# 27 Testing of the UICC/ME interface

## 27.0 Introduction

This clause is an addition to TS 31.121 [21] to confirm the correct interpretation of the USIM Application Toolkit commands and the correct operation of the Toolkit facilities.

The definitions, declarations and default values specified in TS 31.121 [21] clause 4.1 shall apply, unless otherwise specified in the present clause.

A USIM Simulator with the appropriate USIM Application Toolkit functionality will be required. Alternatively, USIMs programmed with specific data and USIM Application Toolkit applets may be used. The USIM data defined below shall be used for all test cases unless otherwise specified within the test case.

The comprehension required flags in SIMPLE-TLV objects that are included in a TERMINAL RESPONSE or an ENVELOPE shall be set as described in TS 31.111 [15]. This means that in cases where it is up to the ME to decide if this flag is used or not, the corresponding Tag coding in the TERMINAL RESPONSEs and ENVELOPEs in this document represents only one of the two valid possibilities.

TS 31.111 [15] defines that in case of the general result "Command performed successfully" some proactive commands require additional information in the command result and in which cases this is mandatory or optional. Thus when additional information bytes are optional in the Result TLV, the additional information bytes of the Result TLVin the Terminal Responses shall be ignored.

## 27.1 - 27.21 Void

## 27.22 USIM Application Toolkit

### 27.22.1A General Test purpose

Testing of functional conformance to USIM Application Toolkit commands, including proactive UICC commands.

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

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

### 27.22.2A Definition of default values for USIM Application Toolkit testing

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

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

- TS 31.121 [21], clause 4.1.

- ETSI TS 102 384 [26], clause 27.22.1B.

Note 1: Bx represents byte x of the coding.

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

**EFUST (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 | not available |
| Service n°86 | Allowed CSG Lists and corresponding indications | not available |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** |
| binary | xx1x xx11 | x1xx 111x | xx1x 1x00 | 1001 11xx | xxx xx11 | xxxx xxxx |
|  | **B7** | **B8** | **B9** | **B10** | **B11** |  |
|  | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx xxxx | xx00 xxxx |  |

The coding of EFUST shall conform with the capabilities of the USIM used.

**EFEST (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) |

|  |  |
| --- | --- |
| **Byte:** | **B1** |
| Coding | 00 |

**EFIMSI (International Mobile Subscriber Identity)**

Logically:

Length: 8 bytes

IMSI: 001 01 0123456789

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

**EFAD (Administrative Data)**

Logically: Type approval operations

OFM to be deactivated by the Terminal

MNC: 2 digit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 |
| Hex | 80 | 00 | 00 | 02 |

**EFLOCI (Location Information)**

Logically:

LAI-MCC: 001

LAI-MNC: 01

LAI-LAC: 0001

TMSI: "FF .. FF"

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 |
| Hex | FF | FF | FF | FF | 00 | F1 | 10 | 00 | 01 | FF | 00 |

**EFPSLOCI (Packet Switch Location Information)**

Logically:

RAI-MCC: 001

RAI-MNC: 01

RAI-LAC: 0001

RAI-RAC: 05

P-TMSI: "FF….FF"

P-TMSI signature value: "FF…FF"

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 | B6 | B7 |
| Hex | FF | FF | FF | FF | FF | FF | FF |
|  |  |  |  |  |  |  |  |
| Coding: | B8 | B9 | B10 | B11 | B12 | B13 | B14 |
| Hex | 00 | F1 | 10 | 00 | 01 | 05 | 00 |

**EFCBMI (Cell Broadcast Message Identifier)**

Logically:

Cell Broadcast Message Identifier 1: '03 E7'

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | 03 | E7 | FF | .. | FF |  |  |  |  |  |  |

**EFCBMID (Cell Broadcast Message Identifier for Data Download)**

Logically:

Cell Broadcast Message Identifier 1: '10 01'

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | 10 | 01 | FF | .. | FF |  |  |  |  |  |  |

**EFFDN (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:

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

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

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

**EFBDN (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:

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

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

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

**EFECC (Emergency Call Codes)**

Logically: Emergency call code: "122";

Emergency call code alpha identifier: "TEST";

Emergency call Service Category: RFU

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 |
| Hex | 21 | F2 | FF | 54 | 45 | 53 | 54 | 00 |

**EFSMSS (SMS Status)**

Logically: Last used TP-MR set to"00".

Memory capacity available (flag unset b1="1").

|  |  |  |
| --- | --- | --- |
| Coding: | B1 | B2 |
| Hex | 00 | FF |

**EFSMSP (Short message service parameters)**

Logically:

Record 1:

Record length: 28 bytes

Parameter Indicators:

TP-Destination Address: Parameter absent

TS-Service Centre Address: Parameter present

TP-Protocol Identifier: Parameter absent

TP-Data Coding Scheme: Parameter absent

TP-Validity Period: Parameter absent

TS-Service Centre Address:

TON: International Number

NPI: "ISDN / telephone numbering plan"

Dialled number string: "112233445566778"

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| B24 | B25 | B26 | B27 | B28 |
| FF | FF | FF | FF | FF |

For the display of icon: See ETSI TS 102 384 [26] clause 27.22.1B.

### 27.22.2B Definition of default values for LTE related USIM Application Toolkit testing

#### 27.22.2B.1 Definition of E-UTRAN/EPC UICC

For each item, the logical default values and the coding within the Elementary Files (EF) of the USIM follow, as defined in clause 27.22.2A of the present document with the following execptions:

**EFUST (USIM Service Table)**

Logically:

Settings from 27.22.2A of the present document apply with the following changes:

|  |  |  |
| --- | --- | --- |
| Service n°85 | EPS Mobility Management Information | available |

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

The coding of EFUST shall conform with the capabilities of the USIM used.

**EFEPSLOCI (EPS Information)**

Logically: GUTI: 0010100010266341122

Last visited registered TAI: 001/01/0001

EPS update status: not updated

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Byte: | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 |
| Hex: | 0B | F6 | 00 | F1 | 10 | 00 | 01 | 02 | 66 | 43 | 11 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | B12 | B13 | B14 | B15 | B16 | B17 | B18 |  |  |  |  |
|  | 22 | 00 | F1 | 10 | 00 | 01 | 01 |  |  |  |  |

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

#### 27.22.2B.2 Definition of E-UTRAN 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 "Reference default EPS bearer context #1" in cl. 6.6.1 of TS 36.508 [33].

The default PDP type shall be "IP".

### 27.22.2C Definition of E-UTRAN/EPC ISIM-UICC

#### 27.22.2C.1 Applications on the E-UTRAN/EPC ISIM-UICC

The E-UTRAN/EPC ISIM-UICC shall contain a USIM as defined in clause 27.22.2B.1 and an ISIM as defined in clause 27.22.2C.3.

#### 27.22.2C.2 Default USIM values of E-UTRAN/EPC ISIM-UICC

The E-UTRAN/EPC ISIM-UICC related test cases require a USIM to access the E-UTRAN/EPC. For this purpose the USIM shall be configured as defined in clause 27.22.2B.1.

#### 27.22.2C.3 Default ISIM values of E-UTRAN/EPC ISIM-UICC

The E-UTRAN/EPC ISIM-UICC shall contain an ISIM for IMS access with the following values:

##### 27.22.2C.3.1 EFAD (Administrative Data)

Logically: Type approval operations

|  |  |  |  |
| --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** |
| Coding: | 80 | 00 | 00 |

##### 27.22.2C.3.2 EFIST (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 [31] | | available |
| **Byte:** | **B1** | |
| Coding: | 111x xxx1 | |

##### 27.22.2C.3.3 EFIMPI (IMS private user identity)

Logically: 001010123456789@test.3gpp.com

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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 |

##### 27.22.2C.3.4 EFDOMAIN (Home Network Domain Name)

Logically: test.3gpp.com

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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 |

##### 27.22.2C.3.5 EFIMPU (IMS public user identity)

Record 1:

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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 |

##### 27.22.2C.3.6 EFP-CSCF (P-CSCF ADDRESS)

Logically:

Address Type: FQDN

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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.

##### 27.22.2C.3.7 EFSMS (Short Message Service)

At least 10 records.

All records shall be empty.

Logically: Status byte set to empty.

Record 1-x (x ≥10):

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** | **…** | **B176** |
| Coding: | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF | FF | FF | … | FF |

##### 27.22.2C.3.8 EFSMSR (Short message status reports)

This EF shall contain as many records as EFSMS.

All records shall be empty.

Logically: Status byte set to empty.

Record 1-x (x ≥10):

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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 |

##### 27.22.2C.3.9 EFSMSP (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"

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

1. All other records shall be empty.

##### 27.22.2C.3.10 EFSMSS (SMS Status)

Logically: Last used TP-MR set to"00".

a) Memory capacity available (flag unset b1="1").

|  |  |  |
| --- | --- | --- |
| Byte: | B1 | B2 |
| Coding: | 00 | FF |

#### 27.22.2C.4 Default values at DF\_TELECOM

##### 27.22.2C.4.1 EFPSISMSC (Public Service Identity of the SM-SC)

1 record only.

Logically:

Record 1:

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Coding: | 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 |

### 27.22.2D Definition of default values for NG-RAN related USIM Application Toolkit testing

#### 27.22.2D.1 Definition of NG-RAN UICC

For each item, the logical default values and the coding within the Elementary Files (EF) of the USIM follow, as defined in clause 27.22.2B of the present document with the following exceptions:

**EFUST (USIM Service Table)**

Logically:

Settings from 27.22.2B of the present document apply with the following changes:

|  |  |  |
| --- | --- | --- |
| 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 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |  |  |  |
|  | xxxx xxxx | xxxx xxxx | xx11 xxxx | ..... | xxx0 111x |  |  |  |

The coding of EFUST shall conform with the capabilities of the USIM used.

**EF5GS3GPPLOCI (5GS 3GPP location information)**

Logically:

5G-GUTI: FF FF FF FF FF FF FF FF FF FF FF FF FF

TAI: 246 081 000000

5GS update status: 5U2 NOT UPDATED

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

**EFSUCI\_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: | B1 | B2 | B3 | B4 | B5 | B6 |
| Hex | A0 | 02 | 00 | 00 | A1 | 00 |

**EFRouting\_Indicator (Routing Indicator EF)**

Logically:

Routing Indicator: 17

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 |
| Hex | 71 | FF | 00 | 00 |

**EF5GS3GPPNSC (5GS 3GPP Access NAS Security Context EF)**

Logically:

5GS NAS Security Context:

ngKSI: 00

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

#### 27.22.2D.2 Definition of NG-RAN cell 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);

#### 27.22.2D.3 Definition of NG-RAN UICC supporting Rel-17 features

For each item, the logical default values and the coding within the Elementary Files (EF) of the USIM follow, as defined in clause 27.22.2D.1 of the present document with the following exceptions:

**EFUST** (USIM Service Table)

Logically:

Settings from clause 27.22.2D.1 of the present document apply with the following changes:

|  |  |  |  |
| --- | --- | --- | --- |
| 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 |

#### 27.22.2D.4 Definition of NG-RAN UICC supporting CAG

For each item, the logical default values and the coding within the Elementary Files (EF) of the USIM follow, as defined in clause 27.22.2D.3 of the present document with the following exceptions:

**EFUST** (USIM Service Table)

Logically:

Settings from clause 27.22.2D.3 of the present document apply with the following changes:

|  |  |  |  |
| --- | --- | --- | --- |
| Service n°137: |  | Preconfigured CAG information list | 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 |

**EFCAG (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 |  |  |

### 27.22.2E Definition of NG-RAN ISIM-UICC

#### 27.22.2E.1 Applications on the NG-RAN ISIM-UICC

The NG-RAN ISIM-UICC shall contain a USIM as defined in clause 27.22.2D.1 and an ISIM as defined in clause27.22.2E.2.

#### 27.22.2E.2 Default ISIM values of NG-RAN ISIM-UICC

The NG-RAN ISIM-UICC shall contain an ISIM for IMS access. The values defined in 27.22.2C.3 shall be used.

### 27.22.1 Initialization of USIM Application Toolkit Enabled UICC by USIM Application Toolkit Enabled ME (Profile Download)

#### 27.22.1.1 Definition and applicability

See clause 3.2.2.

#### 27.22.1.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2.

#### 27.22.1.3 Test purpose

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

#### 27.22.1.4 Method of test

##### 27.22.1.4.1 Initial conditions

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

##### 27.22.1.4.2 Procedure

Expected Sequence 1 (PROFILE DOWNLOAD)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | Message / Action | Comments |
| 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 [15], clause 5.2.

**NORMAL ENDING OF COMMAND: 1.1**

Logically:

Coding:

|  |  |
| --- | --- |
| SW1=90 | SW2=00 |

#### 27.22.1.5 Test requirement

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

### 27.22.2 Contents of the TERMINAL PROFILE command

#### 27.22.2.1 Definition and applicability

See table E.1 in annex B.

#### 27.22.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2.

#### 27.22.2.3 Test purpose

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

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

#### 27.22.2.4 Method of test

##### 27.22.2.4.1 Initial conditions

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

##### 27.22.1.4.2 Procedure

a) The ME is powered on.

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

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

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

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

#### 27.22.2.5 Test requirement

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

2) In table E.1 for the corresponding ME USIM Toolkit Release and Options, The TERMINAL PROFILE information "support" recorded must be in accordance with the "Status" column. Support of features defined only in releases later than currently tested release shall be ignored.

### 27.22.3 Servicing of proactive UICC commands

#### 27.22.3.1 Definition and applicability

See clause 3.2.2.

#### 27.22.3.2 Conformance requirement

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.

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.

- TS 31.111 [15] clause 6.3.

#### 27.22.3.3 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.

#### 27.22.3.4 Method of test

##### 27.22.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

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

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

The USIM Simulator is configured to monitor the UICC - ME interface.

##### 27.22.3.4.2 Procedure

a) The ME is powered on.

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

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

#### 27.22.3.5 Test requirement

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

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

### 27.22.4 Proactive UICC commands

#### 27.22.4.1 DISPLAY TEXT

##### 27.22.4.1.1 DISPLAY TEXT (Normal)

27.22.4.1.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.1.2 Conformance requirements

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

TS 31.111 [15], clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

27.22.4.1.1.3 Test purpose

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

27.22.4.1.1.4 Method of test

27.22.4.1.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.1.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.2.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.3.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.4.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.5.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.6.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.7.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.8.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.1.4.2, Expected Sequence 1.9.

27.22.4.1.1.5 Test requirement

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

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

27.22.4.1.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.1.2.3 Test purpose

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

27.22.4.1.2.4 Method of test

27.22.4.1.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

ME Manufacturers shall set the "no response from user" period of time as declared in table A.2/1..

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

27.22.4.1.2.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.2.4.2, Expected Sequence.

2.1.27.22.4.1.2.5 Test requirement

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

##### 27.22.4.1.3 DISPLAY TEXT (Display of extension text)

27.22.4.1.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.15.

27.22.4.1.3.3 Test purpose

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

27.22.4.1.3.4 Method of test

27.22.4.1.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.3.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.3.4.2, Expected Sequence 3.1.

27.22.4.1.3.5 Test requirement

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

##### 27.22.4.1.4 DISPLAY TEXT (Sustained text)

27.22.4.1.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.15, clause 8.15.

27.22.4.1.4.3 Test purpose

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

27.22.4.1.4.4 Method of test

27.22.4.1.4.4.1 Initial conditions

The ME is connected to the USIM Simulator and only connected to the USS if the USS is mentioned in the sequence table.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.4.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.4.4.2, Expected Sequence 4.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.4.4.2, Expected Sequence 4.2.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.4.4.2, Expected Sequence 4.3.

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

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

PROACTIVE COMMAND: DISPLAY TEXT 4.4.1

Logically:

Command details

Command number: 1

Command type: DISPLAY TEXT

Command qualifier: normal priority, wait for user to clear message

Device identities

Source device: UICC

Destination device: Display

Text String

Data coding scheme: unpacked, 8 bit data

Text: "Toolkit Test 4"

Immediate Response

Coding:

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

TERMINAL RESPONSE: DISPLAY TEXT 4.4.1

Logically:

Command details

Command number: 1

Command type: DISPLAY TEXT

Command qualifier: normal priority, wait for user to clear message

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

27.22.4.1.4.5 Test requirement

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

##### 27.22.4.1.5 DISPLAY TEXT (Display of icons)

27.22.4.1.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

27.22.4.1.5.3 Test purpose

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

27.22.4.1.5.4 Method of test

27.22.4.1.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.1.5.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.1A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.1B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.2A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.2B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.3A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.1.5.4.2, Expected Sequence 5.3B.27.22.4.1.5.5 Test requirement

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

##### 27.22.4.1.6 DISPLAY TEXT (UCS2 display in Cyrillic)

27.22.4.1.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

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

27.22.4.1.6.3 Test purpose

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

27.22.4.1.6.4 Method of test

27.22.4.1.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.6.4.2 Procedure

Expected Sequence 6.1 (DISPLAY TEXT, UCS2 coded in Cyrillic)

See ETSI TS 102 384 [26] in clause 27.22.4.1.6.4.2, Expected Sequence 6.1.

27.22.4.1.6.5 Test requirement

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

##### 27.22.4.1.7 DISPLAY TEXT (Variable Time out)

27.22.4.1.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31 and clause 8.43.

The ME shall support the variable time out for the display text.

27.22.4.1.7.3 Test purpose

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

27.22.4.1.7.4 Method of test

27.22.4.1.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.7.4.2 Procedure

Expected Sequence 7.1 (DISPLAY TEXT, variable timeout of 10 seconds)

See ETSI TS 102 384 [26] in clause 27.22.4.1.7.4.2, Expected Sequence 7.1.

27.22.4.1.7.5 Test requirement

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

##### 27.22.4.1.8 DISPLAY TEXT (Support of Text Attribute)

27.22.4.1.8.1 DISPLAY TEXT (Support of Text Attribute – Left Alignment)

27.22.4.1.8.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.1.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with Left Alignment for the display text.

27.22.4.1.8.1.3 Test purpose

To verify that the ME displays the text formatted according to the left alignment text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.1.4 Method of test

27.22.4.1.8.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.1.4.2 Procedure

Expected Sequence 8.1 (DISPLAY TEXT, Text Attribute with Left Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.1.4.2, Expected Sequence 8.1.

27.22.4.1.8.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

27.22.4.1.8.2 DISPLAY TEXT (Support of Text Attribute – Center Alignment)

27.22.4.1.8.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with Centre Alignment for the display text.

27.22.4.1.8.2.3 Test purpose

To verify that the ME displays the text formatted according to the center alignment text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.2.4 Method of test

27.22.4.1.8.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.2.4.2 Procedure

**Expected Sequence 8.2 (DISPLAY TEXT, Text Attribute with Center Alignment)**

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.2.4.2, Expected Sequence 8.2.

27.22.4.1.8.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.2.

27.22.4.1.8.3 DISPLAY TEXT (Support of Text Attribute – Right Alignment)

27.22.4.1.8.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with Right Alignment for the display text.

27.22.4.1.8.3.3 Test purpose

To verify that the ME displays the text formatted according to the right alignment text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.3.4 Method of test

27.22.4.1.8.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.3.4.2 Procedure

Expected Sequence 8.3 (DISPLAY TEXT, Text Attribute with Right Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.3.4.2, Expected Sequence 8.3.

27.22.4.1.8.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.3.

27.22.4.1.8.4 DISPLAY TEXT (Support of Text Attribute – Large Font Size)

27.22.4.1.8.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with large font size for the display text.

27.22.4.1.8.4.3 Test purpose

To verify that the ME displays the text formatted according to the large size font text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.4.4 Method of test

27.22.4.1.8.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.4.4.2 Procedure

Expected Sequence 8.4 (DISPLAY TEXT, Text Attribute with Large Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.4.4.2, Expected Sequence 8.4.

27.22.4.1.8.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.4.

27.22.4.1.8.5 DISPLAY TEXT (Support of Text Attribute – Small Font Size)

27.22.4.1.8.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with small font size for the display text.

27.22.4.1.8.5.3 Test purpose

To verify that the ME displays the text formatted according to the small size font text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.5.4 Method of test

27.22.4.1.8.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.5.4.2 Procedure

Expected Sequence 8.5 (DISPLAY TEXT, Text Attribute with Small Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.5.4.2, Expected Sequence 8.5.

27.22.4.1.8.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.5.

27.22.4.1.8.6 DISPLAY TEXT (Support of Text Attribute – Bold On)

27.22.4.1.8.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with bold on for the display text.

27.22.4.1.8.6.3 Test purpose

To verify that the ME displays the text formatted according to the bold text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.6.4 Method of test

27.22.4.1.8.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.6.4.2 Procedure

Expected Sequence 8.6 (DISPLAY TEXT, Text Attribute with Bold On)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.6.4.2, Expected Sequence 8.6.

27.22.4.1.8.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.6.

27.22.4.1.8.7 DISPLAY TEXT (Support of Text Attribute – Italic On)

27.22.4.1.8.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with italic on for the display text.

