

Coding:

Byte	**B1**	**B2**	**B3**
Hex	80	00	00

EF_{IST} (ISIM Service Table)

Logically:

Service n°1:	P-CSCF address	available
Service n°2	Generic Bootstrapping Architecture (GBA)	not available
Service n°3	HTTP Digest	not available

Service n°4	GBA-based Local Key Establishment Mechanism	not available
Service n°5	Support of P-CSCF discovery for IMS Local Break Out	not available
Service n°6	Short Message Storage (SMS)	available
Service n°7	Short Message Status Reports (SMSR)	available
Service n°8	Support for SM-over-IP including data download via SMS-PP as defined in TS 31.111 [20]	available

Coding:

Byte	B1
binary	1110 0001

EF_{IMPI} (IMS private user identity)

Logically: 001010123456789@test.3gpp.com

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	1D	30	30	31	30	31	30	31	32
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	33	34	35	36	37	38	39	40	74	65
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	73	74	2E	33	67	70	70	2E	63	6F
	B31	**B32**	**B33**	**B34**	**B35**	**B36**	**B37**	**B38**	**B39**	**B40**
	6D	FF	FF	FF	FF	FF	FF	FF	FF	FF

EF_{DOMAIN} (Home Network Domain Name)

Logically: test.3gpp.com

Coding;

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	0D	74	65	73	74	2E	33	67	70
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	70	2E	63	6F	6D	FF	FF	FF	FF	FF

EF_{IMPU} (IMS public user identity)

Record 1:

Logically: sip:001010123456789@ims.mnc246.mcc081.3gppnetwork.org

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	35	73	69	70	3A	30	30	31	30
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	31	30	31	32	33	34	35	36	37	38
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	39	40	69	6D	73	2E	6D	6E	63	32
	B31	**B32**	**B33**	**B34**	**B35**	**B36**	**B37**	**B38**	**B39**	**B40**
	34	36	2E	6D	63	63	30	38	31	2E
	B41	**B42**	**B43**	**B44**	**B45**	**B46**	**B47**	**B48**	**B49**	**B50**
	33	67	70	70	6E	65	74	77	6F	72
	B51	**B52**	**B53**	**B54**	**B55**	**B56**	**B57**	**B58**	**B59**	**B60**
	6B	2E	6F	72	67	FF	FF	FF	FF	FF

Record 2:

Logically: sip:+11234567890@test.3gpp.com

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	1E	73	69	70	3A	2B	31	31	32
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	33	34	35	36	37	38	39	30	40	74
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	65	73	74	2E	33	67	70	70	2E	63
	B31	**B32**	**B33**	**B34**	**B35**	**B36**	**B37**	**B38**	**B39**	**B40**
	6F	6D	FF	FF	FF	FF	FF	FF	FF	FF
	B41	**B42**	**B43**	**B44**	**B45**	**B46**	**B47**	**B48**	**B49**	**B50**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B51	**B52**	**B53**	**B54**	**B55**	**B56**	**B57**	**B58**	**B59**	**B60**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF

Record 3:

Logically: tel:+11234567890

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	10	74	65	6C	3A	2B	31	31	32
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	33	34	35	36	37	38	39	30	FF	FF
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B31	**B32**	**B33**	**B34**	**B35**	**B36**	**B37**	**B38**	**B39**	**B40**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B41	**B42**	**B43**	**B44**	**B45**	**B46**	**B47**	**B48**	**B49**	**B50**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B51	**B52**	**B53**	**B54**	**B55**	**B56**	**B57**	**B58**	**B59**	**B60**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF

EF$_{P\text{-}CSCF}$ (P-CSCF ADDRESS)

Logically:

Address Type: FQDN
P-CSCF Address: pcscf1.anyims.test.3gpp.com

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	80	1C	00	70	63	73	63	66	31	2E
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	61	6E	79	69	6D	73	2E	74	65	73
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	74	2E	33	67	70	70	2E	63	6F	6D
	B31	**B32**	**B33**	**B34**	**B35**	**B36**	**B37**	**B38**	**B39**	**B40**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF

NOTE: This EF does not apply for 3GPP and shall not be used by a terminal using a 3GPP access network or a 3GPP Interworking WLAN.

EF$_{SMS}$ (Short Message Service)

At least 10 records.
All records shall be empty.

Logically: Status byte set to empty.

Coding Record 1-x (x ≥10):

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	…	B176
Hex:	00	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	…	FF

EF_{SMSR} (Short message status reports)

This EF shall contain as many records as EF_{SMS}.
All records shall be empty.

Logically: Status byte set to empty.

Coding Record 1-x (x ≥10):

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**	**B29**	**B30**
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF

EF_{SMSP} (Short message service parameters)

Logically:

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

Coding:

Byte	B1	B2	B3	...	B13	B14	B15	B16	B17	B18	B19	B20
Hex	FD	FF	FF	...	FF	09	91	11	22	33	44	55
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**				
	66	77	F8	FF	FF	FF	FF	FF				

All other records shall be empty.

EF_{SMSS} (SMS Status)

Logically:

Last used TP-MR set to"00".
Memory capacity available (flag unset b1="1").

Coding:

Byte	B1	B2
Hex	FD	FF

NOTE: For test sequences executed in accordance with the present specification, the formerly listed values replace the is configuration defined in TS 31.124 [2], clause 27.22.2C.3

4.4.3.4 Definition of E-UTRAN System Simulator parameters

The default E-UTRAN parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;
- Mobile Network Code (MNC) = 01;
- Tracking Area Code (TAC) = 0001;
- Cell Identity value = 0001.

The default EPS bearer context is defined in of TS 36.508 [5], clause 6.6.1 "Reference default EPS bearer context #1".

The default PDP type shall be "IP".

4.4.4 Definition of nrUICC values and System Simulator parameters for USAT testing - NG-RAN

4.4.4.1 Applications of the NG-RAN nrUICC

The NG-RAN nrUICC shall host at least one USIM application as defined in clause 4.4.4.2, 4.4.4.3 or 4.4.4.4.
If the nrUICC configuration shall allow IMS access it shall host an ISIM as defined in clause 4.4.4.5 in addition

4.4.4.2 Definition of NG-RAN USIM

The NG-RAN USIM application shall be configured as the default USIM in clause 4.4.2.2 of the present document with the following exceptions or additions:

EF_{UST} (USIM Service Table)

Logically:

Settings for services n°1 to n°85 in EF_{UST} are set as defined in clause 4.4.2.2. The following changes and additions apply:

Service n°86	Allowed CSG Lists and corresponding indications	available
Service n°122	5GS Mobility Management Information	available
Service n°123	5G Security Parameters	available
Service n°124	Subscription identifier privacy support	available
Service n°125	SUCI calculation by the USIM	not available

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8
binary	xx1x xx11	x1xx 111x	xx1x 1x00	1001 11xx	xxx xx11	xxxx xxxx	xxxx xxxx	xxxx xxxx
	B9	**B10**	**B11**		**B16**			
	xxxx xxxx	xxxx xxxx	xx01 xxxx	...	xxx0 111x			

The coding of EF_{UST} shall conform with the capabilities of the USIM used.

