Source:	T3
Title:	Change Request to USIM test specifications (TS 31.122)
Document for:	Approval

This document contains several change requests as follows:

T3 Doc	Spec	CR	Rel	Cat	Subject
T3-020116	31.122	005	99	F	Removal of an invalid transfer protocol test case
T3-020117	31.122	006	99	F	Corrections

CR-Form-v3

CHANGE REQUEST

⌘ **31.122** CR **005** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM **X** ME/UE **X** Radio Access Network ☐ Core Network ☐

Title:	⌘	Removal of an invalid transfer protocol test case
Source:	⌘	T3
Work item code: ⌘	TEI	**Date:** ⌘ 24/01/02
Category:	⌘ **F**	**Release:** ⌘ R99

Use one of the following categories: *F (correction)* *A (corresponds to a correction in an earlier release)* *B (Addition of feature),* *C (Functional modification of feature)* *D (Editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.	*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *REL-4 (Release 4)* *REL-5 (Release 5)*

Reason for change:	⌘	The test case in 6.4.3.1.4.4 h) is not executable with an ISO/IEC conformance implementation of the transport protocol T=0. This test case would require a timeout after which the UICC shall send a response in case of an "unfinished" command. Such a timeout is not defined in ISO/IEC nor in the TS 102 221 / 3GPP TS 31.102. Add additional test procedures for Conformance Requirement 3
Summary of change: ⌘		The test case in 6.4.3.1.4.4 h) is an invalid test case and has been deleted from the specification. The test case in 6.4.3.1.4.4 g) is only used in preparation for 6.4.3.1.4.4 h), therefore it is no longer required and has also been deleted. New test steps from 6.4.3.1.4.4 g) to 6.4.3.1.4.4 i) have been added to fulfill the conformance requirement 3.
Consequences if not approved:	⌘	The current version of the test specification is not in line with ISO/IEC. If tests and test tools anyhow implementing this test case, the timing behaviour is nowhere specified. This will result in different interpretations and implementations of this test case.

Clauses affected:	⌘	6.4.3.1.4.4 g), 6.4.3.1.4.4 h), 6.4.3.1.4.4 i)

Other specs Affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications	

Other comments:	⌘	

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

[...]

6.4.3.1.4   Case 4

6.4.3.1.4.1   Definition and applicability

It shall be mandatory for all cards complying with TS 102.221 [**Error! Bookmark not defined.**] to support all functions described therein.

6.4.3.1.4.2   Conformance requirement

CR1   On receipt of the command header, if the UICC:

a) returns a procedure byte, the Transport Layer of the Terminal shall send the data portion of the conditional body of the C-APDU to the UICC under the control of procedure bytes returned by the UICC;

b) returns status, the Transport Layer of the Terminal shall discontinue processing of the command.

CR2   If processing was not discontinued in CR1(b), following receipt of the conditional body of the C-APDU, the UICC:

a) under normal processing, shall return procedure bytes '61xx' to the Transport Layer of the Terminal requesting the Transport Layer of the Terminal to issue a GET RESPONSE command to retrieve the data from the UICC;

b) under abnormal processing, shall return status only to the Transport Layer of the Terminal.

CR3   On receipt of the procedure bytes or status returned in CR2, if the UICC:

a) returned '61xx' procedure bytes as in CR2(a), the Transport Layer of the Terminal shall send a GET RESPONSE command header to the UICC with P3 set to a value less than or equal to the value contained in the 'xx' byte of '61xx' procedure bytes;

b) returned status as in CR2(b) that indicates a warning ('62xx' or '63xx'), or which is application related ('9xxx' but not '9000'), the Transport Layer of the Terminal shall send a GET RESPONSE command with Le = '00';

c) returned status as in CR2(b) other than that described in CR3(b), the Transport Layer of the Terminal shall discontinue processing of the command.

CR4   If processing was not discontinued in CR3(c), the GET RESPONSE command shall be processed according to the rules for case 2 commands.

Reference: TS 102.221 [**Error! Bookmark not defined.**], subclause 7.3.1.1.4.

Test Group Reference (TGR): TGR_USIM_TP102.221_TP_TL_TAPDU0

Test Procedure Reference (TPR): TPR_USIM_TP102.221_TP_TL_TAPDU0_C4

6.4.3.1.4.3   Test purpose

To verify that the UICC conforms to the above requirements.