27.22.4.1.8.7.3 Test purpose

To verify that the ME displays the text formatted according to the italic text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.7.4 Method of test

27.22.4.1.8.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.7.4.2 Procedure

Expected Sequence 8.7 (DISPLAY TEXT, Text Attribute with Italic On)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.7.4.2, Expected Sequence 8.7.

27.22.4.1.8.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.7.

27.22.4.1.8.8 DISPLAY TEXT (Support of Text Attribute – Underline On)

27.22.4.1.8.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.8.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with underline on for the display text.

27.22.4.1.8.8.3 Test purpose

To verify that the ME displays the text formatted according to the underline text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.8.4 Method of test

27.22.4.1.8.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.8.4.2 Procedure

Expected Sequence 8.8 (DISPLAY TEXT, Text Attribute with Underline On)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.8.4.2, Expected Sequence 8.8.

27.22.4.1.8.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.8.

27.22.4.1.8.9 DISPLAY TEXT (Support of Text Attribute – Strikethrough On)

27.22.4.1.8.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.9.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with underline on for the display text.

27.22.4.1.8.9.3 Test purpose

To verify that the ME displays the text formatted according to the strikethrough text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.9.4 Method of test

27.22.4.1.8.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.9.4.2 Procedure

Expected Sequence 8.9 (DISPLAY TEXT, Text Attribute with Strikethrough On)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.9.4.2, Expected Sequence 8.9.

27.22.4.1.8.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.9.

27.22.4.1.8.10 DISPLAY TEXT (Support of Text Attribute – Foreground and Background Colours)

27.22.4.1.8.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.8.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.31, clause 8.43 and clause 8.70.

The ME shall support the text attribute with different foreground and background colours for the display text.

27.22.4.1.8.10.3 Test purpose

To verify that the ME displays the text formatted according to the foreground and background colour text attribute configuration contained in the DISPLAY TEXT proactive UICC command, and returns a successful result in the TERMINAL RESPONSE command send to the UICC.

27.22.4.1.8.10.4 Method of test

27.22.4.1.8.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.1.8.10.4.2 Procedure

Expected Sequence 8.10 (DISPLAY TEXT, Text Attribute with Foreground and Background Colours)

See ETSI TS 102 384 [26] in clause 27.22.4.1.8.10.4.2, Expected Sequence 8.10.

27.22.4.1.8.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.10.

##### 27.22.4.1.9 DISPLAY TEXT (UCS2 display in Chinese)

27.22.4.1.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.9.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

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

27.22.4.1.9.3 Test purpose

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

27.22.4.1.9.4 Method of test

27.22.4.1.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.9.4.2 Procedure

Expected Sequence 9.1 (DISPLAY TEXT, UCS2 coded – Chinese characters)

See ETSI TS 102 384 [26] in clause 27.22.4.1.9.4.2, Expected Sequence 9.1.

27.22.4.1.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.1.

##### 27.22.4.1.10 DISPLAY TEXT (UCS2 display in Katakana)

27.22.4.1.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.1.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.1, clause 6.5.4, clause 6.6.1, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

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

27.22.4.1.10.3 Test purpose

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

27.22.4.1.10.4 Method of test

27.22.4.1.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as USIM Application Toolkit default.

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

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

27.22.4.1.10.4.2 Procedure

Expected Sequence 10.1 (DISPLAY TEXT, UCS2 coded – Katakana characters)

See ETSI TS 102 384 [26] in clause 27.22.4.1.10.4.2, Expected Sequence 10.1.

27.22.4.1.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 10.1.

#### 27.22.4.2 GET INKEY

##### 27.22.4.2.1 GET INKEY(normal)

27.22.4.2.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.1.2 Conformance Requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.2.1.3 Test purpose

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

27.22.4.2.1.4 Method of test

27.22.4.2.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.1.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.2.

Expected Sequence 1.3 (GET INKEY, backward move)

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.3.

Expected Sequence 1.4 (GET INKEY, abort)

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.4.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.5.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.1.4.2, Expected Sequence 1.6.

27.22.4.2.1.5 Test requirement

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

##### 27.22.4.2.2 GET INKEY (No response from User)

27.22.4.2.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.2.2.3 Test purpose

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

27.22.4.2.2.4 Method of test

27.22.4.2.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

ME Manufacturers shall set the "no response from user" period of time as declared in table A.2/2.

The USIM Simulator shall be set to that period of time.

27.22.4.2.2.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.2.4.2, Expected Sequence 2.1.

27.22.4.2.2.5 Test requirement

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

##### 27.22.4.2.3 GET INKEY (UCS2 display in Cyrillic)

27.22.4.2.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.3.3 Test purpose

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

27.22.4.2.3.4 Method of test

27.22.4.2.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.3.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.3.4.2, Expected Sequence 3.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.3.4.2, Expected Sequence 3.2.

27.22.4.2.3.5 Test requirement

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

##### 27.22.4.2.4 GET INKEY (UCS2 entry in Cyrillic)

27.22.4.2.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.4.3 Test purpose

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

27.22.4.2.4.4 Method of test

27.22.4.2.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.4.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.4.4.2, Expected Sequence 4.1.

27.22.4.2.4.5 Test requirement

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

##### 27.22.4.2.5 GET INKEY ("Yes/No" Response)

27.22.4.2.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.2.5.3 Test purpose

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

27.22.4.2.5.4 Method of test

27.22.4.2.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.5.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.5.4.2, Expected Sequence 5.1.

27.22.4.2.5.5 Test requirement

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

##### 27.22.4.2.6 GET INKEY (display of Icon)

27.22.4.2.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

27.22.4.2.6.3 Test purpose

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

27.22.4.2.6.4 Method of test

27.22.4.2.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.6.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.1A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.1B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.2A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.2B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.3A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.3B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.4A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.2.6.4.2, Expected Sequence 6.4B.

27.22.4.2.6.5 Test requirement

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

##### 27.22.4.2.7 GET INKEY (Help Information)

27.22.4.2.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

27.22.4.2.7.3 Test purpose

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

27.22.4.2.7.4 Method of test

27.22.4.2.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.7.4.2 Procedure

Expected Sequence 7.1 (GET INKEY, help information available)

See ETSI TS 102 384 [26] in clause 27.22.4.2.7.4.2, Expected Sequence 7.1.

27.22.4.2.7.5 Test requirement

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

##### 27.22.4.2.8 GET INKEY (Variable Time out)

27.22.4.2.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.8.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.31.

27.22.4.2.8.3 Test purpose

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

27.22.4.2.8.4 Method of test

27.22.4.2.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.8.4.2 Procedure

Expected Sequence 8.1 (GET INKEY, variable time out of 10 seconds)

See ETSI TS 102 384 [26] in clause 27.22.4.2.8.4.2, Expected Sequence 8.1.

27.22.4.2.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

##### 27.22.4.2.9 GET INKEY (Support of Text Attribute)

27.22.4.2.9.1 GET INKEY (Support of Text Attribute – Left Alignment)

27.22.4.2.9.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.1.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.1.3 Test purpose

To verify that the ME displays the text formatted according to the left alignment text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.1.4 Method of test

27.22.4.2.9.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.1.4.2 Procedure

Expected Sequence 9.1 (GET INKEY, Text attribute with Left Alignment )

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.1.4.2, Expected Sequence 9.1.

27.22.4.2.9.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.1.

27.22.4.2.9.2 GET INKEY (Support of Text Attribute – Center Alignment)

27.22.4.2.9.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.2.3 Test purpose

To verify that the ME displays the text formatted according to the center alignment text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.2.4 Method of test

27.22.4.2.9.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.2.4.2 Procedure

Expected Sequence 9.2 (GET INKEY, Text attribute with Center Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.2.4.2, Expected Sequence 9.2.

27.22.4.2.9.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.2.

27.22.4.2.9.3 GET INKEY (Support of Text Attribute – Right Alignment)

27.22.4.2.9.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.3.3 Test purpose

To verify that the ME displays the text formatted according to the right alignment text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.3.4 Method of test

27.22.4.2.9.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.3.4.2 Procedure

Expected Sequence 9.3 (GET INKEY, Text attribute with Right Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.3.4.2, Expected Sequence 9.3.

27.22.4.2.9.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.3.

27.22.4.2.9.4 GET INKEY (Support of Text Attribute – Large Font Size)

27.22.4.2.9.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.4.3 Test purpose

To verify that the ME displays the text formatted according to the large font size text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.4.4 Method of test

27.22.4.2.9.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.4.4.2 Procedure

Expected Sequence 9.4 (GET INKEY, Text attribute with Large Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.4.4.2, Expected Sequence 9.4.

27.22.4.2.9.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.4.

27.22.4.2.9.5 GET INKEY (Support of Text Attribute – Small Font Size)

27.22.4.2.9.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.5.3 Test purpose

To verify that the ME displays the text formatted according to the small font size text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.5.4 Method of test

27.22.4.2.9.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.5.4.2 Procedure

Expected Sequence 9.5 (GET INKEY, Text attribute with Small Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.5.4.2, Expected Sequence 9.5.

27.22.4.2.9.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.5.

27.22.4.2.9.6 GET INKEY (Support of Text Attribute – Bold On)

27.22.4.2.9.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.6.3 Test purpose

To verify that the ME displays the text formatted according to the bold text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.6.4 Method of test

27.22.4.2.9.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.6.4.2 Procedure

Expected Sequence 9.6 (GET INKEY, Text attribute with Bold On)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.6.4.2, Expected Sequence 9.6.

27.22.4.2.9.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.6.

27.22.4.2.9.7 GET INKEY (Support of Text Attribute – Italic On)

27.22.4.2.9.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.7.3 Test purpose

To verify that the ME displays the text formatted according to the italic text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.7.4 Method of test

27.22.4.2.9.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.7.4.2 Procedure

Expected Sequence 9.7 (GET INKEY, Text attribute with Italic On)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.7.4.2, Expected Sequence 9.7.

27.22.4.2.9.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.7.

27.22.4.2.9.8 GET INKEY (Support of Text Attribute – Underline On)

27.22.4.2.9.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.8.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.8.3 Test purpose

To verify that the ME displays the text formatted according to the underline text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.8.4 Method of test

27.22.4.2.9.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.8.4.2 Procedure

Expected Sequence 9.8 (GET INKEY, Text attribute with Underline On)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.8.4.2, Expected Sequence 9.8.

27.22.4.2.9.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.8.

27.22.4.2.9.9 GET INKEY (Support of Text Attribute – Strikethrough On)

27.22.4.2.9.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.9.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.9.3 Test purpose

To verify that the ME displays the text formatted according to the strikethrough text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.9.4 Method of test

27.22.4.2.9.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.9.4.2 Procedure

Expected Sequence 9.9 (GET INKEY, Text attribute with Strikethrough On)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.9.4.2, Expected Sequence 9.9.

27.22.4.2.9.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.9.

27.22.4.2.9.10 GET INKEY (Support of Text Attribute – Foreground and Background Colour)

27.22.4.2.9.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.9.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.5.4, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.8, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3, clause 8.31 and clause 8.70.

27.22.4.2.9.10.3 Test purpose

To verify that the ME displays the text formatted according to the foreground and background colour text attribute configuration contained in the GET INKEY proactive UICC command, and returns the text string entered in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.2.9.10.4 Method of test

27.22.4.2.9.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.2.9.10.4.2 Procedure

Expected Sequence 9.10 (GET INKEY, Text attribute with Foreground and Background Colour)

See ETSI TS 102 384 [26] in clause 27.22.4.2.9.10.4.2, Expected Sequence 9.10.

27.22.4.2.9.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.10.

##### 27.22.4.2.10 GET INKEY (UCS2 display in Chinese)

27.22.4.2.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.10.3 Test purpose

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

27.22.4.2.10.4 Method of test

27.22.4.2.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.10.4.2 Procedure

Expected Sequence 10.1 (GET INKEY, Text String coding in UCS2 Alphabet - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.10.4.2, Expected Sequence 10.1.

Expected Sequence 10.2 (GET INKEY, max length for the Text String coding in UCS2 Alphabet - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.10.4.2, Expected Sequence 10.2.

27.22.4.2.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 10.1 to 10.2.

##### 27.22.4.2.11 GET INKEY (UCS2 entry in Chinese)

27.22.4.2.11.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.11.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.11.3 Test purpose

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

27.22.4.2.11.4 Method of test

27.22.4.2.11.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.11.4.2 Procedure

Expected Sequence 11.1 (GET INKEY, characters from UCS2 alphabet - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.11.4.2, Expected Sequence 11.1.

27.22.4.2.11.5 Test requirement

The ME shall operate in the manner defined in expected sequence 11.1

##### 27.22.4.2.12 GET INKEY (UCS2 display in Katakana)

27.22.4.2.12.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.12.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.12.3 Test purpose

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

27.22.4.2.12.4 Method of test

27.22.4.2.12.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.12.4.2 Procedure

Expected Sequence 12.1 (GET INKEY, Text String coding in UCS2 Alphabet - Katakana characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.12.4.2, Expected Sequence 12.1.

Expected Sequence 12.2 (GET INKEY, max length for the Text String coding in UCS2 Alphabet - Katakana characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.12.4.2, Expected Sequence 12.2.

27.22.4.2.12.5 Test requirement

The ME shall operate in the manner defined in expected sequence 12.1 to 12.2.

##### 27.22.4.2.13 GET INKEY (UCS2 entry in Katakana)

27.22.4.2.13.1 Definition and applicability

See clause 3.2.2.

27.22.4.2.13.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.2, clause 6.6.2, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.2.13.3 Test purpose

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

27.22.4.2.13.4 Method of test

27.22.4.2.13.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.2.13.4.2 Procedure

Expected Sequence 13.1 (GET INKEY, characters from UCS2 alphabet - Katakana characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.2.13.4.2, Expected Sequence 13.1.

27.22.4.2.13.5 Test requirement

The ME shall operate in the manner defined in expected sequence 13.1

#### 27.22.4.3 GET INPUT

##### 27.22.4.3.1 GET INPUT (normal)

27.22.4.3.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.1.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.3.1.3 Test purpose

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

27.22.4.3.1.4 Method of test

27.22.4.3.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.1.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.2.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.3.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.4.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.5.

Expected Sequence 1.6 (GET INPUT, backwards move)

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.6.

Expected Sequence 1.7 (GET INPUT, abort)

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.7.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.8.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.9.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.1.4.2, Expected Sequence 1.10.

27.22.4.3.1.5 Test requirement

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

##### 27.22.4.3.2 GET INPUT (No response from User)

27.22.4.3.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.3.2.3 Test purpose

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

27.22.4.3.2.4 Method of test

27.22.4.3.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

ME Manufacturers shall set the "no response from user" period of time as declared in table A.2/3.

The USIM Simulator shall be set to that period of time.

27.22.4.3.2.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.2.4.2, Expected Sequence 2.1.

27.22.4.3.2.5 Test requirement

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

##### 27.22.4.3.3 GET INPUT (UCS2 display in Cyrillic)

27.22.4.3.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.3.3 Test purpose

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

27.22.4.3.3.4 Method of test

27.22.4.3.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.3.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.3.4.2, Expected Sequence 3.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.3.4.2, Expected Sequence 3.2.

27.22.4.3.3.5 Test requirement

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

##### 27.22.4.3.4 GET INPUT (UCS2 entry in Cyrillic)

27.22.4.3.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.4.3 Test purpose

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

27.22.4.3.4.4 Method of test

27.22.4.3.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.4.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.4.4.2, Expected Sequence 4.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.4.4.2, Expected Sequence 4.2.

27.22.4.3.4.5 Test requirement

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

##### 27.22.4.3.5 GET INPUT (default text)

27.22.4.3.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.23.

27.22.4.3.5.3 Test purpose

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

27.22.4.3.5.4 Method of test

27.22.4.3.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.5.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.5.4.2, Expected Sequence 5.1.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.5.4.2, Expected Sequence 5.2.

27.22.4.3.5.5 Test requirement

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

##### 27.22.4.3.6 GET INPUT (display of Icon)

27.22.4.3.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.5.4, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 12.31.

27.22.4.3.6.3 Test purpose

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

27.22.4.3.6.4 Method of test

27.22.4.3.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.6.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.1A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.1B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.2A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.2B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.3A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.3B.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.4A.

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.6.4.2, Expected Sequence 6.4B.

27.22.4.3.6.5 Test Requirement

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

##### 27.22.4.3.7 GET INPUT (Help Information)

27.22.4.3.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

27.22.4.3.7.3 Test purpose

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

27.22.4.3.7.4 Method of test

27.22.4.3.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.7.4.2 Procedure

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

See ETSI TS 102 384 [26] in clause 27.22.4.3.7.4.2, Expected Sequence 7.1.

27.22.4.3.7.5 Test requirement

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

##### 27.22.4.3.8 GET INPUT (Support of Text Attribute)

27.22.4.3.8.1 GET INPUT (Support of Text Attribute – Left Alignment)

27.22.4.3.8.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.1.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.1.3 Test purpose

To verify that the ME displays the text formatted according to the left alignment text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.1.4 Method of test

27.22.4.3.8.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.1.4.2 Procedure

Expected Sequence 8.1 (GET INPUT, Text attribute – Left Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.1.4.2, Expected Sequence 8.1.

27.22.4.3.8.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

27.22.4.3.8.2 GET INPUT (Support of Text Attribute – Center Alignment)

27.22.4.3.8.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.2.3 Test purpose

To verify that the ME displays the text formatted according to the center alignment text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.2.4 Method of test

27.22.4.3.8.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.2.4.2 Procedure

Expected Sequence 8.2 (GET INPUT, Text attribute – Center Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.2.4.2, Expected Sequence 8.2.

27.22.4.3.8.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.2.

27.22.4.3.8.3 GET INPUT (Support of Text Attribute – Right Alignment)

27.22.4.3.8.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.3.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.3.3 Test purpose

To verify that the ME displays the text formatted according to the right alignment text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.3.4 Method of test

27.22.4.3.8.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.3.4.2 Procedure

Expected Sequence 8.3 (GET INPUT, Text attribute – Right Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.3.4.2, Expected Sequence 8.3.

27.22.4.3.8.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.3.

27.22.4.3.8.4 GET INPUT (Support of Text Attribute – Large Font Size)

27.22.4.3.8.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.4.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.4.3 Test purpose

To verify that the ME displays the text formatted according to the large font size text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.4.4 Method of test

27.22.4.3.8.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.4.4.2 Procedure

Expected Sequence 8.4 (GET INPUT, Text attribute – Large Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.4.4.2, Expected Sequence 8.4.

27.22.4.3.8.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.4.

27.22.4.3.8.5 GET INPUT (Support of Text Attribute – Small Font Size)

27.22.4.3.8.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.5.3 Test purpose

To verify that the ME displays the text formatted according to the small font size text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.5.4 Method of test

27.22.4.3.8.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.5.4.2 Procedure

Expected Sequence 8.5 (GET INPUT, Text attribute – Small Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.5.4.2, Expected Sequence 8.5.

27.22.4.3.8.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.5.

27.22.4.3.8.6 GET INPUT (Support of Text Attribute – Bold On)

27.22.4.3.8.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.6.3 Test purpose

To verify that the ME displays the text formatted according to the bold text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.6.4 Method of test

27.22.4.3.8.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.6.4.2 Procedure

Expected Sequence 8.6 (GET INPUT, Text attribute – Bold On)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.6.4.2, Expected Sequence 8.6.

27.22.4.3.8.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.6.

27.22.4.3.8.7 GET INPUT (Support of Text Attribute – Italic On)

27.22.4.3.8.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.7.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.7.3 Test purpose

To verify that the ME displays the text formatted according to the italic text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.7.4 Method of test

27.22.4.3.8.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.7.4.2 Procedure

Expected Sequence 8.7 (GET INPUT, Text attribute – Italic On)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.7.4.2, Expected Sequence 8.7.

27.22.4.3.8.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.7.

27.22.4.3.8.8 GET INPUT (Support of Text Attribute – Underline On)

27.22.4.3.8.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.8.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.8.3 Test purpose

To verify that the ME displays the text formatted according to the underline text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.8.4 Method of test

27.22.4.3.8.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.8.4.2 Procedure

Expected Sequence 8.8 (GET INPUT, Text attribute – Underline On)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.8.4.2, Expected Sequence 8.8.

27.22.4.3.8.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.8.

27.22.4.3.8.9 GET INPUT (Support of Text Attribute – Strikethrough On)

27.22.4.3.8.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.9.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.9.3 Test purpose

To verify that the ME displays the text formatted according to the strikethrough text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.9.4 Method of test

27.22.4.3.8.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.9.4.2 Procedure

Expected Sequence 8.9 (GET INPUT, Text attribute – Strikethrough On)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.9.4.2, Expected Sequence 8.9.

27.22.4.3.8.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.9.

27.22.4.3.8.10 GET INPUT (Support of Text Attribute – Foreground and Background Colour)

27.22.4.3.8.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.8.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2, clause 8.15.3 and clause 8.70.

27.22.4.3.8.10.3 Test purpose

To verify that the ME displays the text formatted according to the fore- and background colour text attribute configuration contained in the GET INPUT proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.3.8.10.4 Method of test

27.22.4.3.8.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.3.8.10.4.2 Procedure

Expected Sequence 8.10 (GET INPUT, Text attribute – Foreground and Background Colour)

See ETSI TS 102 384 [26] in clause 27.22.4.3.8.10.4.2, Expected Sequence 8.10.