$EF_{5GS3GPPLOCI}$ (5GS 3GPP location information)

Logically:

5G-GUTI:	FF FF FF FF FF FF FF FF FF FF FF FF
TAI:	246 081 000000
5GS update status:	5U2 NOT UPDATED

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Hex	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
	B13	B14	B15	B16	B17	B18	B19	B20				
	FF	42	16	80	00	00	00	01				

$EF_{SUCI\_Calc\_Info}$ (Subscription Concealed Identifier Calculation Information EF)

Logically:

Protection Scheme Identifier List data object
Protection Scheme Identifier 1: null
Key Index 1: 0

Coding:

Byte	B1	B2	B3	B4	B5	B6
Hex	A0	02	00	00	A1	00

$EF_{Routing\_Indicator}$ (Routing Indicator EF)

Logically:

Routing Indicator: 17

Coding:

Byte	B1	B2	B3	B4
Hex	71	FF	00	00

$EF_{5GS3GPPNSC}$ (5GS 3GPP Access NAS Security Context EF)

Logically:

5GS NAS Security Context:
ngKSI: 00
K_{AMF}: 32 bytes, value not checked
Uplink NAS count: any value
Downlink NAS count: any value
Identifiers of selected NAS: any value
integrity and encryption algorithms:
Identifiers of selected EPS NAS: any value
integrity and encryption algorithms
for use after mobility to EPS

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	Bx
Hex	A0	XX	80	01	00	81	xx	xx	…	xx

NOTE: For test sequences executed in accordance with the present specification, the formerly listed values replace the is configuration defined in TS 31.124 [2], clause 27.22.2D.1

4.4.4.3 Definition of NG-RAN USIM supporting Rel-17 features

The NG-RAN USIM application supporting Rel-17 features shall be configured as the NG-RAN USIM in clause 4.4.4.2 of the present document with the following exceptions or additions:

EF_{UST} (USIM Service Table)

Logically:

Service n°1 to n°146 defined see coding

Service n°147 to n°152 not defined not available

Coding:

Byte:	B1	B2	B3	B4	B5	B6	B7	B8
Binary:	xxxx xx1x	xxxx xxxx	xxxx 1x00	xxxx x1xx	xxxx xx11	xxxx xxxx	xxxx xxxx	xxxx xxxx
	B9	**B10**	**B11**	**…**	**B16**	**B17**	**B18**	**B19**
	xxxx xxxx	xxxx xxxx	xx11 xxxx	...	xxx0 111x	xxxx xxxx	xxxx xxxx	0000 00xx

NOTE: For test sequences executed in accordance with the present specification, the formerly listed values replace the is configuration defined in TS 31.124 [2], clause 27.22.2D.3

4.4.4.4 Definition of NG-RAN USIM supporting CAG

The NG-RAN USIM application supporting CAG features shall be configured as the NG-RAN USIM in clause 4.4.4.2 of the present document with the following exceptions or additions:

EF_{UST} (USIM Service Table)

Logically:

Service n°1 to n°136	defined	see coding
Service n°137:	Preconfigured CAG information list	available
Service n°138 to 146	defined	see coding
Service n°147 to n°152	not defined	not available

Coding:

Byte:	B1	B2	B3	B4	B5	B6	B7	B8
Binary:	xxxx xx1x	xxxx xxxx	xxxx 1x00	xxxx x1xx	xxxx xx11	xxxx xxxx	xxxx xxxx	xxxx xxxx
	B9	**B10**	**B11**	**…**	**B16**	**B17**	**B18**	**B19**
	xxxx xxxx	xxxx xxxx	xx11 xxxx	...	xxx0 111x	xxxx xxxx	xxxx xxx1	0000 00xx

EF_{CAG} (Pre-configured CAG information list)

Logically:

PLMN:	244 083 (MCC MNC)
CAG only:	1
Range indication:	1
CAG-ID range:	00 00 00 01 – 00 00 00 07
PLMN:	244 084 (MCC MNC)
CAG only:	1
Range indication:	1
CAG-ID range:	00 00 00 01 – 00 00 00 07

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	00	1A	0C	42	34	80	03	00	00	00
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	01	00	00	00	07	0C	42	44	80	03
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**		
	00	00	00	01	00	00	00	07		

EF_{CAG} (Pre-configured CAG information list)

Logically:

PLMN:	244 083 (MCC MNC)
CAG only:	1
Range indication:	1

CAG-ID range: 00 00 00 01 – 00 00 00 07
PLMN: 244 084 (MCC MNC)
CAG only: 1
Range indication: 1
CAG-ID range: 00 00 00 01 – 00 00 00 07

Coding:

Byte	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Hex	00	1A	0C	42	34	80	03	00	00	00
	B11	**B12**	**B13**	**B14**	**B15**	**B16**	**B17**	**B18**	**B19**	**B20**
	01	00	00	00	07	0C	42	44	80	03
	B21	**B22**	**B23**	**B24**	**B25**	**B26**	**B27**	**B28**		
	00	00	00	01	00	00	00	07		

NOTE: For test sequences executed in accordance with the present specification, the formerly listed values replace the is configuration defined in TS 31.124 [2], clause 27.22.2D.4

4.4.4.5 Definition of NG-RAN ISIM values

The NG-RAN ISIM shall contain an ISIM configuration as defined in clause 4.4.3.3 of the present document.

NOTE: For test sequences executed in accordance with the present specification, the formerly listed values replace the is configuration defined in TS 31.124 [2], clause 27.22.2E.2

4.4.4.6 Definition of NG-RAN System Simulator parameters

The default NG-RAN parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;
- Mobile Network Code (MNC) = 01;
- Tracking Area Code (TAC) = 000001;
- Cell Identity value = 0001 (36 bits).

5 Testing methodology in general

When possible, the present document refers to ETSI TS 102 384 [3] to describe generic aspects of application toolkit tests

5.1 Testing of optional functions and procedures

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

if it is implemented in the ME.

5.2 Test interfaces and facilities

The UICC and SAT-NG-SS, NG-SS/NB-SS/E-USS interfaces provide the main test interfaces for the purpose of performing conformance tests.

The tests which require a network simulator shall be carried out with using a Next Generation System Simulator when accessing a NG-RAN, a Satellite Next Generation System Simulator when accessing a SAT-NG-RAN, a NB System Simulator when accessing an E-UTRAN in NB-S1 mode, an Evolved Universal System Simulator when accessing an E-UTRAN in WB-S1 mode.

5.3 Information to be provided by the apparatus supplier

The information to be provided by the apparatus supplier specified in TS 38.508-1 [4], TS 36.523-2 [24], TS 36.508 [5] and TS 34.108 [6] shall apply, unless otherwise specified in the present clause.

In addition, the apparatus supplier shall provide the information with respect to the supported Option table A.1 and to ME's default configuration table A.2.

Table A.2: ME's default configuration

Item	Option	Status	Support	Mnemonic
For the declaration of the ME's default configuration the contents of Table A.2 as defined in TS 31.124 [2]clause 5.3 shall be used.				

6 Implicit testing

For some 3GPP features conformance is not verified explicitly in the present document. This does not imply that correct functioning of these features is not essential, but that these are implicitly tested to a sufficient degree in other tests.

It should be noted that for these features some aspects must be explicitly tested, e.g. the ability to switch between 1.8 V and 3.0 V operation.

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

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

7 Measurement uncertainty

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

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

8 Format of tests

The Format of tests defined in TS 31.124 [2], clause 8 applies.

9 Generic call set up procedures

The generic call set up procedures as defined in TS 31.124 [2], clause 9 apply.

10 USIM Application Toolkit (USAT) testing on an ME with non-removable UICC

10.1 Introduction

The introduction provided in TS 31.124 [2], clause 27.0 applies.

10.2 General Test purpose

The General Test purpose defined in TS 31.124 [2], clause 27.22.1A applies.

10.3 Initialization of USAT functionality on an ME with non-removable UICC

10.3.1 Verification of the USAT support on an ME with non-removable UICC (Profile Download)

10.3.1.1 Definition and applicability

See clause 3.6.2 of the present document.

10.3.1.2 Conformance requirement

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

- TS 31.111 [20] clause 5.2.

10.3.1.3 Test purpose

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

10.3.1.4 Method of test

10.3.1.4.1 Initial conditions

The ME is connected to the TT. The nrUICC in the ME is configured as defined in clause 4.4.2 of the present document and hosts a USIM with elementary files coded as defined in clause 4.4.2.2.

10.3.1.4.2 Procedure

Expected Sequence 1 (PROFILE DOWNLOAD)

Step	Direction	Message / Action	Information
1	USER → ME	Power on ME	[UICC Activation]
2	ME → UICC	Select EF_{PL}	
3	UICC → ME	Read EF_{PL}	
4	ME → UICC	TERMINAL PROFILE 1.1	PROFILE DOWNLOAD
5	UICC → ME	NORMAL ENDING OF COMMAND 1.1	
6	ME → UICC	Select USIM Application	

TERMINAL PROFILE: 1.1

Logically:

Coding:

APDU	CLA=80	INS=10	P1=00	P2=00	P3=XX

DATA IN:	YY	ZZ	..

With XX representing the length of the following DATA IN depending on the USIM Toolkit commands supported by the ME, and with YY, ZZ, .. representing here the bytes of the TERMINAL PROFILE data, as specified in TS 31.111 [20], clause 5.2.