6.4.3.1.4.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command header to the UICC with P2 = '04' and a length of 2 bytes to the UICC to select EF$_{IMSI}$.

   The UICC shall return the procedure byte 'A4' to the ME simulator [CR1].

d) The ME simulator shall send the file ID of the EF$_{IMSI}$ to the UICC.

   The UICC shall return procedure bytes '61xx' to the ME simulator – where xx is the length of the FCP of the EF$_{IMSI}$ [CR2].

e) The ME simulator shall send a GET RESPONSE command header to the UICC with P3 set to length 'xx'.

   The UICC shall return the procedure byte 'C0' followed by the FCP of the EF$_{IMSI}$, ending with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR4].

f) The ME simulator shall send a SELECT command header to the UICC with an incorrect P1 parameter, P2 = '04' and a length of 2 bytes to the UICC to select EF$_{LOCI}$.

   The status condition returned by the UICC shall be SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

g) ~~The ME simulator shall send a SELECT command header to the UICC with P2 = '04' and a length of 2 bytes to the UICC to select EF$_{LOCI}$.~~

   ~~The UICC shall return the procedure byte 'A4' to the ME simulator [CR1].~~

h) ~~The ME simulator shall send the first byte of the file identifier of EF$_{LOCI}$ to the UICC.~~

   ~~The status condition returned by the UICC shall be SW1 = '67', SW2 = 'XX' - wrong length [CR3].~~

g) The ME simulator shall send a SELECT command to the UICC to select EF$_{IMSI}$.

   The UICC shall return procedure bytes '61xx' to the ME simulator – where 'xx' is the length of the FCP of the EF$_{IMSI}$ [CR2].

h) The ME simulator shall send a GET RESPONSE command to the UICC with P3 set to 'yy' where 'yy' is less than 'xx'.

   The UICC shall return the first 'yy' bytes of the FCP of the EF$_{IMSI}$.

   The status returned by the UICC shall be SW1 = '61', SW2 = 'zz' – where 'zz' is the remaining length of the FCP of the EF$_{IMSI}$ [CR3].

i) The ME simulator shall send a GET RESPONSE command to the UICC with P3 set to 'zz'.

   The UICC shall return the next 'zz' bytes of the FCP of the EF$_{IMSI}$.

   The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR3].

CR-Form-v3

CHANGE REQUEST

⌘ **31.122** CR **006** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

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Proposed change affects: ⌘ (U)SIM **X** ME/UE **X** Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to 31.122
Source:	⌘	T3
Work item code: ⌘		**Date:** ⌘ 24/01/02
Category:	⌘ **F**	**Release:** ⌘ R99

Use <u>one</u> of the following categories: **F** (correction) **A** (corresponds to a correction in an earlier release) **B** (Addition of feature), **C** (Functional modification of feature) **D** (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘	See table on page 2
Summary of change: ⌘		See table on page 2
Consequences if not approved:	⌘	Incorrect test specification

Clauses affected:	⌘	See table on page 2
Other specs Affected:	⌘ ☐ ☐ ☐	Other core specifications ⌘ Test specifications O&M Specifications
Other comments:	⌘	