27.22.4.3.8.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.10.

##### 27.22.4.3.9 GET INPUT (UCS2 display in Chinese)

27.22.4.3.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.9.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.9.3 Test purpose

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

27.22.4.3.9.4 Method of test

27.22.4.3.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.9.4.2 Procedure

Expected Sequence 9.1 (GET INPUT, text string coding in UCS2 - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.9.4.2, Expected Sequence 9.1.

Expected Sequence 9.2 (GET INPUT, max length for the text string coding in UCS2 - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.9.4.2, Expected Sequence 9.2.

27.22.4.3.9.5 Test requirement

The ME shall operate in the manner defined in expected sequences 9.1 to 9.2

##### 27.22.4.3.10 GET INPUT (UCS2 entry in Chinese)

27.22.4.3.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.10.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.10.3 Test purpose

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

27.22.4.3.10.4 Method of test

27.22.4.3.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.10.4.2 Procedure

Expected Sequence 10.1 (GET INPUT, character set from UCS2 alphabet - Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.10.4.2, Expected Sequence 10.1.

Expected Sequence 10.2 (GET INPUT, character set from UCS2 alphabet - Chinese characters, Max length for the input, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.10.4.2, Expected Sequence 10.2.

27.22.4.3.10.5 Test requirement

The ME shall operate in the manner defined in expected sequences 10.1 to 10.2

##### 27.22.4.3.11 GET INPUT (UCS2 display in Katakana)

27.22.4.3.11.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.11.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.11.3 Test purpose

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

27.22.4.3.11.4 Method of test

27.22.4.3.11.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.11.4.2 Procedure

Expected Sequence 11.1 (GET INPUT, text string coding in UCS2 in Katakana, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.11.4.2, Expected Sequence 11.1.

Expected Sequence 11.2 (GET INPUT, max length for the text string coding in UCS2 in Katakana, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.11.4.2, Expected Sequence 11.2.

27.22.4.3.11.5 Test requirement

The ME shall operate in the manner defined in expected sequences 11.1 to 11.2

##### 27.22.4.3.12 GET INPUT (UCS2 entry in Katakana)

27.22.4.3.12.1 Definition and applicability

See clause 3.2.2.

27.22.4.3.12.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.11, clause 8.15, clause 8.15.1, clause 8.15.2 and clause 8.15.3.

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

27.22.4.3.12.3 Test purpose

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

27.22.4.3.12.4 Method of test

27.22.4.3.12.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.3.12.4.2 Procedure

Expected Sequence 12.1 (GET INPUT, character set from UCS2 alphabet in Katakana, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.12.4.2, Expected Sequence 12.1.

Expected Sequence 12.2 (GET INPUT, character set from UCS2 alphabet in Katakana, Max length for the input, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.3.12.4.2, Expected Sequence 12.2.

27.22.4.3.12.5 Test requirement

The ME shall operate in the manner defined in expected sequences 12.1 to 12.2.

#### 27.22.4.4 MORE TIME

##### 27.22.4.4.1 Definition and applicability

See clause 3.2.2.

##### 27.22.4.4.2 Conformance requirement

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

- TS 31.111 [15] clause 6.4.4, clause 6.6.4, clause 5.2, clause 8.6 and clause 8.7.

##### 27.22.4.4.3 Test purpose

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

##### 27.22.4.4.4 Method of test

27.22.4.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.4.4.2 Procedure

Expected Sequence 1.1 (MORE TIME)

See ETSI TS 102 384 [26] in clause 27.22.4.4.4.2, Expected Sequence 1.1.

##### 27.22.4.4.5 Test requirement

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

#### 27.22.4.5 PLAY TONE

##### 27.22.4.5.1 PLAY TONE (Normal)

27.22.4.5.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.1.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16 and clause 8.8.

27.22.4.5.1.3 Test purpose

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

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

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

27.22.4.5.1.4 Method of test

27.22.4.5.1.4.1 Initial conditions

The ME is connected to the USIM Simulator and only connected to the USS if the USS is mentioned in the sequence table. The elementary files are coded as Toolkit default.

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

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

27.22.4.5.1.4.2 Procedure

Expected Sequence 1.1 (PLAY TONE)

| Step | Direction | MESSAGE / Action | Comments |
| --- | --- | --- | --- |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.1 |  |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.1 |  |
| 4 | ME → USER | Display "Dial Tone" Play a standard supervisory dial tone through the external ringer for a duration of 5 s |  |
| 5 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.1 | [Command performed successfully] |
| 6 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.2 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.2 |  |
| 10 | ME → USER | Display "Sub. Busy" Play a standard supervisory called subscriber busy tone for a duration of 5 s |  |
| 11 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.2 | [Command performed successfully] |
| 12 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 13 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.3 |  |
| 14 | ME → UICC | FETCH |  |
| 15 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.3 |  |
| 16 | ME → USER | Display "Congestion" Play a standard supervisory congestion tone for a duration of 5 s |  |
| 17 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.3 | [Command performed successfully] |
| 18 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 19 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.4 |  |
| 20 | ME → UICC | FETCH |  |
| 21 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.4 |  |
| 22 | ME → USER | Display "RP Ack" Play a standard supervisory radio path acknowledgement tone |  |
| 23 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.4 | [Command performed successfully] |
| 24 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 25 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.5 |  |
| 26 | ME → UICC | FETCH |  |
| 27 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.5 |  |
| 28 | ME → USER | Display "No RP" Play a standard supervisory radio path not available / call dropped tone for a duration of 5 s | [Note: The ME will only play three bursts as specified in TS 22.001 [2]] |
| 29 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.5 | [Command performed successfully] |
| 30 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 31 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.6 |  |
| 32 | ME → UICC | FETCH |  |
| 33 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.6 |  |
| 34 | ME → USER | Display "Spec Info" Play a standard supervisory error / special information tone for a duration of 5 s |  |
| 35 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.6 | [Command performed successfully] |
| 36 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 37 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.7 |  |
| 38 | ME → UICC | FETCH |  |
| 39 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.7 |  |
| 40 | ME → USER | Display "Call Wait" Play a standard supervisory call waiting tone for a duration of 5 s |  |
| 41 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.7 | [Command performed successfully] |
| 42 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 43 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.8 |  |
| 44 | ME → UICC | FETCH |  |
| 45 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.8 |  |
| 46 | ME → USER | Display "Ring Tone" Play a standard supervisory ringing tone for duration of 5 s |  |
| 47 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.8 | [Command performed successfully] |
| 48 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 49 | USER → ME | Set up a voice call | [ User dials 123456789 to connect to the network manually] |
| 50 | ME → USS | Establish voice call | [Voice call is established] |
| 51 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.1 |  |
| 52 | ME → UICC | FETCH |  |
| 53 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.1 |  |
| 54 | ME → USER | Display "Dial Tone" Superimpose the standard supervisory dial tone on the audio downlink for the duration of 5 s |  |
| 55 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.1 | [Command performed successfully] |
| 56 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 57 | USER → ME | The user ends the call |  |
| 58 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.9 |  |
| 59 | ME → UICC | FETCH |  |
| 60 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.9 |  |
| 61 | ME → USER | Display "This command instructs the ME to play an audio tone. Upon receiving this command, the ME shall check if it is currently in, or in the process of setting up (SET‑UP message sent to the network, see GSM"04.08"(8)), a speech call. - If the ME I" Play a general beep |  |
| 62 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.9a or TERMINAL RESPONSE: PLAY TONE 1.1.9b | [Command performed successfully] or [Command beyond ME's capabilities] |
| 63 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 64 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.10 |  |
| 65 | ME → UICC | FETCH |  |
| 66 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.10 |  |
| 67 | ME → USER | Display "Beep" Play a ME proprietary general beep |  |
| 68 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.10a Or TERMINAL RESPONSE: PLAY TONE 1.1.10b | [Command performed successfully] or [Command beyond ME's capabilities] |
| 69 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 70 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.11 |  |
| 71 | ME → UICC | FETCH |  |
| 72 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.11 |  |
| 73 | ME → USER | Display "Positive" Play a ME proprietary positive acknowledgement tone |  |
| 74 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.11a or TERMINAL RESPONSE: PLAY TONE 1.1.11b | [Command performed successfully] or [Command beyond ME's capabilities] |
| 75 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 76 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.12 |  |
| 77 | ME → UICC | FETCH |  |
| 78 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.12 |  |
| 79 | ME → USER | Display "Negative" Play a ME proprietary negative acknowledgement tone |  |
| 80 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.12a or TERMINAL RESPONSE: PLAY TONE 1.1.12b | [Command performed successfully] or [Command beyond ME's capabilities] |
| 81 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 82 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.13 |  |
| 83 | ME → UICC | FETCH |  |
| 84 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.13 |  |
| 85 | ME → USER | Display "Quick" Play a ME proprietary general beep |  |
| 86 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.13a or TERMINAL RESPONSE: PLAY TONE 1.1.13b | [Command performed successfully] or [Command beyond ME's capabilities] |
| 87 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 88 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.14 |  |
| 89 | ME → UICC | FETCH |  |
| 90 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.14 |  |
| 91 | ME → USER | Display "<ABORT>" Play an ME Error / Special information tone until user aborts this command (the command shall be aborted by the user within 1 minute) |  |
| 92 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.14 | [Proactive UICC session terminated by the user] |
| 93 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 94 | UICC → ME | PROACTIVE COMMAND PENDING: PLAY TONE 1.1.15 |  |
| 95 | ME → UICC | FETCH |  |
| 96 | UICC → ME | PROACTIVE COMMAND: PLAY TONE 1.1.15 | [No alpha identifier, no tone tag, no duration tag] |
| 97 | ME → User | ME plays general beep, or if not supported any (defined by ME-manufacturer) other supported tone | [ME uses default duration defined by ME‑manufacturer] |
| 98 | ME → UICC | TERMINAL RESPONSE: PLAY TONE 1.1.15 | [Command performed successfully], [ME uses general beep, or if not supported any (defined by ME-manufacturer) other supported tone, uses default duration defined by ME‑manufacturer] |
| 99 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |

For coding, see ETSI TS 102 384 [26] in clause 27.22.4.5.1.4.2, Expected Sequence 1.1.

27.22.4.5.1.5 Test requirement

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

##### 27.22.4.5.2 PLAY TONE (UCS2 display in Cyrillic)

27.22.4.5.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.2.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.16 and clause 8.8.

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

27.22.4.5.2.3 Test purpose

To verify that the ME displays the text contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME plays the requested audio tone through the earpiece.

27.22.4.5.2.4 Method of test

27.22.4.5.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.2.4.2 Procedure

Expected Sequence 2.1 (PLAY TONE, character set from UCS2 alphabet in Russian, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.2.4.2, Expected Sequence 2.1.

27.22.4.5.2.5 Test requirement

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

##### 27.22.4.5.3 PLAY TONE (display of Icon)

27.22.4.5.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.3.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8 and clause 8.31.

27.22.4.5.3.3 Test purpose

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

To verify that the ME plays the requested audio tone through the earpiece.

To verify that the ME displays the icon contained in the PLAY TONE proactive UICC command.

27.22.4.5.3.4 Method of test

27.22.4.5.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.3.4.2 Procedure

Expected Sequence 3.1A (PLAY TONE, Basic icon, self-explanatory, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.1A.

Expected Sequence 3.1B (PLAY TONE, Basic icon, self-explanatory, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.1B.

Expected Sequence 3.2A (PLAY TONE, Basic icon, non self-explanatory, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.2A.

Expected Sequence 3.2B (PLAY TONE, Basic icon, non self-explanatory, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.2B.

Expected Sequence 3.3A (PLAY TONE, Colour icon, self-explanatory, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.3A.

Expected Sequence 3.3B (PLAY TONE, Colour icon, self-explanatory, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.3B.

Expected Sequence 3.4A (PLAY TONE, Colour icon, non self-explanatory, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.4A.

Expected Sequence 3.4B (PLAY TONE, Colour icon, non self-explanatory, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.5.3.4.2, Expected Sequence 3.4B.

27.22.4.5.3.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 3.1A to 3.4B.

##### 27.22.4.5.4 PLAY TONE (Support of Text Attribute)

27.22.4.5.4.1 PLAY TONE (Support of Text Attribute – Left Alignment)

27.22.4.5.4.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.1.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.1.3 Test purpose

To verify that the ME displays the text formatted according to the left alignment text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.1.4 Method of test

27.22.4.5.4.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.1.4.2 Procedure

Expected Sequence 4.1 (PLAY TONE, Text Attribute – Left Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.1.4.2, Expected Sequence 4.1.

27.22.4.5.4.1.5 Test Requirement

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

27.22.4.5.4.2 PLAY TONE (Support of Text Attribute – Center Alignment)

27.22.4.5.4.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.2.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.2.3 Test purpose

To verify that the ME displays the text formatted according to the center alignment text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.2.4 Method of test

27.22.4.5.4.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.2.4.2 Procedure

Expected Sequence 4.2 (PLAY TONE, Text Attribute – Centre Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.2.4.2, Expected Sequence 4.2.

27.22.4.5.4.2.5 Test Requirement

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

27.22.4.5.4.3 PLAY TONE (Support of Text Attribute – Right Alignment)

27.22.4.5.4.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.3.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.3.3 Test purpose

To verify that the ME displays the text formatted according to the right alignment text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.3.4 Method of test

27.22.4.5.4.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.3.4.2 Procedure

Expected Sequence 4.3 (PLAY TONE, Text Attribute – Right Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.3.4.2, Expected Sequence 4.3.

27.22.4.5.4.3.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.3.

27.22.4.5.4.4 PLAY TONE (Support of Text Attribute – Large Font Size)

27.22.4.5.4.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.4.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.4.3 Test purpose

To verify that the ME displays the text formatted according to the large font size text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.4.4 Method of test

27.22.4.5.4.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.4.4.2 Procedure

Expected Sequence 4.4 (PLAY TONE, Text Attribute – Large Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.4.4.2, Expected Sequence 4.4.

27.22.4.5.4.4.5 Test Requirement

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

27.22.4.5.4.5 PLAY TONE (Support of Text Attribute – Small Font Size)

27.22.4.5.4.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.5.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.5.3 Test purpose

To verify that the ME displays the text formatted according to the small font size text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.5.4 Method of test

27.22.4.5.4.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.5.4.2 Procedure

Expected Sequence 4.5 (PLAY TONE, Text Attribute – Small Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.5.4.2, Expected Sequence 4.5.

27.22.4.5.4.5.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.5.

27.22.4.5.4.6 PLAY TONE (Support of Text Attribute – Bold On)

27.22.4.5.4.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.6.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.6.3 Test purpose

To verify that the ME displays the text formatted according to the bold text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.6.4 Method of test

27.22.4.5.4.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.6.4.2 Procedure

Expected Sequence 4.6 (PLAY TONE, Text Attribute – Bold On)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.6.4.2, Expected Sequence 4.6.

27.22.4.5.4.6.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.6.

27.22.4.5.4.7 PLAY TONE (Support of Text Attribute – Italic On)

27.22.4.5.4.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.7.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.7.3 Test purpose

To verify that the ME displays the text formatted according to the italic text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.7.4 Method of test

27.22.4.5.4.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.7.4.2 Procedure

Expected Sequence 4.7 (PLAY TONE, Text Attribute – Italic On)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.7.4.2, Expected Sequence 4.7.

27.22.4.5.4.7.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.7.

27.22.4.5.4.8 PLAY TONE (Support of Text Attribute – Underline On)

27.22.4.5.4.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.8.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.8.3 Test purpose

To verify that the ME displays the text formatted according to the underline text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.8.4 Method of test

27.22.4.5.4.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.8.4.2 Procedure

Expected Sequence 4.8 (PLAY TONE, Text Attribute – Underline On)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.8.4.2, Expected Sequence 4.8.

27.22.4.5.4.8.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.8.

27.22.4.5.4.9 PLAY TONE (Support of Text Attribute – Strikethrough On)

27.22.4.5.4.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.9.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.9.3 Test purpose

To verify that the ME displays the text formatted according to the strikethrough text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.9.4 Method of test

27.22.4.5.4.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.9.4.2 Procedure

Expected Sequence 4.9 (PLAY TONE, Text Attribute – Strikethrough On)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.9.4.2, Expected Sequence 4.9.

27.22.4.5.4.9.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.9.

27.22.4.5.4.10 PLAY TONE (Support of Text Attribute – Foreground and Background Colour)

27.22.4.5.4.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.4.10.2 Conformance requirement

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

- TS 31.111 [15] clause 6.1, clause 6.4.5, clause 6.6.5, clause 5.2, clause 8.6, clause 8.7, clause 8.2, clause 8.16, clause 8.8, clause 8.31 and clause 8.70.

27.22.4.5.4.10.3 Test purpose

To verify that the ME displays the text formatted according to the foreground and background colour text attribute configuration contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.5.4.10.4 Method of test

27.22.4.5.4.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.4.10.4.2 Procedure

Expected Sequence 4.10 (PLAY TONE, Text Attribute – Foreground and Background Colour)

See ETSI TS 102 384 [26] in clause 27.22.4.5.4.10.4.2, Expected Sequence 4.10.

27.22.4.5.4.10.5 Test Requirement

The ME shall operate in the manner defined in expected sequences 4.10.

##### 27.22.4.5.5 PLAY TONE (UCS2 display in Chinese)

27.22.4.5.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.5.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.16 and clause 8.8.

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

27.22.4.5.5.3 Test purpose

To verify that the ME displays the text contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME plays the requested audio tone through the earpiece.

27.22.4.5.5.4 Method of test

27.22.4.5.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.5.4.2 Procedure

Expected Sequence 5.1 (PLAY TONE, character set from UCS2 alphabet in Chinese, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.5.4.2, Expected Sequence 5.1.

27.22.4.5.5.5 Test requirement

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

##### 27.22.4.5.6 PLAY TONE (UCS2 display in Katakana)

27.22.4.5.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.5.6.2 Conformance requirement

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

- TS 31.111 [15] clause 5.2, clause 6.4.3, clause 6.6.3, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.16 and clause 8.8.

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

27.22.4.5.6.3 Test purpose

To verify that the ME displays the text contained in the PLAY TONE proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME plays the requested audio tone through the earpiece.

27.22.4.5.6.4 Method of test

27.22.4.5.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

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

27.22.4.5.6.4.2 Procedure

Expected Sequence 6.1 (PLAY TONE, with UCS2 in Katakana, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.5.6.4.2, Expected Sequence 6.1.

27.22.4.5.6.5 Test requirement

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

#### 27.22.4.6 POLL INTERVAL

##### 27.22.4.6.1 Definition and applicability

See clause 3.2.2.

##### 27.22.4.6.2 Conformance requirement

The ME shall support the POLL INTERVAL command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.6, clause 6.6.6, clause 5.2, clause 8.6, clause 8.7 and clause 8.8.

##### 27.22.4.6.3 Test purpose

To verify that the ME shall send a TERMINAL RESPONSE (OK) to the UICC after the ME receives the POLL INTERVAL proactive UICC command.

To verify that the ME gives a valid response to the polling interval requested by the UICC.

To verify that the ME sends STATUS commands to the UICC at an interval no longer than the interval negotiated by the UICC.

##### 27.22.4.6.4 Method of test

27.22.4.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

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

27.22.4.6.4.2 Procedure

See ETSI TS 102 384 [26] in clause 27.22.4.6.4.2, Expected Sequence 1.1.

Note: If the requested poll interval is not supported by the ME, the ME is allowed to use a different one as stated in TS 31.111 [15], clause 6.4.6.

##### 27.22.4.6.5 Test requirement

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

#### 27.22.4.7 REFRESH

##### 27.22.4.7.1 REFRESH (normal)

27.22.4.7.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.1.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7 and clause 8.18.

Consequently the ME shall support the USIM Initialization procedure as defined in:

- TS 31.102 [14] clause 5.1.1.2 and ETSI TS 102 221[13] clause 11.1.2

27.22.4.7.1.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier. This shall require the ME to perform:

- the UICC and USIM initialization,

- a re-read of the contents and structure of the EFs on the UICC that have been notified as changed and are either part of initialization or used during the test,

- a restart of the card session,

- a successfull return of the result of the execution of the command in the TERMINAL RESPONSE command send to the UICC.

27.22.4.7.1.4 Method of test

27.22.4.7.1.4.1 Initial conditions

The ME is connected to the USIM Simulator and only connected to the USS if the USS is mentioned in the sequence table..

The elementary files are coded as Toolkit default except for expected sequence 1.3.

For expected sequence 1.3 the global phonebook shall be present.

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

These values might be overwritten with values defined in the expected sequences itself.

Prior to the execution of expected sequence 1.2 the FDN service shall be enabled.