NORMAL ENDING OF COMMAND: 1.1

Logically:

Coding:

SW1=90	SW2=00

10.3.1.5 Test requirement

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

10.3.2 Contents of the TERMINAL PROFILE command

10.3.2.1 Definition and applicability

See table E.1 in annex B of TS 31.124 [2].

10.3.2.2 Conformance requirement

CR 1 The ME shall support the PROFILE DOWNLOAD command as defined in:
- TS 31.111 [20] clause 5.2.

10.3.2.3 Test purpose

The purpose of this test is to:

1. verify that the TERMINAL PROFILE indicates that Profile Download facility is supported.
2. record which USIM Application Toolkit facilities are supported by the ME, to determine which subsequent tests are required.

10.3.2.4 Method of test

10.3.2.4.1 Initial conditions

The ME is connected to the TT. The nrUICC in the ME is configured as defined in clause 4.4.2 of the present document and hosts a USIM with elementary files coded as defined in clause 4.4.2.2.

10.3.2.4.2 Procedure

Step	Direction	Action	Information
1	USER > ME	Power on ME	[UICC Activation]
2	ME > TT	Send TERMINAL PROFILE	The TT shall record the content of the TERMINAL PROFILE
3	UICC > ME	Return SW1/SW2: '90 00'	
4	USER > ME	Power off ME	

10.3.2.5 Test requirement

The ME shall operate in the manner defined in the test procedure.

10.3.2.6 Acceptance criteria

CR 1 is met if a TERMINAL PROFILE command with bit 1 of the first byte set to 1 (facility supported by ME) is sent and if the TERMINAL PROFILE information "support" recorded is in accordance with the "Status" column as defined in table E.1 for the corresponding ME USIM Toolkit Release and Options

NOTE: Support of features defined only in releases later than currently tested release shall be ignored.

10.3.3 Servicing of proactive UICC commands

10.3.3.1 Definition and applicability

See clause 3.6.2 of the present document.

10.3.3.2 Conformance requirement

CR 1 On detection of a pending USIM Application Toolkit command from the UICC the ME shall perform the FETCH command to retrieve the proactive UICC command. The result of the executed command shall be transmitted from the ME to the UICC within a TERMINAL RESPONSE command.

- TS 31.111 [20] clause 6.3.

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

10.3.3.3 Test purpose

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

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

10.3.3.4 Method of test

10.3.3.4.1 Initial conditions

The ME is connected to the TT. The nrUICC in the ME is configured as defined in clause 4.4.2 of the present document and hosts a USIM with elementary files coded as defined in clause 4.4.2.2.

A process is established to make the nrUSIM indicate that a proactive UICC command is pending. The nrUSIM is configured to send the Proactive command 'MORE TIME'.

A test toolkit applet shall be used for generating proactive UICC commands specific to the test case and TT shall be able to trigger the MORE TIME proactive commands using the applet. One or more test specific EFs may be required to program data required for the proactive command.

Depending on the capabilities supported by device and nrUICC, APDUs of FETCH and TERMINAL RESPONSE commands shall be verified using either of the methods defined in clauses 4.1.3 and 4.1.4 of the present document (A.4/2 and A.4/1).

10.3.3.4.2 Procedure

Step	Direction	MESSAGE / Action	Information / Comments
1	USER > ME	Power on ME	[UICC Activation]
2	ME	Execute PROFILE DOWNLOAD	
3	nrUSIM > ME	Return SW1/SW2: '91 0B'	The nrUSIM indicates that a Proactive UICC Command is pending
4	ME > nrUSIM	Send FETCH command	

5	nrUSIM > ME	Return Proactive UICC Command 2.1: MORE TIME	
6	USER > ME	Power off ME	

10.3.3.5 Test requirement

The ME shall operate in the manner defined in the test procedure.

10.3.3.6 Acceptance criteria

CR 1 is met if the ME sends a FETCH command in step 4) and it can be verified via A.4/x method that the TERMINAL RESPONSE command with command number "01", type of command "02" and command qualifier "00".

10.4 Proactive UICC commands

10.4.1 DISPLAY TEXT

10.4.1.1 DISPLAY TEXT (Normal)

For test sequences 1.1 to 1.9 the test descriptions from TS 31.124 [2], clause 27.22.4.1.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

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

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.3 DISPLAY TEXT (Display of extension text)

For test sequence 3.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.4 DISPLAY TEXT (Sustained text)

For test sequences 4.1 to 4.3 the test descriptions from TS 31.124 [2], clause 27.22.4.1.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.5 DISPLAY TEXT (Display of icons)

For test sequences 5.1 to 5.3 the test descriptions from TS 31.124 [2], clause 27.22.4.1.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.6 DISPLAY TEXT (UCS2 display in Cyrillic)

For test sequence 6.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.7 DISPLAY TEXT (Variable Time out)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.8 DISPLAY TEXT (Support of Text Attribute)

For test sequences 8.1 to 8.10 the test descriptions from TS 31.124 [2], clause 27.22.4.1.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.9 DISPLAY TEXT (UCS2 display in Chinese)

For test sequence 9.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.1.10 DISPLAY TEXT (UCS2 display in Katakana)

For test sequence 10.1 the test descriptions from TS 31.124 [2], clause 27.22.4.1.10 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2 GET INKEY

10.4.2.1 GET INKEY (Normal)

For test sequences 1.1 to 1.6 the test descriptions from TS 31.124 [2], clause 27.22.4.2.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.2 GET INKEY (No response from User)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.3 GET INKEY (UCS2 display in Cyrillic)

For test sequence 3.1 and 3.2 the test descriptions from TS 31.124 [2], clause 27.22.4.2.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.4 GET INKEY (UCS2 entry in Cyrillic)

For test sequence 4.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.5 GET INKEY ("Yes/No" Response)

For test sequence 5.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2,

10.4.2.6 GET INKEY (Display of icons)

For test sequences 6.1 to 6.4 the test descriptions from TS 31.124 [2], clause 27.22.4.2.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2,

10.4.2.7 GET INKEY (Help Information)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.8 GET INKEY (Variable Time out)

For test sequence 8.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.9 GET INKEY (Support of Text Attribute)

For test sequence 9.1 to 9.10 the test descriptions from TS 31.124 [2], clause 27.22.4.2.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.10 GET INKEY (UCS2 display in Chinese)

For test sequences 10.1 and 10.2 the test descriptions from TS 31.124 [2], clause 27.22.4.2.10 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.11 GET INKEY (UCS2 entry in Chinese)

For test sequence 11.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.11 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.12 GET INKEY (UCS2 display in Katakana)

For test sequences 12.1 and 12.2 the test descriptions from TS 31.124 [2], clause 27.22.4.2.12 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.2.13 GET INKEY (UCS2 entry in Katakana)

For test sequence 13.1 the test descriptions from TS 31.124 [2], clause 27.22.4.2.13 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3 GET INPUT

10.4.3.1 GET INPUT (Normal)

For test sequences 1.1 to 1.10 the test descriptions from TS 31.124 [2], clause 27.22.4.3.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.2 GET INPUT (No response from User)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.3.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.3 GET INPUT (UCS2 display in Cyrillic)

For test sequences 3.1 and 3.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.4 GET INPUT (UCS2 entry in Cyrillic)

For test sequences 4.1 and 4.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.5 GET INPUT (Default text)

For test sequences 5.1 and 5.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.6 GET INPUT (Display of icons)

For test sequences 6.1 to 6.4 the test descriptions from TS 31.124 [2], clause 27.22.4.3.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.7 GET INPUT (Help Information)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.3.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.8 GET INPUT (Support of Text Attribute)

For test sequences 8.1 to 8.10 the test descriptions from TS 31.124 [2], clause 27.22.4.3.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.9 GET INPUT (UCS2 display in Chinese)

For test sequences 9.1 and 9.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.10 GET INPUT (UCS2 entry in Chinese)

For test sequences 10.1 and 10.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.10 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.11 GET INPUT (UCS2 display in Katakana)

For test sequences 11.1 and 11.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.11 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.3.12 GET INPUT (UCS2 entry in Katakana)

For test sequences 12.1 and 12.2 the test descriptions from TS 31.124 [2], clause 27.22.4.3.12 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.4 MORE TIME

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.4.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.5 PLAY TONE

10.4.5.2 PLAY TONE (UCS2 display in Cyrillic)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.5.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.5.3 PLAY TONE (Display of icons)

For test sequences 3.1 and 3.4 the test descriptions from TS 31.124 [2], clause 27.22.4.5.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.5.4 PLAY TONE (Support of Text Attribute)

For test sequences 4.1 to 4.10 the test descriptions from TS 31.124 [2], clause 27.22.4.5.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.5.5 PLAY TONE (UCS2 display in Chinese)

For test sequence 5.1 the test descriptions from TS 31.124 [2], clause 27.22.4.5.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.5.6 PLAY TONE (UCS2 display in Katakana)

For test sequence 6.1 the test descriptions from TS 31.124 [2], clause 27.22.4.5.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.6 POLL INTERVAL

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.4.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.7 REFRESH

10.4.7.1 REFRESH (Normal)

For test sequences 1.3 and 1.5 the test descriptions from TS 31.124 [2], clause 27.22.4.7.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.
- If not available already, the nrUICC is configured to provide a global phonebook to execute test sequence 1.3.