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

Clause Affected	Reason for Change	Summary of Change
6.4.2.2, p), q)	Test mentions FCP, but no Select or Status is sent.	The response data in step q) is checked for the contents of EF$_{FPLMN}$, as specified in the Initial Conditions.
6.4.2.3.1.2, Definition and Applicability, Test Purpose, a)	TB3 is optional in the ATR	TB3 absent is considered as successful
6.4.2.3.4.1, e)	"The UICC shall return an ATR to reset the UICC" does not make sense.	The ME simulator resets the UICC.
6.4.2.3.4.1, l)	In order to read EF$_{IMSI}$, the PIN must be verified.	Before step l), the ME simulator sends a VERIFY PIN command with PIN to the UICC.
6.4.3.1.1, d) 6.4.3.1.2, f) 6.4.3.1.3, g) 6.4.3.1.4, f) 6.4.3.1.5.1, i), j), k), l) 6.4.3.2.1, d) 6.4.3.2.2, f) 6.4.3.2.3, f) 6.4.3.2.4, d)	3G TS 102 221 does not specify the status word to be returned in this situation. Note that test 6.7.2.1 step q) checks for either 6A86 or 6B00.	The status words checked for are 6A86 and 6B00.
6.4.3.1.5.1, e), f), g), k)	Hex '11' is used, while EF$_{LOCI}$ actually contains 11 (decimal) bytes.	'0B' (11 decimal) is used instead of '11' throughout.
6.5.2.2.2, f)	The reference to "step c)" should be to the Select command in step d).	In step f), response data from step d) is used.
6.5.1, c) 6.5.2.2.3, e), f), g), h), i), j), k), l), m), n)	The reference to "byte 5" should be changed to "bytes 5 and 6", as the record length is made up of both bytes.	Bytes 5 and 6 are used instead of just byte 5.
6.5.4.1, c), f)	Tag '83' is optional for an ADF, so the TLV may be absent..	The value is only checked if the TLV is present.
6.5.4.1, g) 6.5.4.2, b)	31.122 does not specify file IDs for all files in Table 8.2, subclause 8.4.2 of TS 102.221. File IDs for DF3, DF5, EF4, EF6 and EF7 are not specified.	Only the subset of files with specified file IDs are included in this test.
6.6.3, e)	"Step c)" should be step d), as this is the READ RECORD command.	Step d) is repeated instead of step c).
6.6.3, p)	Step c) checked that the Universal PIN is enabled.	The check is that PIN Application 1 is disabled, and the Universal PIN is enabled

	In the intervening steps, only PIN Application 1 has been disabled, so Universal PIN cannot now be disabled.	and its Usage Qualifier is set to '00'.
6.6.3, bb)	If steps f) to v) were carried out, step bb) will fail, because the Universal PIN was verified it step k) and its verification status remains unchanged by application selection.	The ME simulator resets the UICC before step w).
6.6.5, i) (multi-verification capable UICC)	If e.g. Read Record ABSOLUTE with record 1 is sent in this step, the record pointer will be undefined, and step k) will fail.	The ME simulator sends a Read Record command NEXT to ensure the record pointer is set.
6.6.5, v) (multi-verification capable UICC)	If e.g. Read Record ABSOLUTE with record 1 is sent in this step, the record pointer will be undefined, and step w) will fail.	The ME simulator sends a Read Record command NEXT to ensure the record pointer is set.
6.8.1.1, m)	A "SELECT command with P1 = '00' and with empty data field" must have P2 set to '0C' according to clause 11.1.1.2 of ETSI TS 102 221. There will therefore be no response data.	The ME simulator sends the SELECT command with P2 = '0C'. The check is that the SW is '90 00', and there is no response data.
6.8.1.7, Test Procedure 2, o)	'enhanced forward search from previous record' is not a valid mode for SEARCH RECORD. From looking at the purpose of the test, 'enhanced forward search from next record' would seem to be the intention.	'enhanced forward search from next record' is used instead.
6.8.1.15, n)	Step o) expects EF_{CCP2} to be deactivated. Step e) previously deactivated EF_{CCP2}, so it is already deactivated. Step n) (activating the file) is inconsistent with the expected results of step o) (that the file is deactivated).	Step n) is removed.
6.9.1.1, b)	Step c) expects GET RESPONSE to be successful after a STATUS command. This is invalid.	In step b), the ME simulator sends a Select by File ID command to select the MF.
6.10 & 7. 1 General	The tests require the security of files to be checked. For referenced security, the location of EF_{ARR} is only known when each file is selected.	When a file has been selected and the EF_{ARR} referenced has not already been read, the EF_{ARR} is read at the point.

6.4.2.2.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) EF$_{FPLMN}$ shall contain the data string: '55 AA 0F 00 F0 FF'.

Test procedure

a) Steps b) to h) shall be repeated for the all communication speeds supported by the UICC.

b) The ME simulator shall cold reset the UICC.

c) The ME simulator shall send a PPS-Request to the UICC to select the T = 0 protocol and the selected communication speed.

    The UICC shall send a valid PPS-Response [CR1].

d) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

e) The ME simulator shall send a VERIFY PIN with PIN to the UICC.

f) The ME simulator shall send a SELECT command to the UICC to select EF$_{FPLMN}$.

g) The ME simulator shall send a READ BINARY command to the UICC.