27.22.4.7.1.4.2 Procedure

Expected Sequence 1.1 (REFRESH, USIM Initialization)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 1.1.1 | [To inform the ME that FDN becomes enabled] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.1.1 |  |
| 4 | UICC | EF EST contents states FDN enabled | [New EF EST value: 01] |
| 5 | ME → UICC | USIM Initialization including send STATUS[P1='01'] | [ME performs USIM initialization in accordance with TS 31.111 [15] clause 6.4.7] |
| 6 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.1.1A Or TERMINAL RESPONSE: REFRESH 1.1.1B | [normal ending]  [additional EFs read] |
| 7 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 8 | USER → ME | Call setup to "321" |  |
| 9 | ME → USER | Call set up not allowed |  |
| 10 | USER → ME | Call setup to "123" |  |
| 11 | ME → USS | Setup | Called party BCD number shall be "123" |

PROACTIVE COMMAND: REFRESH 1.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization

Device identities

Source device: UICC

Destination device: ME

Coding:

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

TERMINAL RESPONSE: REFRESH 1.1.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

TERMINAL RESPONSE: REFRESH 1.1.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

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

Expected Sequence 1.2 (REFRESH, File Change Notification)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 1.2.1 | [To inform the ME that EF FDN will be in an updated state, FDN service already enabled] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.2.1 |  |
| 4 | UICC | Update EF FDN RECORD 1 | [EF FDN record 1 updated to contain the dialling string "0123456789"] |
| 5 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.2.1A Or TERMINAL RESPONSE: REFRESH 1.2.1B | [normal ending]  [additional EFs read] |
| 6 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 7 | USER → ME | Call setup to "123" |  |
| 8 | ME → USER | Call set up not allowed |  |
| 9 | USER → ME | Call setup to "0123456789" |  |
| 10 | ME → USS | Setup | Called party BCD number shall be "0123456789" |

PROACTIVE COMMAND: REFRESH 1.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: File Change Notification

Device identities

Source device: UICC

Destination device: ME

File List: EF FDN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 12 | 81 | 03 | 01 | 01 | 01 | 82 | 02 | 81 | 82 | 92 |
|  | 07 | 01 | 3F | 00 | 7F | FF | 6F | 3B |  |  |  |  |

TERMINAL RESPONSE: REFRESH 1.2.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: File Change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

TERMINAL RESPONSE: REFRESH 1.2.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: File Change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

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

Expected Sequence 1.3 (REFRESH, USIM Initialization and File Change Notification)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 1.3.1 |  |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.3.1 |  |
| 4 | UICC | Update EF ADN in the global phonebook | [EF ADN entry 1 of the global phonebook to contain the the new and previously unused alpha identifier "Changed" |
| 5 | ME → UICC | USIM Initialization including sending STATUS [P1='01'] | [ME performs USIM initialization in accordance with TS 31.111 [15] clause 6.4.7] |
| 6 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.3.1A Or TERMINAL RESPONSE: REFRESH 1.3.1B | [normal ending]  [additional EFs read] |
| 7 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 8 | USER → ME | Use an MMI dependent procedure to display the entry with the alpha identifier "Changed" stored in record 1 of EF ADN in the global phonebook | [To ensure that EF ADN in the global phonebook has been read after issuing the Refresh command] |
| 9 | ME → USER | The ME shall display the alpha identifier "Changed" for record 1 of EF ADN in the global phonebook |  |

PROACTIVE COMMAND: REFRESH 1.3.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and File Change Notification

Device identities

Source device: UICC

Destination device: ME

File List: ADN in the global phonebook

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 12 | 81 | 03 | 01 | 01 | 02 | 82 | 02 | 81 | 82 | 92 |
|  | Note 1 |  |  |  |  |  |  |  |  |  |  |  |

Note 1: Length and data of the file list TLV depend on the card configuration used in this test. The global phonebook shall be used. The number of changed files shall be set to '01'.

TERMINAL RESPONSE: REFRESH 1.3.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and File Change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

TERMINAL RESPONSE: REFRESH 1.3.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and File Change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

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

Expected Sequence 1.4 (REFRESH, USIM Initialization and Full File Change Notification)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 1.4.1 |  |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.4.1 |  |
| 4 | UICC | EF EST contents states FDN enabled | [New EF EST value: 01] |
| 5 | UICC | Update EF FDN | [EF FDN record 1 updated to contain the dialling string "0123456789"] |
| 6 | ME → UICC | USIM Initialization including send STATUS[P1='01'] | [ME performs USIM initialization in accordance with TS 31.111 [15] clause 6.4.7] |
| 7 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.4.1A Or TERMINAL RESPONSE: REFRESH 1.4.1B | [normal ending]  [additional EFs read] |
| 8 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 9 | USER → ME | Call setup to "321" |  |
| 10 | ME → USER | Call set up not allowed |  |
| 11 | USER → ME | Call setup to "0123456789" |  |
| 12 | ME → USS | Setup | Called party BCD number shall be "0123456789" |

PROACTIVE COMMAND: REFRESH 1.4.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and Full File Change Notification

Device identities

Source device: UICC

Destination device: ME

Coding:

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

TERMINAL RESPONSE: REFRESH 1.4.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and Full file Change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

TERMINAL RESPONSE: REFRESH 1.4.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Initialization and full File change Notification

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

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

Expected Sequence 1.5 (REFRESH, UICC Reset)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 1.5.1 |  |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.5.1 |  |
| 4 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 5 | ME → UICC | ME resets the UICC, performs USIM initialisation, including send STATUS[P1='01'] and no TERMINAL RESPONSE shall be sent |  |

PROACTIVE COMMAND: REFRESH 1.5.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC Reset

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |  |

Expected Sequence 1.6 (REFRESH, USIM Initialization after SMS-PP data download)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | ME | The ME shall be in its normal idle mode | [Start a sequence to verify that the ME returns the RP-ACK message back to the USS, if the UICC responds with '90 00'] |
| 2 | USS → ME | SMS-PP Data Download Message 1.6.1 |  |
| 3 | ME → USER | The ME shall not display the message or alert the user of a short message waiting |  |
| 4 | ME → UICC | ENVELOPE: SMS-PP DOWNLOAD 1.6.1 |  |
| 5 | UICC → ME | SW1/SW2 of '90 00' |  |
| 6 | ME  USS | RP-ACK |  |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 1.1.1 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.1.1 |  |
| 10 | UICC | EF EST contents states FDN enabled | [New EF EST value: 01] |
| 11 | ME → UICC | USIM Initialization including send STATUS[P1='01'] | [ME performs USIM initialization in accordance with TS 31.111 [15] clause 6.4.7] |
| 12 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.1.1A Or TERMINAL RESPONSE: REFRESH 1.1.1B | [normal ending]  [additional EFs read] |
| 13 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 14 | USER → ME | Call setup to "321" |  |
| 15 | ME → USER | Call set up not allowed |  |
| 16 | USER → ME | Call setup to "123" |  |
| 17 | ME → USS | Setup | Called party BCD number shall be "123" |

SMS-PP (Data Download) Message 1.6.1

Logically:

SMS TPDU

TP-MTI SMS-DELIVER

TP-MMS No more messages waiting for the MS in this SC

TP-RP TP-Reply-Path is not set in this SMS-DELIVER

TP-UDHI TP-UD field contains only the short message

TP-SRI A status report will not be returned to the SME

TP-OA

TON International number

NPI "ISDN / telephone numbering plan"

Address value "1234"

TP-PID (U)SIM Data download

TP-DCS

Coding Group General Data Coding

Compression Text is uncompressed

Message Class Class 2 (U)SIM Specific Message

Alphabet 8 bit data

TP-SCTS: 01/01/98 00:00:00 +0

TP-UDL 13

TP-UD "Short Message"

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding | 04 | 04 | 91 | 21 | 43 | 7F | 16 | 89 | 10 | 10 | 00 | 00 |
|  | 00 | 00 | 0D | 53 | 68 | 6F | 72 | 74 | 20 | 4D | 65 | 73 |
|  | 73 | 61 | 67 | 65 |  |  |  |  |  |  |  |  |

ENVELOPE: SMS-PP DOWNLOAD 1.6.1

Logically:

SMS-PP Download

Device identities

Source device: Network

Destination device: UICC

Address

TON International number

NPI "ISDN / telephone numbering plan"

Dialling number string "112233445566778"

SMS TPDU

TP-MTI SMS-DELIVER

TP-MMS No more messages waiting for the MS in this SC

TP-RP TP-Reply-Path is not set in this SMS-DELIVER

TP-UDHI TP-UD field contains only the short message

TP-SRI A status report will not be returned to the SME

TP-OA

TON International number

NPI "ISDN / telephone numbering plan"

Address value "1234"

TP-PID (U)SIM Data download

TP-DCS

Coding Group General Data Coding

Compression Text is uncompressed

Message Class Class 2 (U)SIM Specific Message

Alphabet 8 bit data

TP-SCTS: 01/01/98 00:00:00 +0

TP-UDL 13

TP-UD "Short Message"

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D1 | 2D | 82 | 02 | 83 | 81 | 06 | 09 | 91 | 11 | 22 | 33 |
|  | 44 | 55 | 66 | 77 | F8 | 8B | 1C | 04 | 04 | 91 | 21 | 43 |
|  | 7F | 16 | 89 | 10 | 10 | 00 | 00 | 00 | 00 | 0D | 53 | 68 |
|  | 6F | 72 | 74 | 20 | 4D | 65 | 73 | 73 | 61 | 67 | 65 |  |

Expected Sequence 1.7 (REFRESH, USIM Application Reset)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 1.7.1 | [To inform the ME that FDN becomes enabled] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 1.7.1 | No UICC reset shall be performed between steps 3 and 9. |
| 4 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 5 | ME → UICC | Select AID=USIM  (P2='44') OR (P2='4C') | Application termination |
| 6 | UICC | EF EST contents states FDN enabled | [New EF EST value: 01] |
| 7 | ME → UICC | USIM Initialization, including send STATUS[P1='01'] | [ME performs USIM initialization] |
| 8 | ME → UICC | TERMINAL RESPONSE: REFRESH 1.7.1 | [normal ending] |
| 9 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 10 | USER → ME | Call setup to "321" |  |
| 11 | ME → USER | Call set up not allowed |  |
| 12 | USER → ME | Call setup to "123" |  |
| 13 | ME → USS | Setup | Called party BCD number shall be "123" |
| 14 | USS → ME | The ME receives the CONNECT message from the USS. |  |
| 15 | USER → ME | The user ends the call after a few seconds. |  |

PROACTIVE COMMAND: REFRESH 1.7.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Application Reset

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 05 | 82 | 02 | 81 | 82 |  |

TERMINAL RESPONSE: REFRESH 1.7.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Application Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 05 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

27.22.4.7.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 to 1.7.

##### 27.22.4.7.2 REFRESH (IMSI changing procedure)

27.22.4.7.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.2.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6.4.7.1, clause 6, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7 and clause 8.18.

Additionally the ME shall support the USIM Initialization and USIM application closure procedure as defined in:

- TS 31.102 [14] clause 5.1.2 and Annex I.

27.22.4.7.2.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier and the IMSI changing procedure. This may require the ME to perform:

- the USIM initialization

- a re-read of the contents and structure of the IMSI on the USIM

- a restart of the card session

- a successful return of the result of the execution of the command in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.7.2.4 Method of test

27.22.4.7.2.4.1 Initial conditions

The ME is connected to the USIM Simulator and connected to the USS and registered in idle mode.

The USS uses Network Mode of Operation II according to TS 34.108 [12] clause 7.2.2.

The GERAN or UTRAN parameters of the USS are:

- Mobile Country Code (MCC) = 246;

- Mobile Network Code (MNC) = 81;

- Location Area Code (LAC) = 0001;

- Routing Area Code (RAC) = 05;

The elementary files are coded as USIM Application Toolkit default.

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

The ATT flag broadcast in the SYSTEM INFORMATION BLOCK TYPE 1 on the BCCH is set to "UEs shall apply IMSI attach and detach procedure" for Expected Sequences 2.1 to 2.7.

27.22.4.7.2.4.2 Procedure

Expected Sequence 2.1 (REFRESH, UICC Reset for IMSI Changing procedure)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 2.1.1 | [To inform the ME that IMSI has changed] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.1.1 |  |
| 4 | ME → USS | IMSI DETACH INDICATION and/or DETACH REQUEST | Indicates IMSI detach and/or GPRS detach, depending on if the ME is CS and/or PS registered according to its capabilities  Note: this step can be performed in parallel or after step 5. |
| 5 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 6 | ME → UICC | ME performs UICC reset | Both cold and warm resets are allowed |
| 7 | UICC | Update EF IMSI, EF LOCI and EF PSLOCI | Update the content of EF IMSI to "246813579", TMSI in EF LOCI and P-TMSI in EF PSLOCI be set to 'FF FF FF FF' |
| 8 | ME → UICC | ME performs USIM Initialization, including send STATUS[P1='01'] and no TERMINAL RESPONSE shall be sent |  |
| 9 | ME → USS | LOCATION UPDATING REQUEST and/or ATTACH REQUEST | The ME will register using IMSI "246813579" in CS and/or PS depending on its capabilities |
| 10 | USS → ME | LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT |  |
| 11 | ME → USS | TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 2.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |

Expected Sequence 2.2 (REFRESH, USIM Application Reset for IMSI Changing procedure )

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 2.2.1 | [To inform the ME that IMSI has changed] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.2.1 |  |
| 4 | ME🡪USS | IMSI DETACH INDICATION and/or DETACH REQUEST | Indicates IMSI detach and/or GPRS detach, depending on if the ME is CS and/or PS registered according to its capabilities (performed in parallel or after step 5 and 6) |
| 5 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 6 | ME → UICC |  | Application termination |
| 7 | UICC | Update EF IMSI, EF LOCI and EF PSLOCI | The 3G session termination procedure has been completed by the ME. The content of EF IMSI has been updated to "246813579" and TMSI in EF LOCI and P-TMSI in EF PSLOCI are updated to 'FF FF FF FF' |
| 8 | ME → UICC | SELECT AID=USIM  (P2='0x') | Application selection |
| 9 | ME → UICC | USIM Initialization, including send STATUS[P1='01'] | [ME performs USIM initialization] |
| 10 | ME → UICC | TERMINAL RESPONSE: REFRESH 2.2.1 | [normal ending] |
| 11 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 12 | ME  USS | LOCATION UPDATING REQUEST and/or ATTACH REQUEST | The ME will register using IMSI "246813579" in CS and/or PS depending on its capabilities |
| 13 | USS  ME | LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT |  |
| 14 | ME  USS | TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 2.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Application Reset

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 05 | 82 | 02 | 81 | 82 |

TERMINAL RESPONSE: REFRESH 2.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM Application Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 05 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

Expected Sequence 2.3 (REFRESH, 3G Session Reset for IMSI Changing procedure)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 2.3.1 | [To inform the ME that IMSI has changed] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.3.1 |  |
| 4 | ME→USS | IMSI DETACH INDICATION and/or DETACH REQUEST | Indicates IMSI detach and/or GPRS detach, depending on if the ME is CS and/or PS registered according to its capabilities  Note: this step can be performed in parallel or after step 5. |
| 5 | ME → UICC | STATUS[P1='02'] | If A.1/172 is supported, then the ME indicates to USIM that the termination procedure is starting,. completes the 3G session termination procedure and resets the application via SELECT by DF name command with the AID.  The ME performs the USIM initialization. |
| 6 | UICC | Update EF IMSI, EF LOCI and EF PSLOCI | The content of EF IMSI has been updated to "246813579" and TMSI in EF LOCI and P-TMSI in EF PSLOCI are updated to 'FF FF FF FF' |
| 7 | ME → UICC | TERMINAL RESPONSE: REFRESH 2.3.1A  Or  TERMINAL RESPONSE: REFRESH 2.3.1B | [normal ending] |
| 8 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 9 | ME→ USS | LOCATION UPDATING REQUEST and/or ATTACH REQUEST | The ME will register using IMSI "246813579" in CS and/or PS depending on its capabilities |
| 10 | USS → ME | LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT |  |
| 11 | ME → USS | TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 2.3.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 3

File: EF IMSI

File: EF PSLOCI

File: EF LOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1E | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 13 | 03 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | 73 | 3F | 00 | 7F | FF | 6F | 7E |  |  |  |  |

TERMINAL RESPONSE: REFRESH 2.3.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

TERMINAL RESPONSE: REFRESH 2.3.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 03 |

Expected Sequence 2.4 (REFRESH, reject 3G Session Reset for IMSI Changing procedure during CS call)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USER → ME | MO Call setup |  |
| 2 | ME → USS | Call established and maintained |  |
| 3 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 2.4.1 |  |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.4.1 |  |
| 6 | ME → UICC | TERMINAL RESPONSE: REFRESH 2.4.1A Or TERMINAL RESPONSE: REFRESH 2.4.1B | ME rejects REFRESH proactive command |
| 7 | UICC → ME | PROACTIVE UICC SESSION ENDED | Note: EF IMSI, EF LOCI and EF PSLOCI are not updated by the UICC, see TS 31.111[15], cl. 6.4.7.1 |
| 8 | USER → ME | The MO call is terminated |  |

PROACTIVE COMMAND: REFRESH 2.4.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 3

File: EF IMSI

File: EF PSLOCI

File: EF LOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1E | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 13 | 03 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | 73 | 3F | 00 | 7F | FF | 6F | 7E |  |  |  |  |

TERMINAL RESPONSE: REFRESH 2.4.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: ME currently unable to process command  
Additional information on result: ME currently busy on call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 02 | 20 |
|  | 02 |  |  |  |  |  |  |  |  |  |  |  |

TERMINAL RESPONSE: REFRESH 2.4.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: ME currently unable to process command  
Additional information on result: Screen is busy

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 02 | 20 |
|  | 01 |  |  |  |  |  |  |  |  |  |  |  |

Expected Sequence 2.5 (REFRESH, reject UICC Reset for IMSI Changing procedure during CS call)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USER → ME | CS MO Call setup |  |
| 2 | ME → USS | Call established and maintained |  |
| 3 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 2.5.1 |  |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.5.1 |  |
| 6 | ME → UICC | TERMINAL RESPONSE: REFRESH 2.5.1A Or TERMINAL RESPONSE: REFRESH 2.5.1B | ME rejects REFRESH proactive command |
| 7 | UICC → ME | PROACTIVE UICC SESSION ENDED | Note: EF IMSI, EF LOCI and EF PS LOCI are not updated by the UICC, see TS 31.111[15], cl. 6.4.7.1 |
| 8 | USER → ME | The CS MO call is terminated |  |

PROACTIVE COMMAND: REFRESH 2.5.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |  |

TERMINAL RESPONSE: REFRESH 2.5.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: ME

Destination device: UICC

Result

General Result: ME currently unable to process command  
Additional information on result: ME currently busy on call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 82 | 81 | 83 | 02 | 20 |
|  | 02 |  |  |  |  |  |  |  |  |  |  |  |

TERMINAL RESPONSE: REFRESH 2.5.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: ME

Destination device: UICC

Result

General Result: ME currently unable to process command  
Additional information on result: Screen is busy

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 82 | 81 | 83 | 02 | 20 |
|  | 01 |  |  |  |  |  |  |  |  |  |  |  |

Expected Sequence 2.6 (REFRESH, UICC Reset for IMSI Changing procedure during active PDP context)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USER→ ME | Data Call setup | PDP context will be established |
| 2 | ME →USS | PDP context established and maintained |  |
| 3 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH | [To inform the ME that IMSI has changed] |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.6.1 or 2.6.2 | IF terminal supports PD\_ Refresh\_Enforcement\_Policy use PROACTIVE COMMAND: REFRESH 2.6.2, ELSE 2.6.1. |
| 6 | ME→USS | Deactivate PDP context | Mobile will deactivate the PDP context  Note 1: this step is performed locally and may not reflect on the interface to the USS.  Note 2: this step can happen after step 8. |
| 7 | ME→USS | IMSI DETACH INDICATION and/or DETACH REQUEST | Indicates IMSI detach and/or GPRS detach, depending on if the ME is CS and/or PS registered according to its capabilities.  Note: this step can happen after step 8 |
| 8 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 9 | ME → UICC | ME performs UICC reset | Both cold and warm resets are allowed |
| 10 | UICC | Update EF IMSI, EF LOCI and EF PSLOCI | The content of EF IMSI has been updated to "246813579" and TMSI in EF LOCI and P-TMSI in EF PSLOCI are updated to 'FF FF FF FF' |
| 11 | ME → UICC | ME resets the UICC, perform USIM Initialization, including send STATUS[P1='01'] and no TERMINAL RESPONSE shall be sent | [ME resets and performs USIM initialization] |
| 12 | ME→ USS | LOCATION UPDATING REQUEST and/or ATTACH REQUEST | The ME will register using IMSI "246813579" in CS and/or PS depending on its capabilities |
| 13 | USS → ME | LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT |  |
| 14 | ME → USS | TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 2.6.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |

PROACTIVE COMMAND: REFRESH 2.6.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 0C | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 | 3A |
|  | 01 | 02 |

Expected Sequence 2.7 (REFRESH, 3G Session Reset for IMSI Changing procedure during active PDP context)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USER → ME | Data Call setup | PDP context will be established |
| 2 | ME → USS | PDP context establishedand maintained |  |
| 3 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH | [To inform the ME that IMSI has changed] |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 2.7.1 or 2.7.2 | IF terminal supports PD\_ Refresh\_Enforcement\_Policy use  PROACTIVE COMMAND: REFRESH 2.7.2, ELSE 2.7.1. |
| 6 | ME→USS | Deactivate PDP context | Mobile will deactivate the PDP context  Note: this step can be performed in parallel or after step 8. |
| 7 | ME→USS | IMSI DETACH INDICATION and/or DETACH REQUEST | Indicates IMSI detach and/or GPRS detach, depending on if the ME is CS and/or PS registered according to its capabilities Note 1: this step is performed locally and may not reflect on the interface to the USS.  Note 2: this step can be performed in parallel or after step 8. |
| 8 | ME → UICC | STATUS[P1='02'] | If A.1/172 is supported, then the ME indicates to USIM that the termination procedure is starting, completes the 3G session termination procedure and resets the application via SELECT by DF name command with the AID.  The ME performs the USIM initialization. |
| 9 | UICC | Update EF IMSI, EF LOCI and EF PSLOCI | The content of EF IMSI has been updated to "246813579" and TMSI in EF LOCI and P-TMSI in EF PSLOCI are updated to 'FF FF FF FF' |
| 10 | ME → UICC | TERMINAL RESPONSE: REFRESH 2.7.1A  Or  TERMINAL RESPONSE: REFRESH 2.7.1B | [normal ending] |
| 11 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 12 | ME→ USS | LOCATION UPDATING REQUEST and/or ATTACH REQUEST | The ME will register using IMSI "246813579" in CS and/or PS depending on its capabilities |
| 13 | USS → ME | LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT |  |
| 14 | ME → USS | TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 2.7.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 3

File: EF IMSI

File: EF PSLOCI

File: EF LOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1E | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 13 | 03 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | 73 | 3F | 00 | 7F | FF | 6F | 7E |  |  |  |  |

PROACTIVE COMMAND: REFRESH 2.7.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 3

File: EF IMSI

File: EF PSLOCI

File: EF LOCI

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 21 | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 13 | 03 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | 73 | 3F | 00 | 7F | FF | 6F | 7E | 3A | 01 | 02 |  |

TERMINAL RESPONSE: REFRESH 2.7.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

TERMINAL RESPONSE: REFRESH 2.7.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 03 |

27.22.4.7.2.5 Test requirement

The ME shall operate in the manner defined in expected sequences 2.1 to 2.7.