Test sequences 1.1, 1.2, 1.4, 1.6 and 1.7 are not applicable to MEs operating a nrUICC.

10.4.7.2 REFRESH (IMSI changing procedure)

FFS

10.4.7.3 REFRESH (Steering of roaming)

For test sequences 3.3 and 3.4 the test descriptions from TS 31.124 [2], clause 27.22.4.7.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- For test sequences 3.3 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 plus the additional parameters provided for sequence 3.3 in TS 31.124 [2], clause 27.22.4.7.3.4.1.
- For test sequences 3.4 the USIM is configured with values for USIM Application Toolkit testing as defined in clause 4.4.5 of the present document plus the additional parameters provided for sequence 3.4 in TS 31.124 [2], clause 27.22.4.7.3.4.1.

Test sequences 3.1 and 3.2 are not applicable to MEs operating a nrUICC.

10.4.7.4 REFRESH (AID)

For test sequence 4.1 the test descriptions from TS 31.124 [2], clause 27.22.4.7.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2. and an ISIM as defined in clause 4.4.3.3.

10.4.7.5 REFRESH (IMSI changing procedure, E-UTRAN)

For test sequences 5.1 and 5.2 the test descriptions from TS 31.124 [2], clause 27.22.4.7.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.

10.4.7.6 REFRESH (IMSI changing procedure, NG-RAN)

For test sequences 6.1 to 6.4 the test descriptions from TS 31.124 [2], clause 27.22.4.1.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.

10.4.7.7 REFRESH (SUPI_NAI changing procedure, NG-RAN)

For test sequences 7.1 to 7.4 the test descriptions from TS 31.124 [2], clause 27.22.4.7.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the exceptions defined in clause 27.22.4.7.7.4.1 of TS 31.124 [2].
- The NG-RAN simulator of the TT is configured with the parameters provided in clause 27.22.4.7.7.4.1 of TS 31.124 [2].

10.4.7.8 REFRESH (USIM File Change Notification for Generic Bootstrapping Procedure Request, NG-RAN)

For test sequence 8.1 the test descriptions from TS 31.124 [2], clause 27.22.4.7.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the exceptions defined in clause 27.22.4.7.8.4.1 of TS 31.124 [2].
- The NG-RAN simulator of the TT is configured with the parameters provided in clause 27.22.4.7.8.4.1 of TS 31.124 [2].

10.4.8 SET UP MENU and ENVELOPE MENU SELECTION

10.4.8.1 SET UP MENU (Normal) and ENVELOPE MENU SELECTION

For test sequences 1.1 and 1.2 the test descriptions from TS 31.124 [2], clause 27.22.4.8.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.2 SET UP MENU (Help request support) and ENVELOPE MENU SELECTION

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.3 SET UP MENU (Help request support) and ENVELOPE MENU SELECTION

For test sequence 3.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.4 SET UP MENU (Display of icons) and ENVELOPE MENU SELECTION

For test sequences 4.1 and 4.2 the test descriptions from TS 31.124 [2], clause 27.22.4.8.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.5 SET UP MENU (Soft Keys support) and ENVELOPE MENU SELECTION

For test sequence 5.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.6 SET UP MENU (Support of Text Attribute) and ENVELOPE MENU SELECTION

For test sequences 6.1 to 6.10 the test descriptions from TS 31.124 [2], clause 27.22.4.8.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.7 SET UP MENU (UCS2 display in Cyrillic) and ENVELOPE MENU SELECTION

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.8 SET UP MENU (UCS2 display in Chinese) and ENVELOPE MENU SELECTION

For test sequence 8.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.8.9 SET UP MENU (UCS2 display in Katakana) and ENVELOPE MENU SELECTION

For test sequence 9.1 the test descriptions from TS 31.124 [2], clause 27.22.4.8.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9 SELECT ITEM

10.4.9.1 SELECT ITEM (Mandatory features for ME supporting SELECT ITEM)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.2 SELECT ITEM (Next action support)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.3 SELECT ITEM (Default item support)

For test sequence 3.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.4 SELECT ITEM ((Help request support)

For test sequence 4.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.5 SELECT ITEM (Icons support)

For test sequences 5.1 and 5.2 the test descriptions from TS 31.124 [2], clause 27.22.4.9.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.6 SELECT ITEM (Presentation style)

For test sequences 6.1 and 6.2 the test descriptions from TS 31.124 [2], clause 27.22.4.9.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.7 SELECT ITEM (Soft keys support)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.8 SELECT ITEM (Support of "No response from user")

For test sequence 8.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.9 SELECT ITEM (Support of Text Attribute)

For test sequences 9.1 to 9.10 the test descriptions from TS 31.124 [2], clause 27.22.4.9.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.10 SELECT ITEM (UCS2 display in Cyrillic)

For test sequences 10.1 to 10.3 the test descriptions from TS 31.124 [2], clause 27.22.4.9.10 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.11 SELECT ITEM (UCS2 display in Chinese)

For test sequence 11.1 the test descriptions from TS 31.124 [2], clause 27.22.4.9.11 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.9.12 SELECT ITEM (UCS2 display in Katakana)

For test sequences 12.1 to 12.3 the test descriptions from TS 31.124 [2], clause 27.22.4.9.12 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.10 SEND SHORT MESSAGE

10.4.10.1 SEND SHORT MESSAGE (Normal)

FFS

10.4.10.2 SEND SHORT MESSAGE (UCS2 display in Cyrillic)

FFS

10.4.10.3 SEND SHORT MESSAGE (Icon support)

FFS

10.4.10.4 SEND SHORT MESSAGE (Support of Text Attribute)

FFS

10.4.10.5 SEND SHORT MESSAGE (UCS2 display in Chinese)

FFS

10.4.10.6 SEND SHORT MESSAGE (UCS2 display in Katakana)

FFS

10.4.10.7 SEND SHORT MESSAGE (IMS)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.10.7.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 and an ISIM as defined in clause 4.4.3.3.

Test sequence 7.2 is not applicable to MEs operating a nrUICC.

10.4.10.8 SEND SHORT MESSAGE (Over SGs in E-UTRAN)

For test sequence 8.1 the test descriptions from TS 31.124 [2], clause 27.22.4.10.8.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.

10.4.11 SEND SS

FFS

10.4.12 SEND USSD

FFS

10.4.13 SET UP CALL

FFS

10.4.14 POLLING OFF

For test sequences 1.2 and 1.3 the test descriptions from TS 31.124 [2], clause 27.22.4.14.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- For sequence 1.2 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.
- For sequence 1.3 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.

Test sequence 1.1 is not applicable to MEs operating a nrUICC.

10.4.15 PROVIDE LOCAL INFORMATION

For test sequences 1.2, 1.4, 1.5, 1.9 to 1.11, 1.14 to 1.18 and 1.22 to 1.32 the test descriptions from TS 31.124 [2], clause 27.22.4.15.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- For test sequences 1.2, 1.4, 1.5, 1.9 to 1.11 and 1.14 to 1.18 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.
- For test sequences 1.22 to 1.32 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.

Test sequences 1.1, 1.3, 1.6, 1.7, 1.12 and 1.13 are not applicable to MEs operating a nrUICC.

Test sequence 1.8 is voided and test sequences 1.19 to 1.21 are "TBD" in TS 31.124 [2]. For editorial purposes the numbering in the present specification is kept identical.