##### 27.22.4.7.3 REFRESH (Steering of roaming)

27.22.4.7.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.3.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 5.2, clause 6.1, clause 6.4.7, clause 6.6.13, clause 7.5.4, clause 8.2, clause 8.6, clause 8.7 and clause 8.90.

Consequently the Rel-7 or later ME shall support the steering of roaming procedure as defined in:

- TS 23.122 [29] clause 4.4.6.

27.22.4.7.3.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier. This shall require the ME to perform:

- the steering of roaming procedure,

- a successfull return of the result of the execution of the command in the TERMINAL RESPONSE command send to the UICC.

27.22.4.7.3.4 Method of test

27.22.4.7.3.4.1 Initial conditions

For sequences 3.1 and 3.2 the ME is connected to the USIM Simulator and connected to the USS/SS.

For sequence 3.3 the ME supporting E-UTRAN/NB-IoT is connected to the USIM Simulator and connected to the E-USS/NB-SS.

For sequence 3.4 the ME supporting NG-RAN is connected to the USIM Simulator and connected to the NG-SS.

For sequences 3.1 and 3.2:

The elementary files are coded as Toolkit default with the following exceptions:

EFFPLMN

Logically: PLMN1: 254 002 (MCC MNC)

PLMN2: 254 003

PLMN3: 254 004

PLMN4: 234 004

PLMN5: 234 005

PLMN6: 234 006

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 |
| Hex | 52 | 24 | 00 | 52 | 34 | 00 | 52 | 44 | 00 | 32 | 44 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | B13 | B14 | B15 | B16 | B17 | B18 |  |  |  |  |  |  |
|  | 32 | 54 | 00 | 32 | 64 | 00 |  |  |  |  |  |  |

EFOPLMNwACT

Logically: 1st PLMN: 254 001 (MCC MNC)

1st ACT: UTRAN

2nd PLMN: 254 001

2nd ACT: GSM

3rd PLMN: 274 002

3rd ACT: UTRAN

4th PLMN: 274 003

4th ACT: UTRAN

5th PLMN: 274 004

5th ACT: UTRAN

6th PLMN: 274 005

6th ACT: UTRAN

7th PLMN: 274 006

7th ACT: UTRAN

8th PLMN: 274 007

8th ACT: UTRAN

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Hex | 52 | 14 | 00 | 80 | 00 | 52 | 14 | 00 | 00 | 80 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** | **B18** | **B19** | **B20** |
|  | 72 | 24 | 00 | 80 | 00 | 72 | 34 | 00 | 80 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B21** | **B22** | **B23** | **B24** | **B25** | **B26** | **B27** | **B28** | **B29** | **B30** |
|  | 72 | 44 | 00 | 80 | 00 | 72 | 54 | 00 | 80 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B31** | **B32** | **B33** | **B34** | **B35** | **B36** | **B37** | **B38** | **B39** | **B40** |
|  | 72 | 64 | 00 | 80 | 00 | 72 | 74 | 00 | 80 | 00 |

For sequence 3.3:

The default E-UTRAN UICC, the default E-USS/NB-SS parameters and the following parameters are used:

EFFPLMN

Logically: PLMN1: 254 002 (MCC MNC)

PLMN2: 254 003

PLMN3: 254 004

PLMN4: 234 004

PLMN5: 234 005

PLMN6: 234 006

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** |
| Hex | 52 | 24 | 00 | 52 | 34 | 00 | 52 | 44 | 00 | 32 | 44 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **B13** | **B14** | **B15** | **B16** | **B17** | **B18** |  |  |  |  |  |  |
|  | 32 | 54 | 00 | 32 | 64 | 00 |  |  |  |  |  |  |

EFOPLMNwACT

Logically: 1st PLMN: 254 001 (MCC MNC)

1st ACT: E-UTRAN, UTRAN

2nd PLMN: 254 001

2nd ACT: GSM

3rd PLMN: 274 002

3rd ACT: E-UTRAN

4th PLMN: 274 003

4th ACT: E-UTRAN

5th PLMN: 274 004

5th ACT: E-UTRAN

6th PLMN: 274 005

6th ACT: E-UTRAN

7th PLMN: 274 006

7th ACT: E-UTRAN

8th PLMN: 274 007

8th ACT: UTRAN

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Hex | 52 | 14 | 00 | C0 | 00 | 52 | 14 | 00 | 00 | 80 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** | **B18** | **B19** | **B20** |
|  | 72 | 24 | 00 | 40 | 00 | 72 | 34 | 00 | 40 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B21** | **B22** | **B23** | **B24** | **B25** | **B26** | **B27** | **B28** | **B29** | **B30** |
|  | 72 | 44 | 00 | 40 | 00 | 72 | 54 | 00 | 40 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B31** | **B32** | **B33** | **B34** | **B35** | **B36** | **B37** | **B38** | **B39** | **B40** |
|  | 72 | 64 | 00 | 40 | 00 | 72 | 74 | 00 | 80 | 00 |

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

For sequence 3.4:

The default NG-RAN UICC, the default NG-SS parameters and the following parameters are used:

EFFPLMN

Logically: PLMN1: 254 002 (MCC MNC)

PLMN2: 254 003

PLMN3: 254 004

PLMN4: 234 004

PLMN5: 234 005

PLMN6: 234 006

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** |
| Hex | 52 | 24 | 00 | 52 | 34 | 00 | 52 | 44 | 00 | 32 | 44 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **B13** | **B14** | **B15** | **B16** | **B17** | **B18** |  |  |  |  |  |  |
|  | 32 | 54 | 00 | 32 | 64 | 00 |  |  |  |  |  |  |

EFOPLMNwACT

Logically: 1st PLMN: 254 001 (MCC MNC)

1st ACT: NG-RAN

2nd PLMN: 254 001

2nd ACT: GSM

3rd PLMN: 274 002

3rd ACT: E-UTRAN

4th PLMN: 274 003

4th ACT: E-UTRAN

5th PLMN: 274 004

5th ACT: E-UTRAN

6th PLMN: 274 005

6th ACT: E-UTRAN

7th PLMN: 274 006

7th ACT: E-UTRAN

8th PLMN: 274 007

8th ACT: UTRAN

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B01** | **B02** | **B03** | **B04** | **B05** | **B06** | **B07** | **B08** | **B09** | **B10** |
| Hex | 52 | 14 | 00 | 08 | 00 | 52 | 14 | 00 | 00 | 80 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** | **B18** | **B19** | **B20** |
|  | 72 | 24 | 00 | 40 | 00 | 72 | 34 | 00 | 40 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B21** | **B22** | **B23** | **B24** | **B25** | **B26** | **B27** | **B28** | **B29** | **B30** |
|  | 72 | 44 | 00 | 40 | 00 | 72 | 54 | 00 | 40 | 00 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **B31** | **B32** | **B33** | **B34** | **B35** | **B36** | **B37** | **B38** | **B39** | **B40** |
|  | 72 | 64 | 00 | 40 | 00 | 72 | 74 | 00 | 80 | 00 |

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

27.22.4.7.3.4.2 Procedure

Expected Sequence 3.1 (REFRESH, Steering of roaming, UTRAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USS | The first UMTS USS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - LAI (MCC/MNC/LAC): 254/001/0001.  - Access control: unrestricted.  The second UMTS USS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - LAI (MCC/MNC/LAC): 254/002/0001.  - Access control: unrestricted. |  |
| 2 | ME → USS | The ME registers to the first USS. |  |
| 3 | UICC  ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.1.1 | [Setting up LOCATION STATUS Event] |
| 4 | ME  UICC | FETCH |  |
| 5 | UICC  ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.1.1 |  |
| 6a | ME  UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.1.1 |  |
| 6b | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.1.2 | This step applies only if A.1/171 |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.1.1 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.1.1 | Note: Step 11 can occur at any time during execution of steps 10a to 10d |
| 10a | UICC | Void |  |
| 10b | ME → UICC | Update of EF FPLMN | [Deletion of the entries with PLMN 254/003 and PLMN 254/004] |
| 10c | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entries with PLMN 254/003 and PLMN 254/004] |
| 10d | ME → USS | From steps 9 -13:  The ME does not register to another USS than the currently selected and shall not send new LOCATION STATUS event to the UICC. |  |
| 11 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.1.1 | [normal ending]  Note: For a pre-release 11 ME, the UICC simulator does not need to evaluate the response |
| 12 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 13 |  | Wait approx. 180 seconds | [The ME does not register to another USS than the currently selected.] |
| 14 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.1.2 |  |
| 15 | ME → UICC | FETCH |  |
| 16 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.1.2 | Note: Step 18 can occur at any time during execution of steps 17a to 17c |
| 17a | UICC | Void |  |
| 17b | ME → UICC | Update of EF FPLMN | [Deletion of the entry with PLMN 254/002] |
| 17c | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entry with PLMN 254/002] |
| 18 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.1.2 | [normal ending] |
| 19 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 20 | ME → USS | The ME registers to the second USS. | Note: The ME might have registered to the second USS also before steps 18/19. |
| 21 | ME → UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.1.1 | PLMN MCC/MNC: 254/002, Normal service  Note: The ME send the Envelope after registration to the second USS, thus might have sent the Envelope also before steps 18/19. |
| 22 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.1.3 |  |
| 23 | ME → UICC | FETCH |  |
| 24 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.1.3 | Note: Step 26 can occur at any time during execution of steps 25a to 25c |
| 25a | UICC | Void |  |
| 25b | UICC | EF FPLMN | [PLMN entries 254/003 and PLMN 254/001 not existent in EF FPLMN] |
| 25c | ME | ME's internal memory | [Not explicitly verified: PLMN entries 254/003 and PLMN 254/001 not existent in FPLMN list] |
| 26 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.1.2 | [normal ending] |
| 27 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 28 | ME → USS | The ME registers to the first USS. | Note: The ME might have registered to the first USS also before steps 26/27. |
| 29 | ME → UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.1.2 | PLMN MCC/MNC: 254/001  Note: The ME send the Envelope after registration to the first USS, thus might have sent the Envelope also before steps 26/27. |
| 30 | UICC  ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.2.1 |  |
| 31 | ME  UICC | FETCH |  |
| 32 | UICC  ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.2.1 | [Event LOCATION STATUS download removed] |
| 33 | ME  UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.2.1 | The content of the Terminal Response is not part of the evaluation of the test case |
| 34 | USER  ME | SWITCH OFF ME |  |

PROACTIVE COMMAND: SET UP EVENT LIST 3.1.1

Same as PROACTIVE COMMAND: SET UP EVENT LIST 1.1.1 in clause 27.22.7.4.1.4.2.

TERMINAL RESPONSE: SET UP EVENT LIST 3.1.1

Same as TERMINAL RESPONSE: SET UP EVENT LIST 1.1.1 in clause 27.22.7.4.1.4.2.

PROACTIVE COMMAND: SET UP EVENT LIST 3.2.1

Same as PROACTIVE COMMAND: SET UP EVENT LIST 1.3.2 in clause 27.22.4.16.1.4.2.

TERMINAL RESPONSE: SET UP EVENT LIST 3.2.1

Same as TERMINAL RESPONSE: SET UP EVENT LIST 1.3.2 in clause 27.22.4.16.1.4.2.

PROACTIVE COMMAND: REFRESH 3.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: UTRAN

2ndPLMN: 254/004

2ndACT: GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | 80 | 00 | 52 | 44 | 00 | 00 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

PROACTIVE COMMAND: REFRESH 3.1.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/002

1stACT: UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 24 | 00 | 80 | 80 | 52 | 14 | 00 | 80 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.1.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

EVENT DOWNLOAD - LOCATION STATUS 3.1.1

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/002)

LAC the location Area Code (0001)

Cell ID Cell Identity Value (0001)

Extended Cell ID RNC-id value, see also Note 1

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 15 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 09 | 52 | 24 | 00 | 00 | 01 | 00 | 01 | Note 1 |  |  |

NOTE 1: The Extended Cell Identity Value is present. The values of the two bytes shall not be verified.

PROACTIVE COMMAND: REFRESH 3.1.3

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | 80 | 80 | 52 | 14 | 00 | 80 | 80 |  |

EVENT DOWNLOAD - LOCATION STATUS 3.1.2

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC: the mobile country and network code (254/001)

LAC: the location Area Code (0001)

Cell ID: Cell Identity Value (0001)

Extended Cell ID: RNC-id value, see also Note 1

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 15 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 09 | 52 | 14 | 00 | 00 | 01 | 00 | 01 | Note 1 |  |  |

NOTE 1: The Extended Cell Identity Value is present. The values of the two bytes shall not be verified.

Expected Sequence 3.2 (REFRESH, Steering of roaming, InterRAT)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USS | The UMTS USS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - LAI (MCC/MNC/LAC): 254/001/0001.  - Access control: unrestricted.  The GSM SS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - LAI (MCC/MNC/LAC): 254/002/0001.  - Cell ID: 0001  - Access control: unrestricted. |  |
| 2 | ME → USS | The ME registers to the UMTS USS and achieves updated idle mode. |  |
| 3 | UICC  ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.1.1 | [Setting up LOCATION STATUS Event] |
| 4 | ME  UICC | FETCH |  |
| 5 | UICC  ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.1.1 |  |
| 6 | ME  UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.1.1 | IF A.1/171 THEN ME sends an ENVELOPE: EVENT DOWNLOAD - Location Status 3.2.2 |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.2.1 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.2.1 | Note: Step 11 can occur at any time during execution of steps 10a to 10c |
| 10a | UICC | Void |  |
| 10b | ME → UICC | Update of EFFPLMN | [Deletion of the entry with PLMN 254/002] |
| 10c | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entry with PLMN 254/002] |
| 11 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.1.2 | [normal ending] |
| 12 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 13 | ME → USS | The ME registers to the GSM SS and is in updated idle mode. | Note: The ME might have registered to the second USS also before steps 11/12. |
| 14 | ME → UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.2.1 | PLMN MCC/MNC: 254/002, Normal service  Note: The ME send the Envelope after registration to the GSM SS, thus might have sent the Envelope also before steps 11/12. |
| 15 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.2.2 |  |
| 16 | ME → UICC | FETCH |  |
| 17 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.2.2 | Note: Step 19 can occur at any time during execution of steps 18a to 18c |
| 18a | UICC | Void |  |
| 18b | UICC | EFFPLMN | [Entries with PLMN 254/002 and PLMN 254/001 not existent in EFFPLMN] |
| 18c | ME | ME's internal memory | [Not explicitly verified: FPLMN entries with PLMN 254/002 and PLMN 254/001 not existent in FPLMN list] |
| 19 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.1.2 | [normal ending] |
| 20 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 21 | ME → USS | The ME registers to the UMTS USS and is in updated idle mode. | Note: The ME might have registered to the first USS also before steps 19/20. |
| 22 | ME → UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.2.2 | PLMN MCC/MNC: 254/001  Note: The ME send the Envelope after registration to the first USS, thus might have sent the Envelope also before steps 19/20. |
| 23 | UICC → ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.2.1 |  |
| 24 | ME → UICC | FETCH |  |
| 25 | UICC → ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.2.1 | [Event LOCATION STATUS download removed] |
| 26 | ME → UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.2.1 | The content of the Terminal Response is not part of the evaluation of the test case |
| 27 | USER → ME | SWITCH OFF ME |  |

PROACTIVE COMMAND: REFRESH 3.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/002

1stACT: GERAN

2ndPLMN: 254/001

2ndACT: UTRAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 24 | 00 | 00 | 80 | 52 | 14 | 00 | 80 | 00 |  |

PROACTIVE COMMAND: REFRESH 3.2.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: GERAN

2ndPLMN: 254/001

2ndACT: UTRAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | 00 | 80 | 52 | 14 | 00 | 80 | 00 |  |

EVENT DOWNLOAD - LOCATION STATUS 3.2.1

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/002)

LAC the location Area Code (0001)

Cell ID Cell Identity Value (0001)

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 13 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 07 | 52 | 24 | 00 | 00 | 01 | 00 | 01 |  |  |  |

EVENT DOWNLOAD - LOCATION STATUS 3.2.2

Same as PROACTIVE COMMAND: EVENT DOWNLOAD - LOCATION STATUS 3.1.2 in clause 27.22.4.7.3.4.2.

Expected Sequence 3.3 (REFRESH, Steering of roaming, E-UTRAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | E-USS/NB-SS | The first E-USS/NB-SS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - TAI (MCC/MNC/TAC): 254/001/0001.  - Access control: unrestricted.  The second E-USS/NB-SS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - TAI (MCC/MNC/TAC): 254/002/0001.  - Access control: unrestricted. |  |
| 2 | ME → E-USS/NB-SS | The ME registers to the first E-USS/NB-SS. |  |
| 3 | UICC  ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.1.1 | [Setting up LOCATION STATUS Event] |
| 4 | ME  UICC | FETCH |  |
| 5 | UICC  ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.1.1 |  |
| 6 | ME  UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.1.1 | IF A.1/171 THEN ME sends a ENVELOPE: EVENT DOWNLOAD - Location Status 3.3.3 |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.3.1 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.3.1 | Note: Step 11 can occur at any time during execution of steps 10a to 10d |
| 10a | UICC | Void |  |
| 10b | ME → UICC | Update of EF FPLMN | [Deletion of the entries with PLMN 254/003 and PLMN 254/004] |
| 10c | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entries with PLMN 254/003 and PLMN 254/004] |
| 10d | ME → E-USS/NB-SS | From steps 9 -13:  The ME does not register to another E-USS/NB-SS than the currently selected and shall not send new LOCATION STATUS event to the UICC. |  |
| 11 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.3.1 | [normal ending]  Note: For a pre-release 11 ME, the UICC simulator does not need to evaluate the response |
| 12 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 13 |  | Wait approx. 180 seconds | [The ME does not register to another E-USS/NB-SS than the currently selected.] |
| 14 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.3.2 |  |
| 15 | ME → UICC | FETCH |  |
| 16 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.3.2 | Note: Step 18 can occur at any time during execution of steps 17a to 17c |
| 17a | UICC | Void |  |
| 17b | ME → UICC | Update of EF FPLMN | [Deletion of the entry with PLMN 254/002] |
| 17c | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entry with PLMN 254/002] |
| 18 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.3.2 | [normal ending] |
| 19 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 20 | ME → E-USS/NB-SS | The ME registers to the second E-USS/NB-SS. | Note: The ME might have registered to the second E-USS/NB-SS also before steps 18/19. |
| 21 | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.3.2 | PLMN MCC/MNC: 254/002  Note: The ME send the Envelope after registration to the second E-USS/NB-SS, thus might have sent the Envelope also before steps 18/19. |
| 22 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.1.3 |  |
| 23 | ME → UICC | FETCH |  |
| 24 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.3.3 | Note: Step 26 can occur at any time during execution of steps 25a to 25c |
| 25a | UICC | Void |  |
| 25b | UICC | EF FPLMN | [PLMN entries 254/003 and PLMN 254/001 not existent in EF FPLMN] |
| 25c | ME | ME's internal memory | [Not explicitly verified: PLMN entries 254/003 and PLMN 254/001 not existent in FPLMN list] |
| 26 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.3.2 | [normal ending] |
| 27 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 28 | ME → E-USS/NB-SS | The ME registers to the first E-USS/NB-SS. | Note: The ME might have registered to the first E-USS/NB-SS also before steps 26/27. |
| 29 | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.3.3 | PLMN MCC/MNC: 254/001  Note: The ME send the Envelope after registration to the second E-USS/NB-SS, thus might have sent the Envelope also before steps 26/27. |
| 30 | UICC → ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.2.1 |  |
| 31 | ME → UICC | FETCH |  |
| 32 | UICC → ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.2.1 | [Event LOCATION STATUS download removed] |
| 33 | ME → UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.2.1 | The content of the Terminal Response is not part of the evaluation of the test case |
| 34 | USER → ME | SWITCH OFF ME |  |

PROACTIVE COMMAND: REFRESH 3.3.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: E-UTRAN, UTRAN

2ndPLMN: 254/004

2ndACT: GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | C0 | 00 | 52 | 44 | 00 | 00 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.3.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

PROACTIVE COMMAND: REFRESH 3.3.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/002

1stACT: E-UTRAN/UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: E-UTRAN/UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 24 | 00 | C0 | 80 | 52 | 14 | 00 | C0 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.3.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

EVENT DOWNLOAD - LOCATION STATUS 3.3.2

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/002)

TAC 0001

E-UTRAN cell id: 0001 (28bits)

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 15 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 09 | 52 | 24 | 00 | 00 | 01 | 00 | 00 | 00 | 1F |  |

PROACTIVE COMMAND: REFRESH 3.3.3

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: E-UTRAN/UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: E-UTRAN/UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | C0 | 80 | 52 | 14 | 00 | C0 | 80 |  |

EVENT DOWNLOAD - LOCATION STATUS 3.3.3

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/001)

TAC 0001

E-UTRAN cell id: 0001 (28bits)

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 15 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 09 | 52 | 14 | 00 | 00 | 01 | 00 | 00 | 00 | 1F |  |

Expected Sequence 3.4 (REFRESH, Steering of roaming, NG-RAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | NG-SS | The first NG-SS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - TAI (MCC/MNC/TAC): 254/001/000001.  - Access control: unrestricted.  The second NG-SS transmits on BCCH, with the following network parameters:  - Attach/detach: disabled.  - TAI (MCC/MNC/TAC): 254/002/000001.  - Access control: unrestricted. |  |
| 2 | ME → NG-SS | The ME registers to the first NG-SS. |  |
| 3 | UICC  ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.1.1 | [Setting up LOCATION STATUS Event] |
| 4 | ME  UICC | FETCH |  |
| 5 | UICC  ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.1.1 |  |
| 6a | ME  UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.1.1 |  |
| 6b | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.4.3 |  |
| 7 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.4.1 |  |
| 8 | ME → UICC | FETCH |  |
| 9 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.4.1 | Note: Step 11 can occur at any time during execution of steps 10a to 10c |
| 10a | ME → UICC | Update of EF FPLMN | [Deletion of the entries with PLMN 254/003 and PLMN 254/004] |
| 10b | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entries with PLMN 254/003 and PLMN 254/004] |
| 10c | ME → NG-SS | From steps 9-13:  The ME does not register to another NG-SS than the currently selected and shall not send new LOCATION STATUS event to the UICC. |  |
| 11 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.4.1 | [normal ending]  Note: For a pre-release 11 ME, the UICC simulator does not need to evaluate the response |
| 12 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 13 |  | Wait approx. 180 seconds | [The ME does not register to another NG-SS than the currently selected.] |
| 14 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.4.2 |  |
| 15 | ME → UICC | FETCH |  |
| 16 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.4.2 | Note: Step 18 can occur at any time during execution of steps 17a to 17b |
| 17a | ME → UICC | Update of EF FPLMN | [Deletion of the entry with PLMN 254/002] |
| 17b | ME | Update of ME's internal memory | [Not explicitly verified: Deletion of the FPLMN entry with PLMN 254/002] |
| 18 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.4.2 | [normal ending] |
| 19 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 20 | ME → NG-SS | The ME registers to the second NG-SS | Note: The ME might have registered to the second NG-SS also before steps 18/19. |
| 21 | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.4.2 | PLMN MCC/MNC: 254/002  Note: The ME send the Envelope after registration to the second NG-SS, thus might have sent the Envelope also before steps 18/19. |
| 22 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 3.4.3 |  |
| 23 | ME → UICC | FETCH |  |
| 24 | UICC → ME | PROACTIVE COMMAND: REFRESH 3.4.3 | Note: Step 26 can occur at any time during execution of steps 25a to 25b |
| 25a | UICC | EF FPLMN | [PLMN entries 254/003 and PLMN 254/001 not existent in EF FPLMN] |
| 25b | ME | ME's internal memory | [Not explicitly verified: PLMN entries 254/003 and PLMN 254/001 not existent in FPLMN list] |
| 26 | ME → UICC | TERMINAL RESPONSE: REFRESH 3.4.3 | [normal ending] |
| 27 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 28a | ME -> UICC | ENVELOPE: EVENT DOWNLOAD – Location Status 3.4.3A | This step is optional and applies in case ME did not successfully register to first NG-SS cell yet.  Note: If ME sends this Envelope (3.4.3A), it shall occur only before the Envelope (3.4.3) specified in step 29. |
| 28b | ME → NG-SS | The ME registers to the first NG-SS. | Note: The ME might have registered to the first NG-SS also before steps 26/27. |
| 29 | ME  UICC | ENVELOPE: EVENT DOWNLOAD - Location Status 3.4.3 | PLMN MCC/MNC: 254/001  Note: The ME send the Envelope after registration to the first NG-SS, thus might have sent the Envelope also before steps 26/27. |
| 30 | UICC → ME | PROACTIVE COMMAND PENDING: SET UP EVENT LIST 3.2.1 |  |
| 31 | ME → UICC | FETCH |  |
| 32 | UICC → ME | PROACTIVE COMMAND: SET UP EVENT LIST 3.2.1 | [Event LOCATION STATUS download removed] |
| 33 | ME → UICC | TERMINAL RESPONSE: SET UP EVENT LIST 3.2.1 | The content of the Terminal Response is not part of the evaluation of the test case |
| 34 | USER → ME | SWITCH OFF ME |  |

PROACTIVE COMMAND: REFRESH 3.4.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: E-UTRAN, UTRAN

2ndPLMN: 254/004

2ndACT: GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | C0 | 00 | 52 | 44 | 00 | 00 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.4.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

PROACTIVE COMMAND: REFRESH 3.4.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/002

1stACT: NG-RAN/UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: E-UTRAN/UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 24 | 00 | 88 | 80 | 52 | 14 | 00 | C0 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.4.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

ENVELOPE: EVENT DOWNLOAD - LOCATION STATUS 3.4.2

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/002)

TAC 000001

NR Cell id: 0000000001 (36bits)

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 17 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 0B | 52 | 24 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | 00 |
|  | 1F |  |  |  |  |  |  |  |  |  |  |  |

PROACTIVE COMMAND: REFRESH 3.4.3

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: UICC

Destination device: ME

PLMNwACT List

1stPLMN: 254/003

1stACT: E-UTRAN/UTRAN/GERAN

2ndPLMN: 254/001

2ndACT: NG-RAN/UTRAN/GERAN

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 15 | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 81 | 82 | 72 |
|  | 0A | 52 | 34 | 00 | C0 | 80 | 52 | 14 | 00 | 88 | 80 |  |

TERMINAL RESPONSE: REFRESH 3.4.3

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: Steering of roaming

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 07 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

ENVELOPE: EVENT DOWNLOAD - LOCATION STATUS 3.4.3A

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: No service

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 0A | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 9B | 01 | 02 |

ENVELOPE: EVENT DOWNLOAD - LOCATION STATUS 3.4.3

Logically:

Event list: Location status

Device identities

Source device: ME

Destination device: UICC

Location status: normal service

Location Information

MCC & MNC the mobile country and network code (254/001)

TAC 000001

NR Cell id: 0000000001 (36bits)

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D6 | 17 | 19 | 01 | 03 | 82 | 02 | 82 | 81 | 1B | 01 | 00 |
|  | 13 | 0B | 52 | 14 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | 00 |
|  | 1F |  |  |  |  |  |  |  |  |  |  |  |

27.22.4.7.3.5 Test requirement

The ME shall operate in the manner defined in expected sequences 3.1 to 3.3.

##### 27.22.4.7.4 REFRESH (AID)

27.22.4.7.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.4.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7, clause 8.18 and clause 8.60.

The ME shall support the IMS related requirements as defined and tested in:

- TS 24.229 [38] clause 5.1.1.7 and Annex C.4

- TS 34.229-1 [36] clause 8.15, Annex C.2, C.17 and C.18

The ME shall support the USIM Initialization procedure as defined in:

- TS 31.102 [14] clause 5.1.2 and Annex I.

27.22.4.7.4.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier and additionally correctly takes into account the Application Identifier if present in the Refresh command.

- Verification of correct Refresh command execution within the application executed on a any logical channel if the corresponding AID is present in the Refresh command

This may require the ME to perform:

- a USIM or ISIM initialization

- a re-read of the contents and structure of the ISIM on the USIM

- a successful return of the result of the execution of the command in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.7.4.4 Method of test

27.22.4.7.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as defined for the E-UTRAN/EPC ISIM-UICC in clause 27.22.2C.

For sequence 4.1 the ME is connected to the E-USS or the USS.

27.22.4.7.4.4.2 Procedure

Expected Sequence 4.1 (REFRESH with AID)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | USER → ME | The ME is switched on | ME will perform Profile Download, USIM and ISIM initialisation |
| 2 | ME → NWS | ME activates the required bearer, discoveres P-CSCF and registers with the values from the ISIM to IMS services | For E-UTRAN:  The EPS bearer context activation according to the procedures defined in TS 34.229-1 [36], Annex C.2 and C.18 is performed  For UTRAN:  A PDP context activation according to the procedures defined in TS 34.229-1 [36], Annex C.2 and C.17 is performed. |
| 3 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 4.1.1 | To inform the ME that EF\_FPLMN shall be re-read. |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 4.1.1 | EF\_FPLMN shall be read by the UE, but this might occur even after the Terminal Response.  An update of EF\_FPLMN by the UICC is not required in this test. |
| 6 | ME → UICC | TERMINAL RESPONSE: REFRESH 4.1.1A Or TERMINAL RESPONSE: REFRESH 4.1.1B | [normal ending]  [additional EFs read] |
| 7 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 8 |  | Continue with steps 1 – 4 of the "Expected Sequence" of test 8.15 of TS 34.229-1 with the following parameters:   * REFRESH command: PROACTIVE COMMAND: Refresh 4.2.1 * Initial Home Domain name = Updated Home Domain name * New IMPI in EF\_IMPI= 00101555666@test.3gpp.com * New IMPU in record 1 of EF\_IMPU= 00101555666@ims.mnc246.mcc081.3gppnetwork.org | The following requirements shall be verified:   1. After step 1 and before step 4 of the "Expected Sequence" of test 8.15 of TS 34.229-1the ME shall have sent TERMINAL RESPONSE: REFRESH 4.2.1A or TERMINAL RESPONSE: REFRESH 4.2.1B 2. The ME shall have fulfilled the test requieremnts defined in TS 34.229, clause 8.15.5 |

PROACTIVE COMMAND: REFRESH 4.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: File Change Notification

Device identities

Source device: UICC

Destination device: ME

File List

File 1: EF FPLMN

Application Identifier

Content: The 3GPP USIM AID used in the test system configuration

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 24 | 81 | 03 | 01 | 01 | 01 | 82 | 02 | 81 | 82 |
|  | 92 | 07 | 01 | 3F | 00 | 7F | FF | 6F | 7B | 2F | 10 |
|  | A0 | 00 | 00 | 00 | 87 | 10 | 02 | xx | xx | xx | xx |
|  | xx | xx | xx | xx | xx |  |  |  |  |  |  |

PROACTIVE COMMAND: REFRESH 4.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: ISIM Initialization

Device identities

Source device: UICC

Destination device: ME

Application Identifier

Content: The 3GPP ISIM AID used in the test system configuration

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1B | 81 | 03 | 01 | 01 | 03 | 82 | 02 | 81 | 82 |
|  | 2F | 10 | A0 | 00 | 00 | 00 | 87 | 10 | 04 | xx | xx |
|  | xx | xx | xx | xx | xx | xx | xx |  |  |  |  |

TERMINAL RESPONSE: REFRESH 4.1.1A/4.2.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM/ISIM Initialization

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

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

TERMINAL RESPONSE: REFRESH 4.1.1B/ 4.2.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: USIM/ISIM Initialization

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

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

27.22.4.7.4.5 Test requirement

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

##### 27.22.4.7.5 REFRESH (IMSI changing procedure, E-UTRAN)

27.22.4.7.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.5.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

* TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6.4.7.1, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7 and clause 8.18.

Additionally, the ME shall support the USIM Initialization and USIM application closure procedure as defined in:

* TS 31.102 [14] clause 5.1.2 and Annex I.

27.22.4.7.5.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier and the IMSI changing procedure. This may require the ME to perform:

- the USIM initialization

- a re-read of the contents and structure of the IMSI on the USIM

- a restart of the card session

- a successful return of the result of the execution of the command in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.7.5.4 Method of test

27.22.4.7.5.4.1 Initial conditions

The ME is connected to the USIM Simulator and connected to the E-USS/NB-SS, registered and has the default PDN connection established.

The E-UTRAN/NB-IoT parameters of the E-USS/NB-SS are:

- Mobile Country Code (MCC) = 246;

- Mobile Network Code (MNC) = 81;

- Tracking Area Code (TAC) = 0001;

The elementary files are coded as the default E-UTRAN/EPC UICC,

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

27.22.4.7.5.4.2 Procedure

**Expected Sequence 5.1 (REFRESH, UICC Reset for IMSI Changing procedure, E-UTRAN)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Direction** | **MESSAGE / Action** | **Comments** |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 5.1.1 | [To inform the ME that IMSI has changed] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 5.1.1 or 5.1.2 | IF terminal supports PD\_Refresh\_Enforcement\_Policy use PROACTIVE COMMAND: REFRESH 5.1.2, ELSE 5.1.1. |
| 4 | ME → E-USS/ NB-SS | Deactivate PDN Connection | ME will deactivate the PDN Connection  Note 1: this step is performed locally and may not reflect on the interface to the E-USS/ NB‑SS  Note 2: if the ME supports pc\_NB this step is performed only in case pc\_AttachWithPDN is supported by the ME. |
| 5 | ME → E-USS/ NB-SS | DETACH REQUEST | Indicates EPS detach or combined EPS/IMSI detach.  Note: this step can be performed in parallel or after step 6. |
| 6 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 7 | ME → UICC | ME performs UICC reset | Both, cold and warm resets are allowed |
| 8 | UICC | Update EF\_IMSI and EF\_EPSLOCI | The content of EF\_IMSI has been changed to "246813579" and the GUTI in EF\_EPSLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF' |
| 9 | ME → UICC | ME performs USIM Initialization, including send STATUS[P1='01'] and no TERMINAL RESPONSE shall be sent | [ME resets and performs USIM initialization] |
| 10 | ME → E-USS/ NB-SS | ATTACH REQUEST | The ME will register using IMSI "246813579". |
| 11 | E-USS/ NB‑SS → ME | ATTACH ACCEPT |  |
| 12 | ME → E-USS/ NB-SS | ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 5.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |

PROACTIVE COMMAND: REFRESH 5.1.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 0C | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 | 3A |
|  | 01 | 02 |

Expected Sequence 5.2 (REFRESH, 3G Session Reset for IMSI Changing procedure, E-UTRAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 5.2.1 | [To inform the ME that IMSI has changed] |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: REFRESH 5.2.1 or 5.2.2 | IF terminal supports PD\_ Refresh\_Enforcement\_Policy use  PROACTIVE COMMAND: REFRESH 5.2.2, ELSE 5.2.1. |
| 4 | ME→E-USS/NB-SS | Deactivate PDN Connection | ME will deactivate the PDN Connection  Note 1: this step is performed locally and may not reflect on the interface to the E-USS/NB-SS  Note 2: if the ME supports pc\_NB this step is performed only in case pc\_AttachWithPDN is supported by the ME. Note 3: this step can be performed in parallel or after step 6. |
| 5 | ME→E-USS/NB-SS | DETACH REQUEST | Note: this step can be performed in parallel or after step 6. |
| 6 | ME → UICC | STATUS[P1='02'] | If A.1/172 is supported, then the ME indicates to USIM that the termination procedure is starting, completes the 3G session termination procedure and resets the application via SELECT by DF name command with the AID.  The ME performs the USIM initialization. |
| 7 | UICC | Update EF IMSI and EF EPSLOCI | The content of EF IMSI has been updated to "246813579" and GUTI in EF EPSLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF' |
| 8 | ME → UICC | TERMINAL RESPONSE: REFRESH 5.2.1A  Or  TERMINAL RESPONSE: REFRESH 5.2.1B | [normal ending] |
| 9 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 10 | ME→ E-USS/NB-SS | ATTACH REQUEST | The ME will register using IMSI "246813579" in PS. |
| 11 | E-USS/NB-SS → ME | ATTACH ACCEPT |  |
| 12 | ME → E-USS/NB-SS | ATTACH COMPLETE |  |

PROACTIVE COMMAND: REFRESH 5.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF IMSI

File: EF EPSLOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 18 | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 0D | 02 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | E3 |  |  |  |  |  |  |  |  |  |  |

PROACTIVE COMMAND: REFRESH 5.2.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF IMSI

File: EF EPSLOCI

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1B | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 0D | 02 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 6F | E3 | 3A | 01 | 02 |  |  |  |  |  |  |  |

TERMINAL RESPONSE: REFRESH 5.2.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

TERMINAL RESPONSE: REFRESH 5.2.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 03 |

27.22.4.7.5.5 Test requirement

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

##### 27.22.4.7.6 REFRESH (IMSI changing procedure, NG-RAN)

27.22.4.7.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.6.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6.4.7.1, clause 6, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7 and clause 8.18.

Additionally, the ME shall support the USIM Initialization and USIM application closure procedure as defined in:

- TS 31.102 [14] clause 5.1.2, clause 5.1.3 and Annex I.

27.22.4.7.6.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier and the IMSI changing procedure. This may require the ME to perform:

- the USIM initialization

- a re-read of the contents and structure of the IMSI on the USIM

- a restart of the card session

- a successful return of the result of the execution of the command in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.7.6.4 Method of test

27.22.4.7.6.4.1 Initial conditions

The ME is connected to the USIM Simulator and connected to the NG-SS.

The NG-RAN parameters of the NG-SS are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01;

- Tracking Area Code (TAC) = 000001;

The default NG-RAN UICC is used.

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

27.22.4.7.6.4.2 Procedure

Expected Sequence 6.1 (REFRESH, UICC Reset for IMSI Changing procedure, NG-RAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | ME → NG-SS | ME successfully REGISTER with NG-RAN cell. |  |
| 2 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 6.1.1 or REFRESH 6.1.2 | [To inform the ME that IMSI has changed] |
| 3 | ME → UICC | FETCH |  |
| 4 | UICC → ME | PROACTIVE COMMAND: REFRESH 6.1.1 or REFRESH 6.1.2 | IF terminal supports PD\_Refresh\_Enforcement\_Policy use PROACTIVE COMMAND: REFRESH 6.1.2 ELSE REFRESH 6.1.1. |
| 5 | ME→NG-SS | Deregistration Request |  |
| 6 | ME → UICC | STATUS[P1='02'] | ME indicates to USIM that the termination procedure is starting |
| 7 | ME → UICC | ME performs UICC reset. | Both cold and warm resets are allowed |
| 8 | UICC | Update EFIMSI and EF5GS3GPPLOCI. | The content of EFIMSI has been changed to "246813579" and the 5G-GUTI in EF5GS3GPPLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF FF'. |
| 9 | ME→UICC | ME performs USIM Initialization, including send STATUS[P1='01'] and no TERMINAL RESPONSE shall be sent. | [ME resets and performs USIM initialization] |
| 10 | ME→NG-SS | Registration Request | The ME will register using IMSI "246813579" in NG-RAN. |
| 11 | NG-SS→ME | Registration Accept |  |
| 12 | ME→NG-SS | Registration Complete |  |

PROACTIVE COMMAND: REFRESH 6.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |

PROACTIVE COMMAND: REFRESH 6.1.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 0C | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 | 3A |
|  | 01 | 02 |

Expected Sequence 6.2 (REFRESH, 3G Session Reset for IMSI Changing procedure, NG-RAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | ME → NG-SS | ME successfully REGISTER with NG-RAN cell. |  |
| 2 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 6.2.1 or REFRESH 6.2.2 | [To inform the ME that IMSI has changed] |
| 3 | ME → UICC | FETCH |  |
| 4 | UICC → ME | PROACTIVE COMMAND: REFRESH 6.2.1 or REFRESH 6.2.2 | IF terminal supports PD\_Refresh\_Enforcement\_Policy use PROACTIVE COMMAND:REFRESH 6.2.2 ELSE REFRESH 6.2.1. |
| 5 | ME→NG-SS | Deregistration Request |  |
| 6 | ME → UICC | STATUS[P1='02'] | If A.1/172 is supported, then the ME indicates to USIM that the termination procedure is starting, completes the 3G session termination procedure and resets the application via SELECT by DF name command with the AID.  The ME performs the USIM initialization. |
| 7 | UICC | Update EFIMSI and EF5GS3GPPLOCI | The content of EFIMSI has been updated to "246813579" and 5G-GUTI in EF5GS3GPPLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF FF' |
| 8 | ME → UICC | TERMINAL RESPONSE: REFRESH 6.2.1A or TERMINAL RESPONSE: REFRESH 6.2.1B | [normal ending] |
| 9 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 10 | ME→NG-SS | Registration Request | The ME will register using IMSI "246813579" in NG-RAN. |
| 11 | NG-SS→ME | Registration Accept |  |
| 12 | ME→NG-SS | Registration Complete |  |

PROACTIVE COMMAND: REFRESH 6.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF IMSI

File: EF 5GS3GPPLOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1A | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 0F | 02 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 5F | C0 | 4F | 01 |  |  |  |  |  |  |  |  |

PROACTIVE COMMAND: REFRESH 6.2.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF IMSI

File: EF 5GS3GPPLOCI

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1D | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 0F | 02 | 3F | 00 | 7F | FF | 6F | 07 | 3F | 00 | 7F | FF |
|  | 5F | C0 | 4F | 01 | 3A | 01 | 02 |  |  |  |  |  |

TERMINAL RESPONSE: REFRESH 6.2.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

TERMINAL RESPONSE: REFRESH 6.2.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 03 |

27.22.4.7.6.5 Test requirement

The ME shall operate in the manner defined in expected sequences 6.1 to 6.2.