10.4.16 SET UP EVENT LIST

FFS

10.4.17 PERFORM CARD APDU

10.4.17.1 PERFORM CARD APDU (Normal)

For test sequences 1.1 and 1.3 to 1.5 the test descriptions from TS 31.124 [2], clause 27.22.4.17.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

Test sequence 1.2 is not applicable to MEs operating a nrUICC.

10.4.17.2 PERFORM CARD APDU (Detachable card reader)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.17.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.18 POWER OFF CARD

10.4.18.1 POWER OFF CARD (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.4.18.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.18.2 POWER OFF CARD (Detachable card reader)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.18.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.19 POWER ON CARD

10.4.19.1 POWER ON CARD (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.4.19.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.19.2 POWER ON CARD (Detachable card reader)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.19.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.20 GET READER STATUS

10.4.20.1 GET READER STATUS (Normal)

For test sequences 1.1 and 1.2 the test descriptions from TS 31.124 [2], clause 27.22.4.18.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.20.2 GET READER STATUS (Detachable card reader)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.4.20.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.21 TIMER MANAGEMENT and ENVELOPE TIMER EXPIRATION

10.4.21.1 TIMER MANAGEMENT (Normal)

For test sequences 1.1 to 1.6 the test descriptions from TS 31.124 [2], clause 27.22.4.21.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.
- The nrUICC related test cases shall not validate the pre-defined hardcoded timer identifiers used in existing test descriptions, as variable timer identifiers may be used.

10.4.21.2 ENVELOPE TIMER EXPIRATION (Normal)

For test sequences 2.1 and 2.2 the test descriptions from TS 31.124 [2], clause 27.22.4.21.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.
- The nrUICC related test cases shall not validate the pre-defined hardcoded timer identifiers used in existing test descriptions, as variable timer identifiers may be used.

10.4.22 SET UP IDLE MODE TEXT

Test sequences for SET UP IDLE MODE TEXT currently defined in TS 31.124 [2] are not applicable for MEs operating a nrUICC. For editorial purposes the clause and the clause numbering are kept.

10.4.23 RUN AT COMMAND

10.4.23.1 RUN AT COMMAND (Normal)

For test sequences 1.1 to 1.3 the test descriptions from TS 31.124 [2], clause 27.22.4.23.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.23.2 RUN AT COMMAND (Icon support)

For test sequences 2.1 to 2.5 the test descriptions from TS 31.124 [2], clause 27.22.4.23.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.23.3 RUN AT COMMAND (Support of Text Attribute)

For test sequences 3.1 to 3.10 the test descriptions from TS 31.124 [2], clause 27.22.4.23.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.23.4 RUN AT COMMAND (UCS2 display in Cyrillic)

For test sequence 4.1 the test descriptions from TS 31.124 [2], clause 27.22.4.23.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.23.5 RUN AT COMMAND (UCS2 display in Chinese)

For test sequence 5.1 the test descriptions from TS 31.124 [2], clause 27.22.4.23.5 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.23.6 RUN AT COMMAND (UCS2 display in Katakana

For test sequence 6.1 the test descriptions from TS 31.124 [2], clause 27.22.4.23.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.24 SEND DTMF

FFS

10.4.25 LANGUAGE NOTIFICATION

For test sequences 1.1 and 1.2 the test descriptions from TS 31.124 [2], clause 27.22.4.25 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.26 LAUNCH BROWSER

10.4.26.1 LAUNCH BROWSER (No session already launched)

FFS

10.4.26.2 LAUNCH BROWSER (Interaction with current session)

FFS

10.4.26.3 LAUNCH BROWSER (UCS2 display in Cyrillic)

FFS

10.4.26.4 LAUNCH BROWSER (Icon Support)

FFS

10.4.26.5 LAUNCH BROWSER (Support of Text Attribute)

FFS

10.4.26.6 LAUNCH BROWSER (UCS2 Display in Chinese)

FFS

10.4.26.7 LAUNCH BROWSER (UCS2 Display in Katakana)

FFS

10.4.26.8 LAUNCH BROWSER (NG-RAN bearer)

For test sequences 8.1 to 8.5 the test descriptions from TS 31.124 [2], clause 27.22.4.20.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- For test sequences 8.1 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.
- For test sequences 8.2 to 8.5 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 and an ISIM as defined in clause 4.4.4.5.
- Additional parameters provided in TS 31.124 [2], clause 27.22.4.26.8.4.1 apply to the appropriate configuration.

10.4.27 OPEN CHANNEL

10.4.27.1 Void

Clause kept for editorial reasons.

10.4.26.2 OPEN CHANNEL (Related to GPRS)

FFS

10.4.26.3 OPEN CHANNEL (Default Bearer)

FFS

10.4.26.4 OPEN CHANNEL (Local Bearer)

FFS

10.4.26.5 OPEN CHANNEL (GPRS, Support of Text Attribute)

FFS

10.4.27.6 OPEN CHANNEL (Related to E-UTRAN)

For test sequences 6.1 to 6.8 the test descriptions from TS 31.124 [2], clause 27.22.4.27.6 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.27.7 OPEN CHANNEL (UICC Access to IMS)

For test sequence 7.1 the test descriptions from TS 31.124 [2], clause 27.22.4.27.7 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 and an ISIM as defined in clause 4.4.3.3 plus the additional parameters provided for sequence 7.1 in TS 31.124 [2], clause 27.22.4.27.7.4.1.

10.4.27.8 OPEN CHANNEL (related to NG-RAN)

For test sequences 8.1 to 8.6 the test descriptions from TS 31.124 [2], clause 27.22.4.27.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.4.27.8.4.1.

10.4.27.9 OPEN CHANNEL (related to Satellite NG-RAN)

For test sequences 9.1 to 9.6 the test descriptions from TS 31.124 [2], clause 27.22.4.27.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.4.27.9.4.1.

10.4.28 CLOSE CHANNEL

10.4.28.1 CLOSE CHANNEL (Normal)

FFS

10.4.28.2 CLOSE CHANNEL (support of Text Attribute)

FFS

10.4.28.3 CLOSE CHANNEL (E-UTRAN/EPC)

For test sequences 3.1 to 3.3 the test descriptions from TS 31.124 [2], clause 27.22.4.28.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.4.28.3.4.1.

10.4.28.4 CLOSE CHANNEL (NG-RAN)

For test sequences 4.1 and 4.2 the test descriptions from TS 31.124 [2], clause 27.22.4.28.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.4.28.4.4.1.

10.4.29 RECEIVE DATA

10.4.29.1 RECEIVE DATA (Normal)

For test sequences 1.2 to 1.5 and 1.7 the test descriptions from TS 31.124 [2], clause 27.22.4.29.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- For test sequences 1.2 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.

- For test sequences 1.3 to 1.5 and 1.7 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.

- Additional parameters provided in TS 31.124 [2], clause 27.22.4.29.1.4.1 apply to the appropriate configuration.

Test sequences 1.1 and 1.6 are not applicable to MEs operating a nrUICC.

10.4.29.2 RECEIVE DATA (Support of Text Attribute)

FFS

10.4.30 SEND DATA

10.4.30.1 SEND DATA (Normal)

FFS

10.4.30.2 SEND DATA (Support of Text Attribute)

FFS

10.4.30.3 SEND DATA(E-UTRAN)

For test sequences 3.1 and 3.2 the test descriptions from TS 31.124 [2], clause 27.22.4.30.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.4.30.4 SEND DATA(NG-RAN)

For test sequences 4.1 to 4.3 the test descriptions from TS 31.124 [2], clause 27.22.4.30.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply

- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.4.30.4.4.1.

10.4.31 GET CHANNEL STATUS

For test sequences 1.4 to 1.6 the test descriptions from TS 31.124 [2], clause 27.22.4.31 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- For test sequences 1.4 and 1.5 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2.
- For test sequence 1.6 the nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2.

Test sequences 1.1 to 1.3 are not applicable to MEs operating a nrUICC.

10.5 Data Download to UICC

10.5.1 SMS-PP Data Download

FFS

10.5.2 Cell Broadcast Data Download

FFS

10.5.3 SMS-PP Data Download over IMS

For test sequence 3.1 the test descriptions from TS 31.124 [2], clause 27.22.5.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 and an ISIM as defined in clause 4.4.3.3.

Test sequence 3.2 is not applicable to MEs operating a nrUICC.