##### 27.22.4.7.7 REFRESH (SUPI\_NAI changing procedure, NG-RAN)

27.22.4.7.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.7.7.2 Conformance requirement

The ME shall support the REFRESH command as defined in:

- TS 31.111 [15] clause 6.1, clause 6.4.7, clause 6.4.7.1, clause 6, clause 6.6.13, clause 5.2, clause 8.6, clause 8.7 and clause 8.18.

Additionally the ME shall support the USIM Initialization and USIM application closure procedure as defined in:

- TS 31.102 [14] clause 5.1.1.2, clause 5.1.3 and Annex I.

27.22.4.7.7.3 Test purpose

To verify that the ME performs the Proactive Command – REFRESH in accordance with the Command Qualifier and the SUPI\_NAI changing procedure. This may require the ME to perform:

- the USIM initialization

- a re-read of the contents and structure of the SUPI\_NAI on the USIM

- a restart of the card session

- a successful return of the result of the execution of the command in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.7.7.4 Method of test

27.22.4.7.7.4.1 Initial conditions

The ME is connected to the USIM Simulator and connected to the NG-SS.

The NG-RAN parameters of the system simulator are:

- Mobile Country Code (MCC) = 001;

- Mobile Network Code (MNC) = 01;

- Tracking Area Code (TAC) = 000001;

The elementary files are coded as the default NG-RAN UICC with the following exceptions:

**EFUST (USIM Service Table)**

Logically:

User controlled PLMN selector available

Fixed dialling numbers available

The GSM Access available

The Group Identifier level 1 and level 2 not available

Service n 33 (Packed Switched Domain) shall be set to '1'

Enabled Services Table available

EPS Mobility Management Information available

Allowed CSG Lists and corresponding indications

5GS Mobility Management Information available

5G Security Parameters available

Subscription identifier privacy support available

SUCI calculation by the USIM not available

Support for SUPI of type NSI or GLI or GCI available

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | |  | |  | | |
|  | xxxx xxxx | | xxxx xxxx | | xx11 xxxx | | | ..... | | xxx0 111x | | | xxxxxx1x | |  | |  | | |

The coding of EFUST shall conform with the capabilities of the USIM used.

**EFSUPI\_NAI (SUPI as Network Access Identifier)**

Logically: userid18@example.com

SUPI Type: NSI

Username: userid18

Realm: example.com

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** |
| Hex | 80 | 14 | 75 | 73 | 65 | 72 | 69 | 64 |
|  | **B9** | **B10** | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** |
|  | 31 | 38 | 40 | 65 | 78 | 61 | 6D | 70 |
|  | **B17** | **B18** | **B19** | **B20** | **B21** | **B22** |  |  |
|  | 6C | 65 | 2E | 63 | 6F | 6D |  |  |

**EFIMSI (IMSI)**

This file shall not be available.

**EFAD (Administrative Data)**

Logically: Type approval operations

OFM to be deactivated by the Terminal

Length of MNC in the IMSI: 0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 |
| Hex | 80 | 00 | 00 | 00 |

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

27.22.4.7.7.4.2 Procedure

**Expected Sequence 7.1 (REFRESH, UICC Reset for SUPI\_NAI Changing procedure, NG-RAN)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Direction** | **MESSAGE / Action** | **Comments** |
| 1 | ME → NG-SS | ME successfully REGISTER with NG-RAN cell. | The ME registers using SUPI\_NAI "userid18@example.com" in NG-RAN |
| 2 | UICC | Update EF SUPI\_NAI and EF 5GSN3GPPLOCI. | The content of EF SUPI\_NAI has been changed to "userid19@example.com" and the 5G-GUTI in EF 5GSN3GPPLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF FF'. |
| 3 | UICC → ME | PROACTIVE COMMAND PENDING: REFRESH 7.1.1 | [To inform the ME that SUPI\_NAI has changed] |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 7.1.1 or 7.1.2 | IF terminal supports PD\_ Refresh\_Enforcement\_Policy use PROACTIVE COMMAND: REFRESH 7.1.2, ELSE 7.1.1. |
| 6 | ME→NG-SS | Deregistration Request |  |
| 7 | ME → UICC | ME performs UICC reset. | Both cold and warm resets are allowed |
| 8 | ME→NG-SS | Registration Request | The ME will register using SUPI\_NAI "userid19@example.com" in NG-RAN. |
| 9 | NG-SS→ME | Registration Accept |  |
| 10 | ME→NG-SS | Registration Complete |  |

PROACTIVE COMMAND: REFRESH 7.1.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 |

PROACTIVE COMMAND: REFRESH 7.1.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: UICC RESET

Device identities

Source device: UICC

Destination device: ME

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 0C | 81 | 03 | 01 | 01 | 04 | 82 | 02 | 81 | 82 | 3A |
|  | 01 | 02 |

**Expected Sequence 7.2 (REFRESH, 3G Session Reset for SUPI\_NAI Changing procedure, NG-RAN)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Direction** | **MESSAGE / Action** | **Comments** |
| 1 | ME → NG-SS | ME successfully REGISTER with NG-RAN cell. | The ME registers using SUPI\_NAI "userid18@example.com" in NG-RAN |
| 2 | UICC | Update EF SUPI\_NAI and EF 5GSN3GPPLOCI. | The content of EF SUPI\_NAI has been changed to "userid19@example.com" and the 5G-GUTI in EF 5GSN3GPPLOCI is updated to 'FF FF FF FF FF FF FF FF FF FF FF FF FF'. |
| 3 | UICC→ ME | PROACTIVE COMMAND PENDING: REFRESH 7.2.1 | [To inform the ME that SUPI\_NAI has changed] |
| 4 | ME → UICC | FETCH |  |
| 5 | UICC → ME | PROACTIVE COMMAND: REFRESH 7.2.1 or 7.2.2 | IF terminal supports PD\_ Refresh\_Enforcement\_Policy use PROACTIVE COMMAND: REFRESH 7.2.2, ELSE 7.2.1. |
| 6 | ME→NG-SS | Deregistration Request |  |
| 7 | ME → UICC | STATUS[P1='02'] | If A.1/172 is supported, then the ME indicates to USIM that the termination procedure is starting, completes the 3G session termination procedure and resets the application via SELECT by DF name command with the AID.  The ME performs the USIM initialization. |
| 8 | ME → UICC | TERMINAL RESPONSE: REFRESH 7.2.1A or TERMINAL RESPONSE: REFRESH 7.2.1B | [normal ending] |
| 9 | UICC → ME | PROACTIVE UICC SESSION ENDED |  |
| 10 | ME→NG-SS | Registration Request | The ME will register using SUPI\_NAI "userid19@example.com" in NG-RAN. |
| 11 | NG-SS→ME | Registration Accept |  |
| 12 | ME→NG-SS | Registration Complete |  |

PROACTIVE COMMAND: REFRESH 7.2.1

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF SUPI\_NAI

File: EF 5GSN3GPPLOCI

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1C | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 11 | 02 | 3F | 00 | 7F | FF | 5F | C0 | 4F | 09 | 3F | 00 |
|  | 7F | FF | 5F | C0 | 4F | 02 |  |  |  |  |  |  |

PROACTIVE COMMAND: REFRESH 7.2.2

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: UICC

Destination device: ME

File list

Number of files: 2

File: EF SUPI\_NAI

File: EF 5GSN3GPPLOCI

Refresh enforcement policy: Force immediate REFRESH even if the terminal is busy on data call

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 1F | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 81 | 82 | 92 |
|  | 11 | 02 | 3F | 00 | 7F | FF | 5F | C0 | 4F | 09 | 3F | 00 |
|  | 7F | FF | 5F | C0 | 4F | 02 | 3A | 01 | 02 |  |  |  |

TERMINAL RESPONSE: REFRESH 7.2.1A

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

TERMINAL RESPONSE: REFRESH 7.2.1B

Logically:

Command details

Command number: 1

Command type: REFRESH

Command qualifier: 3G Session Reset

Device identities

Source device: ME

Destination device: UICC

Result

General Result: REFRESH performed with additional EFs read

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 01 | 06 | 82 | 02 | 82 | 81 | 83 | 01 | 03 |

27.22.4.7.7.5 Test requirement

The ME shall operate in the manner defined in expected sequences 7.1 to 7.2.

#### 27.22.4.8 SET UP MENU and ENVELOPE MENU SELECTION

##### 27.22.4.8.1 SET UP MENU (normal) and ENVELOPE MENU SELECTION

27.22.4.8.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.1.2 Conformance requirement

The ME shall support the SET UP MENU command as defined in:

- TS 31.111 [15] clause 5, clause 6.4.8, clause 6.6.7, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.9 and clause 9.4.

The ME shall support MENU SELECTION as defined in:

- TS 31.111 [15] clause 4.4, clause 5.2, clause 6.4.8, clause 6.9, clause 7.2, clause 8.7 and clause 8.10.

27.22.4.8.1.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME replaces the current list of menu items with the list of menu items contained in the SET UP MENU command.

To verify that the ME removes the current list of menu items following receipt of a SET UP MENU command with no items.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

To verify that when the help is available for the command and the user gas indicated the need to get help information on one of the items, the ME informs properly the UICC about an HELP REQUEST, using the MENU SELECTION mechanism.

27.22.4.8.1.4 Method of test

27.22.4.8.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.1.4.2 Procedure

Expected Sequence 1.1 (SET UP MENU and MENU SELECTION, without Help Request, Replace and Remove a Toolkit Menu)

See ETSI TS 102 384 [26] in clause 27.22.4.8.1.4.2, Expected Sequence 1.1.

Expected Sequence 1.2 (SET UP MENU, Large Menu with many items or with large items or with Large Alpha Identifier)

See ETSI TS 102 384 [26] in clause 27.22.4.8.1.4.2, Expected Sequence 1.2.

The following table details the test requirements with relation to the tested features:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Proactive UICC Command Facilities | | |
| Proactive UICC Command Number | Alpha Identifier Length | Number of items | Maximum length of item |
| 1.1.1 | 12 | 4 | 6 |
| 1.1.2 | 12 | 2 | 3 |
| 1.1.3 | 10 | 0 | - |
| 1.2.1 | 10 | 30 | 8 |
| 1.2.2 | 10 | 7 | 37 |
| 1.2.3 | 235 | 1 | 1 |

27.22.4.8.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 1.1 and in expected sequence 1.2.

##### 27.22.4.8.2 SET UP MENU (help request support) and ENVELOPE MENU SELECTION

27.22.4.8.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.2.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- TS 31.111 [15] clause 8.21.

27.22.4.8.2.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that when the help is available for the command and the user has indicated the need to get help information on one of the items, the ME informs properly the UICC about an HELP REQUEST, using the MENU SELECTION mechanism.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.2.4 Method of test

27.22.4.8.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.2.4.2 Procedure

Expected Sequence 2.1 (SET UP MENU and MENU SELECTION, with Help Request, Replace and Remove a Toolkit Menu)

See ETSI TS 102 384 [26] in clause 27.22.4.8.2.4.2, Expected Sequence 2.1.

27.22.4.8.2.5 Test requirement

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

##### 27.22.4.8.3 SET UP MENU (next action support) and ENVELOPE MENU SELECTION

27.22.4.8.3.1 Definition and applicability

See clause 3.2.2.

If the UICC provides an Items Next Action Indicator data object, the comprehension required flag shall be set to '0'.

27.22.4.8.3.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- TS 31.111 [15] clause 8.24.

27.22.4.8.3.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the next action indicator is supported.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.3.4 Method of test

27.22.4.8.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.3.4.2 Procedure

Expected Sequence 3.1 (SET UP MENU, next action indicator "Send SM", "Set Up Call", "Launch Browser", "Provide Local Information", successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.3.4.2, Expected Sequence 3.1.

27.22.4.8.3.5 Test requirement

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

##### 27.22.4.8.4 SET UP MENU (display of icons) and ENVELOPE MENU SELECTION

27.22.4.8.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.4.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clause 6.5.4, 8.31 and 8.32.

27.22.4.8.4.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that icons are displayed with the command Set Up Menu in the Alpha Identifier and Items Data Objects. To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.4.4 Method of test

27.22.4.8.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.4.4.2 Procedure

Expected Sequence 4.1A (SET UP MENU, BASIC ICON NOT SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.4.4.2, Expected Sequence 4.1A.

Expected Sequence 4.1B (SET UP MENU, BASIC ICON NOT SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.8.4.4.2, Expected Sequence 4.1B.

Expected Sequence 4.2A (SET UP MENU, BASIC ICON SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.4.4.2, Expected Sequence 4.2A.

Expected Sequence 4.2B (SET UP MENU, BASIC ICON SELF EXPLANATORY in ALPHA ID and ITEMS DATA OBJECTS, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.8.4.4.2, Expected Sequence 4.2B.

27.22.4.8.4.5 Test requirement

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

##### 27.22.4.8.5 SET UP MENU (soft keys support) and ENVELOPE MENU SELECTION

27.22.4.8.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.5.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1.

27.22.4.8.5.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that if soft key preferred is indicated in the command details and soft key for SET UP MENU is supported by the ME and the number of icon items does not exceed the number of soft keys available, then the ME displays those icons as soft key.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.5.4 Method of test

27.22.4.8.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.5.4.2 Procedure

Expected Sequence 5.1 (SET UP MENU, SOFT KEY PREFERRED, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.5.4.2, Expected Sequence 5.1.

27.22.4.8.5.5 Test requirement

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

##### 27.22.4.8.6 SET UP MENU (support of Text Attribute) and ENVELOPE MENU SELECTION

27.22.4.8.6.1 SET UP MENU (support of Text Attribute – Left Alignment) and ENVELOPE MENU SELECTION

27.22.4.8.6.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.1.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.1.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the left alignment text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.1.4 Method of test

27.22.4.8.6.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.1.4.2 Procedure

Expected Sequence 6.1 (SET UP MENU, Text Attribute – Left Alignment, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.1.4.2, Expected Sequence 6.1.

27.22.4.8.6.1.5 Test requirement

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

27.22.4.8.6.2 SET UP MENU (support of Text Attribute – Center Alignment) and ENVELOPE MENU SELECTION

27.22.4.8.6.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.2.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.2.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the center alignment text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.2.4 Method of test

27.22.4.8.6.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.2.4.2 Procedure

Expected Sequence 6.2 (SET UP MENU, Text Attribute – Center Alignment, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.2.4.2, Expected Sequence 6.2.

27.22.4.8.6.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.2.

27.22.4.8.6.3 SET UP MENU (support of Text Attribute – Right Alignment) and ENVELOPE MENU SELECTION

27.22.4.8.6.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.3.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.3.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the right alignment text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.3.4 Method of test

27.22.4.8.6.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.3.4.2 Procedure

Expected Sequence 6.3 (SET UP MENU, Text Attribute – Right Alignment, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.3.4.2, Expected Sequence 6.3.

27.22.4.8.6.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.3.

27.22.4.8.6.4 SET UP MENU (support of Text Attribute – Large Font Size) and ENVELOPE MENU SELECTION

27.22.4.8.6.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.4.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.4.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the large font size text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.4.4 Method of test

27.22.4.8.6.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.4.4.2 Procedure

Expected Sequence 6.4 (SET UP MENU, Text Attribute – Large Font Size, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.4.4.2, Expected Sequence 6.4.

27.22.4.8.6.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.4.

27.22.4.8.6.5 SET UP MENU (support of Text Attribute – Small Font Size) and ENVELOPE MENU SELECTION

27.22.4.8.6.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.5.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.5.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the with small font size text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.5.4 Method of test

27.22.4.8.6.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.5.4.2 Procedure

Expected Sequence 6.5 (SET UP MENU, Text Attribute – Small Font Size, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.5.4.2, Expected Sequence 6.5.

27.22.4.8.6.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.5.

27.22.4.8.6.6 SET UP MENU (support of Text Attribute – Bold On) and ENVELOPE MENU SELECTION

27.22.4.8.6.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.6.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.6.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.6.4 Method of test

27.22.4.8.6.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.6.4.2 Procedure

Expected Sequence 6.6 (SET UP MENU, Text Attribute – Bold On, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.6.4.2, Expected Sequence 6.6.

27.22.4.8.6.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.6.

27.22.4.8.6.7 SET UP MENU (support of Text Attribute – Italic On) and ENVELOPE MENU SELECTION

27.22.4.8.6.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.7.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.7.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.7.4 Method of test

27.22.4.8.6.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.7.4.2 Procedure

Expected Sequence 6.7 (SET UP MENU, Text Attribute – Italic On, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.7.4.2, Expected Sequence 6.7.

27.22.4.8.6.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.7.

27.22.4.8.6.8 SET UP MENU (support of Text Attribute – Underline On) and ENVELOPE MENU SELECTION

27.22.4.8.6.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.8.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.8.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.8.4 Method of test

27.22.4.8.6.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.8.4.2 Procedure

Expected Sequence 6.8 (SET UP MENU, Text Attribute – Underline On, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.8.4.2, Expected Sequence 6.8.

27.22.4.8.6.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.8.

27.22.4.8.6.9 SET UP MENU (support of Text Attribute – Strikethrough On) and ENVELOPE MENU SELECTION

27.22.4.8.6.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.9.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.9.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.9.4 Method of test

27.22.4.8.6.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.9.4.2 Procedure

Expected Sequence 6.9 (SET UP MENU, Text Attribute – Strikethrough On, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.9.4.2, Expected Sequence 6.9.

27.22.4.8.6.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.9.

27.22.4.8.6.10 SET UP MENU (support of Text Attribute – Foreground and Background Colour) and ENVELOPE MENU SELECTION

27.22.4.8.6.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.6.10.2 Conformance requirement

Requirements are the same as in clause 27.22.4.8.1.1, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.8.6.10.3 Test purpose

To verify that the ME correctly integrates the menu items contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that text is displayed according to the text attribute configuration within the command Set Up Menu and the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

27.22.4.8.6.10.4 Method of test

27.22.4.8.6.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.6.10.4.2 Procedure

Expected Sequence 6.10 (SET UP MENU, Text Attribute – Foreground and Background Colour, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.8.6.10.4.2, Expected Sequence 6.10.

27.22.4.8.6.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 6.10.

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

27.22.4.8.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.7.2 Conformance requirement

The ME shall support the SET UP MENU command as defined in:

- TS 31.111 [15] clause 5, clause 6.4.8, clause 6.6.7, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.9 and clause 9.4.

The ME shall support MENU SELECTION as defined in:

- TS 31.111 [15] clause 4.4, clause 5.2, clause 6.4.8, clause 6.9, clause 7.2, clause 8.7 and clause 8.10.

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

27.22.4.8.7.3 Test purpose

To verify that the ME correctly integrates the menu items in UCS2 coding contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME replaces the current list of menu items with the list of menu items contained in the SET UP MENU command.

To verify that the ME removes the current list of menu items following receipt of a SET UP MENU command with no items.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

To verify that when the help is available for the command and the user gas indicated the need to get help information on one of the items, the ME informs properly the UICC about an HELP REQUEST, using the MENU SELECTION mechanism.