10.5.4 SMS-PP Data Download over SGs in E-UTRAN

For test sequence 4.1 the test descriptions from TS 31.124 [2], clause 27.22.5.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.6 CALL CONTROL BY USIM

10.6.1 Procedure for Mobile Originated calls

FFS

10.6.2 Procedure for Supplementary (SS) Services

FFS

10.6.3 Interaction with Fixed Dialling Number (FDN)

FFS

10.6.4 Support of Barred Dialling Number (BDN) service

FFS

10.6.5 Barred Dialling Number (BDN) service handling for terminals not supporting BDN

FFS

10.7 EVENT DOWNLOAD

10.7.1 MT Call Event

FFS

10.7.2 Call Connected Event

FFS

10.7.3 Call Disconnected Event

FFS

10.7.4 Location Status Event

10.7.4.1 Location Status Event (Normal)

For test sequences 1.2 and 1.3 the test descriptions from TS 31.124 [2], clause 27.22.7.4 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

Test sequence 1.1 is not applicable to MEs operating a nrUICC.

10.7.5 User Activity Event

10.7.5.1 User Activity Event (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.5.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.7.6 Idle Screen Available Event

FFS

10.7.7 Card Reader Status Event

10.7.7.1 Card Reader Status (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.7.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.7.7.2 Card Reader Status (Detachable card reader)

For test sequence 2.1 the test descriptions from TS 31.124 [2], clause 27.22.7.7.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.7.8 Language Selection Event

10.7.8.1 Language Selection Event (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.8.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.7.9 Browser Termination Event

FFS

10.7.10 Data Available Event

10.7.10.1 Data Available Event (Normal)

For test sequences 1.2 to 1.5 the test descriptions from TS 31.124 [2], clause 27.22.7.10.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided for sequence 1.2 to 1.5 in TS 31.124 [2], clause 27.22.7.10.4.1.

Test sequence 1.1 is not applicable to MEs operating a nrUICC.

10.7.11 Channel Status event

For test sequence 1.2 the test descriptions from TS 31.124 [2], clause 27.22.7.11 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

Test sequence 1.1 is not applicable to MEs operating a nrUICC.

10.7.12 Access Technology Change event

For test sequence 1.4 the test descriptions from TS 31.124 [2], clause 27.22.7.12 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided for sequence 1.4 in TS 31.124 [2], clause 27.22.7.12.4.1.

Test sequences 1.1 to 1.3 are not applicable to MEs operating a nrUICC.

10.7.13 Display parameter changed event

FFS

10.7.14 Local Connection event

FFS

10.7.15 Network search mode change event

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.15 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.7.16 Browsing status event

FFS

10.7.17 Network Rejection event

For test sequences 1.1 to 1.4 the test descriptions from TS 31.124 [2], clause 27.22.7.17 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 or an nrUICC as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.7.17.4.1.

10.7.18 CSG Cell Selection event

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.18 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.7.18.4.1.

10.7.19 IMS registration event

The IMS registration event is tested in 10.4.27.7.1 and 10.7.20

10.7.20 Incoming IMS data event

10.7.20.1 Incoming IMS data (Normal)

For test sequences 1.1 and 1.2 the test descriptions from TS 31.124 [2], clause 27.22.7.20 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.7.20.1.4.1.

10.7.21 Data Connection Status Change event

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.21 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 plus the additional parameters provided in TS 31.124 [2], clause 27.22.7.21.1.4.1.

10.7.22 CAG Cell Selection event

10.7.22.1 CAG Cell Selection (Normal)

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.7.22 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.4 plus the additional parameters provided in TS 31.124 [2], clause 27.22.7.22.1.4.1.

10.8 MO SHORT MESSAGE CONTROL BY USIM

For test sequences 1.10 to 1.17 the test descriptions from TS 31.124 [2], clause 27.22.8 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided for sequences 1.10 to 1.17 in TS 31.124 [2], clause 27.22.8.4.1.

Test sequences 1.1 to 1.8 are not applicable to MEs operating a nrUICC. Sequence 1.9 is voided in TS 31.124 [2], the numbering is kept identical for better readability.

10.9 Handling of command number

For test sequence 1.1 the test descriptions from TS 31.124 [2], clause 27.22.9 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2.

10.10 CALL CONTROL on EPS PDN Connection

For test sequence 1.1 to 1.7 the test descriptions from TS 31.124 [2], clause 27.22.10 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.3 of the present document, hosting a USIM as defined in clause 4.4.3.2 plus the additional parameters provided for sequences 1.1 to 1.7 in TS 31.124 [2], clause 27.22.10.1.4.1.

10.11 Call Control on PDP Context Activation

10.11.1 Procedure for Mobile Originated calls

FFS

10.12 Change eCall mode

For test sequences 1.1 to 1.3 the test descriptions from TS 31.124 [2], clause 27.22.10.12 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with default values for USIM Application Toolkit testing as defined in clause 4.4.2 of the present document, hosting a USIM as defined in clause 4.4.2.2 plus the additional parameters provided for the appropriate sequences 1.1 to 1.3 in TS 31.124 [2], clause 27.22.12.1.4.

Test sequences 1.4 and 1.5 are not applicable to MEs operating a nrUICC.

10.13 CALL CONTROL on PDU Session Establishment for NG-RAN

10.13.1 Procedure for Mobile Originated calls

For test sequences 1.1 to 1.7 the test descriptions from TS 31.124 [2], clause 27.22.10.13.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided for the appropriate sequences 1.1 to 1.7 in TS 31.124 [2], clause 27.22.13.1.4.

10.14 ENVELOPE SMS-PP Data Download on NAS messages

10.14.1 Routing Indicator Data update via DL NAS TRANSPORT messages

For test sequences 1.1 to 1.4 the test descriptions from TS 31.124 [2], clause 27.22.14.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided for the appropriate sequences 1.1 to 1.4 in TS 31.124 [2], clause 27.22.14.1.4.

10.14.2 Steering of Roaming via DL NAS TRANSPORT message

For test sequences 2.1, 2.3 and 2.4 the test descriptions from TS 31.124 [2], clause 27.22.14.2 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided for the appropriate sequences 2.1, 2.3 and 2.4 in TS 31.124 [2], clause 27.22.14.2.4.

Test sequence 2.2 is voided in TS 31.124 [2], the numbering is kept identical for better readability.

10.14.3 Steering of Roaming via REGISTRATION ACCEPT message

For test sequences 3.1 and 3.2 the test descriptions from TS 31.124 [2], clause 27.22.14.3 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided for the appropriate sequences 3.1 and 3.2 in TS 31.124 [2], clause 27.22.14.3.4.1.

Test sequence 3.2 is voided in TS 31.124 [2], the numbering is kept identical for better readability.

10.15 Geographical location discovery

For test sequence 1.1 the test description from TS 31.124 [2], clause 27.22.15.1 apply with the following exceptions:

- The General Requirements as defined in clause 4.2.1 apply
- The nrUICC is configured with values for USIM Application Toolkit testing as defined in clause 4.4.4 of the present document, hosting a USIM as defined in clause 4.4.4.2 plus the additional parameters provided for sequence 1.1 in TS 31.124 [2], clause 27.22.15.1.4.

Annex A (informative): Examples of Test-nrUICC

A.0 General information

The details provided for the Test-SIM (TestSIM) in TS 31.124 [2], Annex A apply to the Test-nrUICC used within the present test specification. Possible exceptions and additions are shown in the following clauses of Annex A.

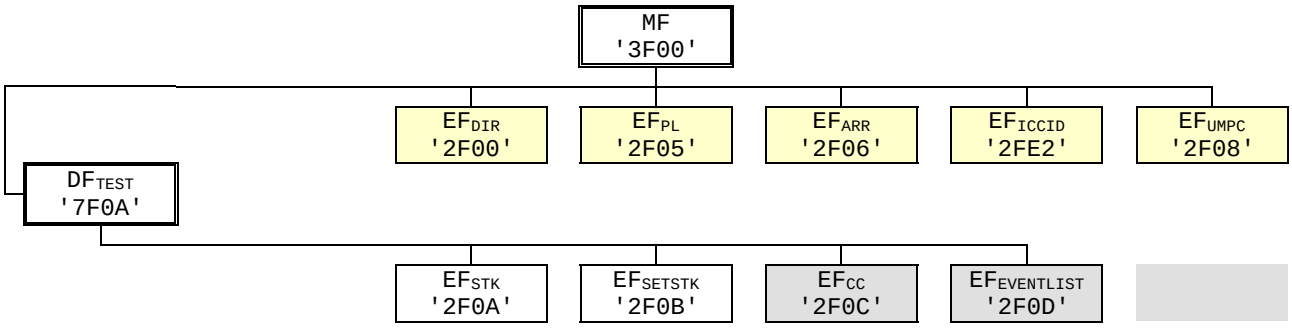
Test Tool or device manufacturer may provide the Test EF structure on the GSMA TS.48 [9] configuration depending on the test applet used for the testing.

A.1 Test EF structure - 1

DF_{TEST} shall be present at the Master File (MF) level to be used for testing purposes.

This EF structure is suggested to be used with the test environment defined in clause 4.1.3 of the present document in case USAT functionality is required to operate the test case.

The general structure of DF_{TEST} and associated EF is defined below:



The information in EF_{STK}, EF_{SETSTK}, EF_{CC}, $EF_{EVENTLIST}$ shall be used. A Generic STK Applet that utilizes the test data configured by the tester in these new EFs to trigger the required commands from the UICC shall be used.

NOTE: File ID for DF_{TEST} is implementation specific.

A.1.1 EF_{STK} (SIM Toolkit data)

Identifier: '2F0A'		Structure: linear fixed		Mandatory
Record length: 255 bytes		Update activity: low		
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS				
Record	Description	Default Value	M/O	Length
1 to X	Test Data - Record 1	'FF FF .. FF FF'	M	X bytes
..	..	..	M	X bytes
39*X+1 to 40*X	Test Data - Record 40	'FF FF .. FF FF'	M	X bytes

Each individual record can hold the tester configured data, specific to the proactive command that needs to be issued by the ME referenced by EF_{SETSTK}. For details on the structure and coding of the proactive command refer to TS 31.111 [20].

NOTE: The record length is implementation specific. It is recommended to configure a record length allowing to entirely store each of the toolkit commands required for testing.

A.1.2 EF_{SETSTK} (SET SIM Toolkit)

Identifier: '2F0B'	Structure: transparent	Mandatory
File size: 1 byte	Update activity: low	
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS		

Bytes	Description	Default Value	M/O	Length
1	Test Data	'00'	M	1 byte

Test Data is either set by the tester to the default value '0x00' or a specific record number of EF_{STK}. When read whilst set to a specific record number of EF_{STK}, it will imply to trigger the respective SIM toolkit command.

Example:

EF_{STK} is configured as '0x01':

- The test toolkit applet will issue the command stored at record 01 of EF_{STK}.
- Once the command is issued successfully, the applet will set EF_{SETSTK} to the default value.

EF_{STK} is configured as '0x80':

- the test toolkit applet will issue all available commands stored in records of EF_{STK} in sequence.

NOTE: This is helpful for tests where multiple proactive commands are required to be issued in sequence (from record 1 to n of EF_{STK}) after receiving the Terminal Response from the prior command.

A.1.3 EF_{CC} (CALL CONTROL)

Identifier: '2F0C'	Structure: transparent	Mandatory
Record length: 255 bytes	Update activity: low	
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS		

Bytes	Description	Default Value	M/O	Length
1 to 255	Test Data	'00..00'	M	255 bytes

Test Data is configured by the tester with the Call control response (as defined in TS 31.111 [20]) to process the Call Control Envelope commands received from terminal based on the Call Control service configured in UST.

For Example:

1. '00 00' implies allowed not modified.
2. '01 00' implies not allowed.
3. '02 LL…XX' implies allowed with modifications. (LL denotes the length of the TLV).

A.1.4 $EF_{EVENTLIST}$ (EVENT LIST)

Identifier: '2F0D'		Structure: transparent		Mandatory
Record length: X bytes (1 ≤ X ≤ 255)		Update activity: low		
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS				
Bytes	Description	Default Value	M/O	Length
1 to 255	Test Data	'FF .. FF'	M	255 bytes

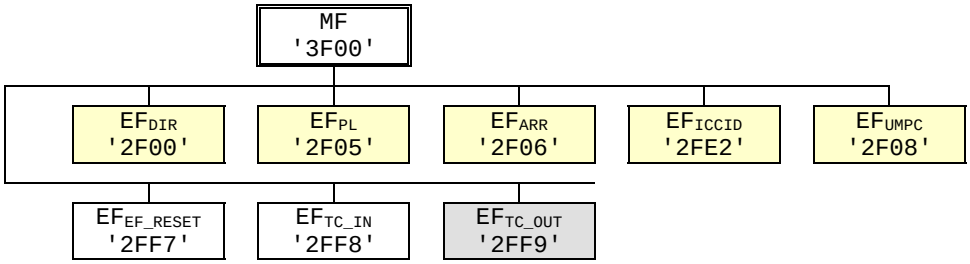
The Test data is of format <length><event1><event2>...<event n>... FF FF, where the length indicates the number of configured events as configured by the tester. Supported events are defined in TS 31.111 [20].

The data persists even after the card reset. Hence this data needs to be cleared by the tester by reverting the contents to default values (FF..FF).

A.2 Test EF structure - 2

EF_{TC_IN} and EF_{TC_OUT} files are used during test case execution, and it shall be updated fresh for each test case. EF_{EF_RESET} file is used for saving EF content required to bring back the TS.48 profile to original profile content before initializing test specific data.

This EF structure is suggested to be used with the test environment defined in clause 4.1.4 of the present document.



A.2.1 EF_{TC_IN} (Test Case Input)

This file contains data required for a test applet to handle test case execution. Content and format of the data may be changed depending on the applet implementation.

Identifier: '2FF8'		Structure: transparent		Optional
Record length: 255 bytes		Update activity: low		
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS				
Bytes	Description	Default Value	M/O	Length
1 to 255	Test Data	'FF..FF'	M	255 bytes

The EF may include data related to,

- Test step control
  - TT can update this data to direct test applet to move to next step in the test case.
- Toolkit command data

- This can be a sequence of TLVs related to proactive commands or event registrations or call control response data or any other action required for the test case.
- Different Tags can be defined for this purpose.

Example:

Bytes	Description	M/O	Length
1	Test step control	M	1 byte
2	Tag 1: Wait for new step tag	M	1 byte
3	Tag 1 length	M	1 byte
4 to 4+X	Tag 1 data	M	X bytes
5+X to 6+X	Tag 2: Proactive command tag	O	1 byte
7+X to 8+X	Tag 2 length	O	1 byte
9+X to 9+X+Y	Tag 2 data	O	Y bytes

A.2.2 EF_{TC_OUT} (Test Case Output)

This file contains data received from the ME and it can be read by the TT to verify if meeting the acceptance criteria of a test case. Additionally, few leading bytes can be used for tracking EF_{TC_IN} and EF_{TC_OUT} current offsets if required by the applet. Content and format of the data may be changed depending on the applet implementation.

Identifier: '2FF9'		Structure: transparent		Optional
Record length: 255 bytes		Update activity: low		
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS				
Bytes	Description	Default Value	M/O	Length
1 to 255	Test Data	'FF..FF'	M	255 bytes

The EF may include data related to,

- Test EFs offset control,
  - TT can update initial offsets during test case initialization.
  - TT can track and update the test EF offsets as applet executes test steps.
- Toolkit command response data received from the ME,
  - This can be a sequence of TLVs related to proactive command responses (TERMINAL RESPONSE) or envelop commands (EVENTs).
  - Different Tags can be used for this purpose.

Example:

Bytes	Description	M/O	Length
1-2	Test EFs offset control bytes	M	2 bytes
3-4	Length	M	2 bytes
5	Tag 1: Proactive command 1 tag (for TERMINAL RESPONSE 1)	O	1 byte
6	Tag 1 length	O	1 byte
7 to 7+X	Tag 1 data	O	X bytes
8+X to 9+X	Tag 2: Proactive command 2 tag (for TERMINAL RESPONSE 2)	O	1 byte
10+X to 11+X	Tag 2 length	O	1 byte
12+X to 12+X+Y	Tag 2 data	O	Y bytes

A.2.3 EF_{EF_RESET} (EF_RESET)

This file contains data required for updating EFs in the TS.48 configuration in order to restore the original content of it as part of the test case initialization. TT can request the applet through test control byte to read the content from this EF and update required EFs in the TS.48 configuration. Content and format of the data may be changed depending on the applet implementation. Content and format of the data may be changed depending on the applet implementation.