27.22.4.8.7.4 Method of test

27.22.4.8.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.7.4.2 Procedure

Expected Sequence 7.1 (SET UP MENU and MENU SELECTION, without Help Request, Replace and Remove a Toolkit Menu, with UCS2 in Cyrillic Characters)

See ETSI TS 102 384 [26] in clause 27.22.4.8.7.4.2, Expected Sequence 7.1.

27.22.4.8.7.5 Test requirement

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

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

27.22.4.8.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.8.2 Conformance requirement

The ME shall support the SET UP MENU command as defined in:

- TS 31.111 [15] clause 5, clause 6.4.8, clause 6.6.7, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.9 and clause 9.4

The ME shall support MENU SELECTION as defined in:

- TS 31.111 [15] clause 4.4, clause 5.2, clause 6.4.8, clause 6.9, clause 7.2, clause 8.7 and clause 8.10.

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

27.22.4.8.8.3 Test purpose

To verify that the ME correctly integrates the menu items in UCS2 coding contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME replaces the current list of menu items with the list of menu items contained in the SET UP MENU command.

To verify that the ME removes the current list of menu items following receipt of a SET UP MENU command with no items.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

To verify that when the help is available for the command and the user gas indicated the need to get help information on one of the items, the ME informs properly the UICC about an HELP REQUEST, using the MENU SELECTION mechanism.

27.22.4.8.8.4 Method of test

27.22.4.8.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.8.4.2 Procedure

Expected Sequence 8.1 (SET UP MENU and MENU SELECTION, without Help Request, Replace and Remove a Toolkit Menu, with UCS2 – Chinese characters)

See ETSI TS 102 384 [26] in clause 27.22.4.8.8.4.2, Expected Sequence 8.1.

27.22.4.8.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

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

27.22.4.8.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.8.9.2 Conformance requirement

The ME shall support the SET UP MENU command as defined in:

- TS 31.111 [15] clause 5, clause 6.4.8, clause 6.6.7, clause 6.8, clause 6.11, clause 8.6, clause 8.7, clause 8.2, clause 8.9 and clause 9.4.

The ME shall support MENU SELECTION as defined in:

- TS 31.111 [15] clause 4.4, clause 5.2, clause 6.4.8, clause 6.9, clause 7.2, clause 8.7 and clause 8.10.

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

27.22.4.8.9.3 Test purpose

To verify that the ME correctly integrates the menu items in UCS2 coding contained in the SET UP MENU proactive UICC command, and returns a successful response in the TERMINAL RESPONSE command sent to the UICC.

To verify that the ME replaces the current list of menu items with the list of menu items contained in the SET UP MENU command.

To verify that the ME removes the current list of menu items following receipt of a SET UP MENU command with no items.

To verify that the ME correctly passes the identifier of the selected menu item to the UICC using the ENVELOPE (MENU SELECTION) command.

To verify that when the help is available for the command and the user gas indicated the need to get help information on one of the items, the ME informs properly the UICC about an HELP REQUEST, using the MENU SELECTION mechanism.

27.22.4.8.9.4 Method of test

27.22.4.8.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

The ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

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

27.22.4.8.9.4.2 Procedure

Expected Sequence 9.1 (SET UP MENU and MENU SELECTION, without Help Request, Replace and Remove a Toolkit Menu, with UCS2 in Katakana Characters)

See ETSI TS 102 384 [26] in clause 27.22.4.8.9.4.2, Expected Sequence 9.1.

27.22.4.8.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.1.

#### 27.22.4.9 SELECT ITEM

##### 27.22.4.9.1 SELECT ITEM (mandatory features for ME supporting SELECT ITEM)

27.22.4.9.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.1.2 Conformance requirement

The ME shall support the Proactive UICC: Select Item facility as defined in the following technical specifications:

- TS 31.111 [15] clause 5, clause 6.4.9, clause 6.6.8, clause 6.8, clause 8.6, clause 8.7, clause 8.2, clause 8.9, clause 9.4 and clause 10.

27.22.4.9.1.3 Test purpose

To verify that the ME correctly presents the set of items contained in the SELECT ITEM proactive UICC command, and returns a TERMINAL RESPONSE command to the UICC with the identifier of the item chosen.

To verify that the ME allows a SELECT ITEM proactive UICC command within the maximum 255 byte BER-TLV boundary.

To verify that the ME returns a TERMINAL RESPONSE with "Proactive UICC application session terminated by the user", if the user has indicated the need to end the proactive UICC session.

To verify that the ME returns a TERMINAL RESPONSE with "Backwards move in the proactive UICC application session requested by the user", if the user has indicated the need to go backwards in the proactive UICC application session.

27.22.4.9.1.4 Method of test

27.22.4.9.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.1.4.2 Procedure

Expected Sequence 1.1 (SELECT ITEM, mandatory features, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.1.

Expected Sequence 1.2 (SELECT ITEM, large menu, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.2.

Expected Sequence 1.3 (SELECT ITEM, call options, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.3.

Expected Sequence 1.4 (SELECT ITEM, backward move by user, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.4.

Expected Sequence 1.5 (SELECT ITEM, "Y", successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.5.

Expected Sequence 1.6 (SELECT ITEM, Large menu, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.1.4.2, Expected Sequence 1.6.

The following table details the test commands with relation to the tested features:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Proactive UICC Command Facilities | | |
| Proactive UICC Command SELECT ITEM Number | Alpha Identifier Length | Number of items | Maximum length of item |
| 1.1 | 14 | 4 | 6 |
| 1.2 | 10 | 30 | 8 |
| 1.3 | 10 | 7 | 43 |
| 1.4 | 11 | 2 | 3 |
| 1.5 | 236 | 1 | 1 |
| 1.6 | 10 | 7 | 37 |

27.22.4.9.1.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 (SELECT ITEM, mandatory features).

##### 27.22.4.9.2 SELECT ITEM (next action support)

27.22.4.9.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.2.2 Conformance Requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.2.3 Test purpose

To verify that the mobile supports next action indicator mode.

27.22.4.9.2.4 Method of test

27.22.4.9.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.2.4.2 Procedure

Expected Sequence 2.1 (SELECT ITEM, next action indicator, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.2.4.2, Expected Sequence 2.1.

27.22.4.9.2.5 Test requirement

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

##### 27.22.4.9.3 SELECT ITEM (default item support)

27.22.4.9.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.3.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.3.3 Test purpose

To verify that the mobile supports "default item" mode.

27.22.4.9.3.4 Method of test

27.22.4.9.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.3.4.2 Procedure

Expected Sequence 3.1 (SELECT ITEM, default item, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.3.4.2, Expected Sequence 3.1.

27.22.4.9.3.5 Test requirement

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

##### 27.22.4.9.4 SELECT ITEM (help request support)

27.22.4.9.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.4.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.4.3 Test purpose

To verify that the mobile supports "help request" for the command Select Item.

27.22.4.9.4.4 Method of test

27.22.4.9.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.4.4.2 Procedure

Expected Sequence 4.1 (SELECT ITEM, help request, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.4.4.2, Expected Sequence 4.1.

27.22.4.9.4.5 Test requirement

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

##### 27.22.4.9.5 SELECT ITEM (icons support)

27.22.4.9.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.5.2 Conformance requirement

Same as clause 27.22.4.9.1.2 and TS 31.111 [15] clause 8.31 and clause 8.32.

27.22.4.9.5.3 Test purpose

To verify that the mobile displays icons with the command Select Item.

27.22.4.9.5.4 Method of test

27.22.4.9.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.5.4.2 Procedure

Expected Sequence 5.1A (SELECT ITEM, BASIC ICON NOT SELF EXPLANATORY, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.5.4.2, Expected Sequence 5.1A.

Expected Sequence 5.1B (SELECT ITEM, BASIC ICON NOT SELF EXPLANATORY, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.9.5.4.2, Expected Sequence 5.1B.

Expected Sequence 5.2A (SELECT ITEM, BASIC ICON SELF EXPLANATORY, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.5.4.2, Expected Sequence 5.2A.

Expected Sequence 5.2B (SELECT ITEM, BASIC ICON SELF EXPLANATORY, requested icon could not be displayed)

See ETSI TS 102 384 [26] in clause 27.22.4.9.5.4.2, Expected Sequence 5.2B.

27.22.4.9.5.5 Test requirement

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

##### 27.22.4.9.6 SELECT ITEM (presentation style)

27.22.4.9.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.6.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.6.3 Test purpose

To verify that the mobile supports the "presentation style" with the command Select Item.

27.22.4.9.6.4 Method of test

27.22.4.9.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.6.4.2 Procedure

Expected Sequence 6.1 (SELECT ITEM, PRESENTATION AS A CHOICE OF NAVIGATION OPTIONS, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.6.4.2, Expected Sequence 6.1.

Expected Sequence 6.2 (SELECT ITEM, PRESENTATION AS A CHOICE OF DATA VALUES, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.6.4.2, Expected Sequence 6.2.

27.22.4.9.6.5 Test requirement

The ME shall operate in the manner defined in expected sequences 6.1 and 6.2.

##### 27.22.4.9.7 SELECT ITEM (soft keys support)

27.22.4.9.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.7.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.7.3 Test purpose

To verify that the mobile supports the "soft keys" with the command Select Item.

27.22.4.9.7.4 Method of test

27.22.4.9.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.7.4.2 Procedure

Expected Sequence 7.1 (SELECT ITEM, SELECTING USING SOFT KEYS PREFERRED, successful, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.7.4.2, Expected Sequence 7.1.

27.22.4.9.7.5 Test requirement

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

##### 27.22.4.9.8 SELECT ITEM (Support of "No response from user")

27.22.4.9.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.8.2 Conformance requirement

Same as clause 27.22.4.9.1.2.

27.22.4.9.8.3 Test purpose

To verify that after a period of user inactivity the ME returns a "No response from user" result value in the TERMINAL RESPONSE command sent to the UICC.

27.22.4.9.8.4 Method of test

27.22.4.9.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

The ME Manufacturer shall have defined the "no response from user" period of time as declared in table A.2/4.

The USIM Simulator shall be set to that period of time.

27.22.4.9.8.4.2 Procedure

Expected Sequence 8.1 (SELECT ITEM, no response from user)

See ETSI TS 102 384 [26] in clause 27.22.4.9.8.4.2, Expected Sequence 8.1.

27.22.4.9.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 8.1.

##### 27.22.4.9.9 SELECT ITEM (Support of Text Attribute)

27.22.4.9.9.1 SELECT ITEM (Support of Text Attribute – Left Alignment)

27.22.4.9.9.1.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.1.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.1.3 Test purpose

To verify that the ME displays text formatted according to the left alignment text attribute configuration within the command Select Item.

27.22.4.9.9.1.4 Method of test

27.22.4.9.9.1.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.1.4.2 Procedure

Expected Sequence 9.1 (SELECT ITEM, Text Attribute – Left Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.1.4.2, Expected Sequence 9.1.

27.22.4.9.9.1.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.1.

27.22.4.9.9.2 SELECT ITEM (Support of Text Attribute – Center Alignment)

27.22.4.9.9.2.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.2.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.2.3 Test purpose

To verify that the ME displays text formatted according to the center alignment text attribute configuration within the command Select Item.

27.22.4.9.9.2.4 Method of test

27.22.4.9.9.2.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.2.4.2 Procedure

Expected Sequence 9.2 (SELECT ITEM, Text Attribute – Center Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.2.4.2, Expected Sequence 9.2.

27.22.4.9.9.2.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.2.

27.22.4.9.9.3 SELECT ITEM (Support of Text Attribute – Right Alignment)

27.22.4.9.9.3.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.3.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.3.3 Test purpose

To verify that the ME displays text formatted according to the right alignment text attribute configuration within the command Select Item.

27.22.4.9.9.3.4 Method of test

27.22.4.9.9.3.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.3.4.2 Procedure

Expected Sequence 9.3 (SELECT ITEM, Text Attribute – Right Alignment)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.3.4.2, Expected Sequence 9.3.

27.22.4.9.9.3.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.3.

27.22.4.9.9.4 SELECT ITEM (Support of Text Attribute – Large Font Size)

27.22.4.9.9.4.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.4.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.4.3 Test purpose

To verify that the ME displays text formatted according to the large font size text attribute configuration within the command Select Item.

27.22.4.9.9.4.4 Method of test

27.22.4.9.9.4.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.4.4.2 Procedure

Expected Sequence 9.4 (SELECT ITEM, Text Attribute – Large Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.4.4.2, Expected Sequence 9.4.

27.22.4.9.9.4.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.4.

27.22.4.9.9.5 SELECT ITEM (Support of Text Attribute – Small Font Size)

27.22.4.9.9.5.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.5.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.5.3 Test purpose

To verify that the ME displays text formatted according to the small font size text attribute configuration within the command Select Item.

27.22.4.9.9.5.4 Method of test

27.22.4.9.9.5.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.5.4.2 Procedure

Expected Sequence 9.5 (SELECT ITEM, Text Attribute – Small Font Size)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.5.4.2, Expected Sequence 9.5.

27.22.4.9.9.5.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.5.

27.22.4.9.9.6 SELECT ITEM (Support of Text Attribute – Bold On)

27.22.4.9.9.6.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.6.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.6.3 Test purpose

To verify that the ME displays text formatted according to the bold text attribute configuration within the command Select Item.

27.22.4.9.9.6.4 Method of test

27.22.4.9.9.6.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.6.4.2 Procedure

Expected Sequence 9.6 (SELECT ITEM, Text Attribute – Bold On)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.6.4.2, Expected Sequence 9.6.

27.22.4.9.9.6.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.6.

27.22.4.9.9.7 SELECT ITEM (Support of Text Attribute – Italic On)

27.22.4.9.9.7.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.7.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.7.3 Test purpose

To verify that the ME displays text formatted according to the italic text attribute configuration within the command Select Item.

27.22.4.9.9.7.4 Method of test

27.22.4.9.9.7.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.7.4.2 Procedure

Expected Sequence 9.7 (SELECT ITEM, Text Attribute – Italic On)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.7.4.2, Expected Sequence 9.7.

27.22.4.9.9.7.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.7.

27.22.4.9.9.8 SELECT ITEM (Support of Text Attribute – Underline On)

27.22.4.9.9.8.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.8.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.8.3 Test purpose

To verify that the ME displays text formatted according to the underline text attribute configuration within the command Select Item.

27.22.4.9.9.8.4 Method of test

27.22.4.9.9.8.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.8.4.2 Procedure

Expected Sequence 9.8 (SELECT ITEM, Text Attribute – Underline On)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.8.4.2, Expected Sequence 9.8.

27.22.4.9.9.8.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.8.

27.22.4.9.9.9 SELECT ITEM (Support of Text Attribute – Strikethrough On)

27.22.4.9.9.9.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.9.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.9.3 Test purpose

To verify that the ME displays text formatted according to the strikethrough text attribute configuration within the command Select Item.

27.22.4.9.9.9.4 Method of test

27.22.4.9.9.9.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.9.4.2 Procedure

Expected Sequence 9.9 (SELECT ITEM, Text Attribute – Strikethrough On)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.9.4.2, Expected Sequence 9.9.

27.22.4.9.9.9.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.9.

27.22.4.9.9.10 SELECT ITEM (Support of Text Attribute – Foreground and Background Colour)

27.22.4.9.9.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.9.10.2 Conformance requirement

Requirements are the same as in clause 27.22.4.9.1.2, with an additional one:

- 3GPP 31.111 [15] clauses 6.5.4, 8.70 and 8.71.

27.22.4.9.9.10.3 Test purpose

To verify that the ME displays text formatted according to the foreground and background colour text attribute configuration within the command Select Item.

27.22.4.9.9.10.4 Method of test

27.22.4.9.9.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.9.10.4.2 Procedure

Expected Sequence 9.10 (SELECT ITEM, Text Attribute – Foreground and Background Colour)

See ETSI TS 102 384 [26] in clause 27.22.4.9.9.10.4.2, Expected Sequence 9.10.

27.22.4.9.9.10.5 Test requirement

The ME shall operate in the manner defined in expected sequence 9.10.

##### 27.22.4.9.10 SELECT ITEM (UCS2 display in Cyrillic)

27.22.4.9.10.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.10.2 Conformance requirement

The ME shall support the Proactive UICC: Select Item facility as defined in the following technical specifications:

- TS 31.111 [15] clause 5, clause 6.4.9, clause 6.6.8, clause 6.8, clause 8.6, clause 8.7, clause 8.2, clause 8.9, clause 9.4 and clause 10.

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

27.22.4.9.10.3 Test purpose

To verify that the ME correctly presents the set of items in UCS2 coding contained in the SELECT ITEM proactive UICC command, and returns a TERMINAL RESPONSE command to the UICC with the identifier of the item chosen.

To verify that the ME allows a SELECT ITEM proactive UICC command within the maximum 255 byte BER-TLV boundary.

To verify that the ME returns a TERMINAL RESPONSE with "Proactive UICC application session terminated by the user", if the user has indicated the need to end the proactive UICC session.

To verify that the ME returns a TERMINAL RESPONSE with "Backwards move in the proactive UICC application session requested by the user", if the user has indicated the need to go backwards in the proactive UICC application session.

27.22.4.9.10.4 Method of test

27.22.4.9.10.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.10.4.2 Procedure

Expected Sequence 10.1 (SELECT ITEM with UCS2 in Cyrillic characters, 0x80 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.10.4.2, Expected Sequence 10.1.

Expected Sequence 10.2 (SELECT ITEM with UCS2 in Cyrillic characters, 0x81 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.10.4.2, Expected Sequence 10.2.

Expected Sequence 10.3 (SELECT ITEM with UCS2 in Cyrillic characters, 0x82 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.10.4.2, Expected Sequence 10.3.

27.22.4.9.10.5 Test requirement

The ME shall operate in the manner defined in expected sequences 10.1 to 10.3.

##### 27.22.4.9.11 SELECT ITEM (UCS2 display in Chinese)

27.22.4.9.11.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.11.2 Conformance requirement

The ME shall support the Proactive UICC: Select Item facility as defined in the following technical specifications:

- TS 31.111 [15] clause 5, clause 6.4.9, clause 6.6.8, clause 6.8, clause 8.6, clause 8.7, clause 8.2, clause 8.9, clause 9.4 and clause 10.

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

27.22.4.9.11.3 Test purpose

To verify that the ME correctly presents the set of items in UCS2 coding contained in the SELECT ITEM proactive UICC command, and returns a TERMINAL RESPONSE command to the UICC with the identifier of the item chosen.

To verify that the ME allows a SELECT ITEM proactive UICC command within the maximum 255 byte BER-TLV boundary.

To verify that the ME returns a TERMINAL RESPONSE with "Proactive UICC application session terminated by the user", if the user has indicated the need to end the proactive UICC session.

To verify that the ME returns a TERMINAL RESPONSE with "Backwards move in the proactive UICC application session requested by the user", if the user has indicated the need to go backwards in the proactive UICC application session.

27.22.4.9.11.4 Method of test

27.22.4.9.11.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.11.4.2 Procedure

Expected Sequence 11.1 (SELECT ITEM with UCS2 in Chinese characters, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.11.4.2, Expected Sequence 11.1.

27.22.4.9.11.5 Test requirement

The ME shall operate in the manner defined in expected sequence 11.1.

##### 27.22.4.9.12 SELECT ITEM (UCS2 display in Katakana)

27.22.4.9.12.1 Definition and applicability

See clause 3.2.2.

27.22.4.9.12.2 Conformance requirement

The ME shall support the Proactive UICC: Select Item facility as defined in the following technical specifications:

- TS 31.111 [15] clause 5, clause 6.4.9, clause 6.6.8, clause 6.8, clause 8.6, clause 8.7, clause 8.2, clause 8.9, clause 9.4 and clause 10.

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

27.22.4.9.12.3 Test purpose

To verify that the ME correctly presents the set of items in UCS2 coding contained in the SELECT ITEM proactive UICC command, and returns a TERMINAL RESPONSE command to the UICC with the identifier of the item chosen.

To verify that the ME allows a SELECT ITEM proactive UICC command within the maximum 255 byte BER-TLV boundary.

To verify that the ME returns a TERMINAL RESPONSE with "Proactive UICC application session terminated by the user", if the user has indicated the need to end the proactive UICC session.

To verify that the ME returns a TERMINAL RESPONSE with "Backwards move in the proactive UICC application session requested by the user", if the user has indicated the need to go backwards in the proactive UICC application session.

27.22.4.9.12.4 Method of test

27.22.4.9.12.4.1 Initial conditions

The ME is connected to the USIM Simulator.

The elementary files are coded as Toolkit default.

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

27.22.4.9.12.4.2 Procedure

Expected Sequence 12.1 (SELECT ITEM with UCS2 in Katakana characters, 0x80 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.12.4.2, Expected Sequence 12.1.

Expected Sequence 12.2 (SELECT ITEM with UCS2 - Katakana characters, 0x81 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.12.4.2, Expected Sequence 12.2.

Expected Sequence 12.3 (SELECT ITEM with UCS2 - Katakana characters, 0x82 UCS2 coding, successful)

See ETSI TS 102 384 [26] in clause 27.22.4.9.12.4.2, Expected Sequence 12.3.

27.22.4.9.12.5 Test requirement

The ME shall operate in the manner defined in expected sequences 12.1 to 12.3.