Identifier: '6F3B'	Structure: linear fixed			Optional
Record length: 128 bytes		Update activity: low		
File size: 128n, (n=25)				
Access Conditions: READ ALWAYS UPDATE ALWAYS DEACTIVATE ALWAYS ACTIVATE ALWAYS				
Byte	Description	Default Value	M/O	Length
1 to X(1)	EF content read control data	'FF FF .. FF FF'	M	X bytes
X+1 to X+1+128	Sequence of EF content data - 1	'FF FF .. FF FF'	M	128 bytes
..	..	..	..	128 bytes
..	..	..	O	128 bytes
128*24+1 to 128*25	Sequence of EF content data - 24	'FF FF .. FF FF'	O	128 bytes
NOTE 1: X depends on applet implementation.				

The EF can include data related to,

- EF content read control data,
  - TT can update this record with an instruction on what records to be read to update the EFs in TS.48 profile.
- Sequence of EF content data,
  - This can be a sequence of TLVs related to EF content in the TS.48 profile.
  - Each sequence can include data related to more than one EF in the TS.48 profile.
  - Applet can choose a format to include number of ‘FF’ padding or unused bytes instead of updating with a sequence of ‘FF’ bytes to save the size of data in a record.

Example format:

Table A.2.3-1: Example format

Record number	Data format
1	<instruction to read all none empty records>, <REFRESH flag> OR <read from start record>, <read end record>, <REFRESH flag>
NOTE: <length of pattern> and <repeated pattern> is not required if <no of repeated pattern> is 0.	

Example data:

Table A.2.3-1: Example data

Record number	Data format
1	FD,1 OR 2 ,3, 0
2	'02 6F C9 01 04 01 02 03 04 00 ..'
3	'02 6F CE 05 01 09 07 01 FF 02 6F D2 00 03 03 03 03 00 61 01 FF ..'

Annex B (normative): Details of terminal profile support

The details of the terminal profile provided in Table E.1 in TS 31.124 [2], Annex B identically apply to the present specification.

Annex C (informative): Suggested requirement lists for Test Applet functionality

A Test Applet should be installed on to a nrUICC for testing USAT functionalities or testing USIM functionalities (e.g. test environment in clause 4.1.5) if toolkit applet is required. Test Applet and TT should support general requirements in clause C.1 and the requirements in either the List-1 or List-2 in clause C.2 for test execution.

C.1 General requirements

Table C.1-1: General requirements

General requirements	
C.1.1	Test instructions or Test Input data for test case execution should be read from Test EFs.
C.1.2	Format of the test instructions input data should be defined as per the applet implementation.
C.1.3	Applet should be able to trigger proactive commands using test case instructions or input data Test EFs.
C.1.4	Applet should be able to handle Call Control events from ME and return treatments using test case instructions or input data Test EFs.
C.1.5	TT should be able to instruct the applet when to read individual test instructions for executing them sequentially and should maintain proper synchronization with the test steps executed on the TT (Network Simulator).
C.1.6	Applet should be capable of resuming test steps in a test case after a device reset or UICC RESET refresh if required (e.g. Device reset or the REFRESH is part of the test case).
C.1.7	Applet should be able to register or deregister for toolkit events in the ME - nrUICC interface. (see note 1 and 2)
C.1.8	Applet should be capable of processing concatenated envelopes (e.g., in the case of Long SoR) and to take the necessary actions according to the test requirements.
C.1.9	Applet should be able to read EF contents from a specific test file (e.g. EF_{EF_RESET}) to restore data in dedicated / standard EFs to its values in the original TS.48 configuration (e.g. prior to executing a test case). (see note 3)
C.1.10	Loading Test toolkit applets onto the nrUICC should be possible by using widely available tools.
C.1.11	Test applet should support events defined in ETSI TS 102 241 Rel-18 and TS 31.130,
NOTE 1	A SETUP EVENT LIST proactive command will be triggered by the nrUICC due to the event registration or deregistration.
NOTE 2	Applet may not receive the TERMINAL RESPONSE (TR) for the SETUP EVENT LIST proactive command. TT may use other methods to verify the TR content if required.
NOTE 3	Applet may trigger UICC RESET after restoring the EF data.

C.2 Test instruction or input data requirements

Test applet should be able to read test instruction or input data from EFs under DF_{TEST} or from $EF_{TC\_IN.}$ as defined in requirements list 1 or list 2 below.

C.2.1 Test instruction or input data requirements list-1

Requirements in the following list are suggested to be supported within the test environment for seamless testing as defined in clause 4.1.4 of the present document.

Table C.2.1-1: Requirements for Seamless testing environment

Requirements for Seamless testing environment	
C.2.1.1	TT or User should be able to configure the necessary Elementary Files (EF_{STK}, EF_{SETSTK}, EF_{CC}, $EF_{EVENTLIST}$) of the activated USIM/ISIM application using test specific configuration data prior to execution of the test procedure.

C.2.2 Test instruction or input data requirements list-2

Requirements in the following list are suggested to be supported within the test environment for Test toolkit events-based testing as defined in clause 4.1.5 of the present document.

Table C.2.2-1: Requirements for Test events-based testing

Requirements for Test events-based testing	
C.2.2.1	Test instructions or Input data for test case execution should be read from the test EF (EF_{TC_IN}) configurable by the TT prior to execution of the test procedure (during test case initialization)..

C.3 APDU content verification requirements

C.3.1 APDU content verification requirements list-1

Requirements in the following list are suggested to be supported within the test environment for seamless testing as defined in clause 4.1.4 of the present document.

Table C.3.1-1: Requirements for Seamless testing environment

Requirements for Seamless testing environment	
C.3.1.1	TT should be able to receive and process the APDU TX/RX data exchanged between UICC and ME while maintaining proper synchronization with the test steps executed in the TT.
C.3.1.2	Verification of APDU TX/RX data for the respective EF should be possible by the TT during or after the test case execution.

C.3.2 APDU content verification requirements list-2

Requirements in the following list are suggested to be supported within the test environment for seamless testing as defined in clause 4.1.5 of the present document.

Table C.3.2-1: Requirements for Test events-based testing

Requirements for Test events-based testing	
C.3.2.1	Applet should be capable of writing the contents of selected APDUs (e.g.: TERMINAL RESPONSE, ENVELOPE data, any selected APDUs etc), received from the ME - nrUICC interface to a test output file (e.g. EF_{TC_OUT}).
C.3.2.2	TT should read EF_{TC_OUT} file after the test case execution to verify the acceptance criteria.
C.3.2.3	Format of the verification data in the test output file should be defined as per the applet implementation.
C.3.2.4	Applet should be able to process the TERMINAL RESPONSE received from the ME upon triggering a proactive command from the applet.
C.3.2.5	When required by a test case, applet should be able to register or deregister for receiving an ADPU to verify its content. (see note)
NOTE:	Test events based APDU verification (clause 4.1.5) will require additional test applet support for the events EVENT_TEST_EXTERNAL_FILE_READ and EVENT_TEST_RX_APDU, defined in ETSI TS 102 241, Rel-18.

Annex D (informative): Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New**
2024-08	CT6#119-bis	C6-240459				Agreed draft version after CT6#119bis	0.1.0
2024-11	CT6#120-bis	C6-240659				Version with corrections suggested in C6#119-bis and addition of TCs newly introduced in TS 31.124	1.0.0
2024-11	CT6#120-bis	C6-240686				Correction of the incorrect numbering in the former version	0.3.0
2024-11	CT6#120-bis	C6-240706				Addition of a pCRs agreed in C6#120-bis and addition of 'Suggested requirement lists for Test Applet functionality' to Annex C	0.40.0
2024-11	CT6#120-bis	C6-240714				Correction of incorrect numbering and typos from documents attached to C6-240706	0.5.0
2024-12	CT#106	CP-243168				TS Presented for information and approval	1.0.0
2024-12	CT#106					Approved in CT#106	17.0.0
2025-06	CT#108	CP-251023	0002	-	D	Change reference from ETSI TS 102 223 to 3GPP TS 31.111	18.0.0

History

Document history		
V18.0.0	June 2025	Publication