    The UICC shall send the data string '55 AA 0F 00 F0 FF' followed by SW1 = '90' and SW2 = '00' – normal ending of the command [CR2].

    The following shall be true of the response data:

    - *The interval between the leading edge of the start bits of two consecutive characters shall be at least 12 etus [CR3];*

    - *The value of the WWT shall not exceed $960 \times WI \times Fi/f$ [CR4];*

    - *The minimum interval between the leading edges of the start bits of two consecutive characters sent in opposite directions shall be at least 16 etus [CR5].*

h) The ME simulator shall send a SELECT command to the UICC to select EF$_{IMSI}$ at 16 etu after the UICC send the last character in g).

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR5].

i) The ME simulator shall cold reset the UICC.

j) The ME simulator shall send a PPS-Request to the UICC to select the T = 0 protocol and the selected communication speed.

k) The ME simulator shall request character repetition (i.e. transmits an error signal during the guard time) to the UICC for all character frames during the ATR.

    The UICC shall send the valid ATR with character repetition [CR11].

l) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

m) The ME simulator shall send a VERIFY PIN with PIN to the UICC.

n) The ME simulator shall send a SELECT command to the UICC to select EF$_{FPLMN}$.

o) The ME simulator shall send a READ BINARY command to the UICC with incorrect character parity for all character frames.

The UICC shall request character repetition (i.e. transmits an error signal during the guard time) for all character frames [CR11].

p) The ME simulator shall re-send a READ BINARY command to the UICC.

q) The ME simulator shall request character repetition for all character frames to the UICC.

The UICC shall send the data string '55 AA 0F 00 F0 FF' followed by SW1 = '90' and SW2 = '00' – normal ending of the command [CR11].

~~*The UICC shall send the correct FCP with character repetition [CR11].*~~

The following shall be true of the response data:

- *The error is indicated on the I/O-line, which is set to state L after $(10,5 \pm 0,2)$ etus after the leading edge of the start bit for the character, and the I/O line shall be in state L for a maximum of 2 etus and a minimum of 1 etu [CR12];*

- *The UICC as receiver detects a parity error within $11 \pm 0,2$ etus starting from the leading edge of the start bit. In a character just received, it shall set I/O to state L to indicate the error to the sender [CR13];*

- *When the UICC as transmitter detects an error, the character shall be sent again after a minimum delay of 2 etus [CR14].*

6.4.2.3.1.2 Character waiting integer

6.4.2.3.1.2.1 Definition and applicability

It shall be mandatory for all cards complying with TS 102.221 [**Error! Bookmark not defined.**] to support all functions described therein.

This test case only applies to a UICC which issues the interface character, TB3

6.4.2.3.1.2.2 Conformance requirement

CR1 CWI is used to calculate CWT and shall be in the range from 0 to 5. The value shall be set in bits b4 to b1 in TB3.

Reference: TS 102.221 [**Error! Bookmark not defined.**], subclause 7.2.3.1.2.

Test Group Reference (TGR): TGR_USIM_TP102.221_TP_DLL_TP1

Test Procedure Reference (TPR): TPR_USIM_TP102.221_TP_DLL_TP1_ TS_CWI

6.4.2.3.1.2.3 Test purpose

To verify that, if TB3 is present in the ATR, then the CWI, as coded in TB3, is in the range from 0 to 5.

6.4.2.3.1.2.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

    The UICC shall return an ATR containing byte TB3, where bits b1-b4 are in the range 0 to 5 [CR1].

    The UICC shall respond with an ATR. If TB3 is present, bits b1-b4 shall be in the range 0 to 5 [CR1].

6.4.2.3.4.1.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send an R-block to the UICC, of the format R(0), to request the UICC to re-send the last block.

    The UICC shall re-send the I-block, the response to the first SELECT command [CR1].

d) The ME simulator shall send an R-block to the UICC, of the format R(0), to request the UICC to re-send the last block.

    The UICC shall re-send the I-block, the response to the first SELECT command [CR1].

e) The ME simulator shall reset the UICC.

    The ME simulator shall send an R-block to the UICC, of the format R(0), to request the UICC to re-send the last block.

    The UICC shall return an ATR to reset the UICC [CR1].

f) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application, where the I-block has an invalid EDC.

    The UICC shall reject the command by sending an R-block response of the format R(0), with bits b1-b4 in the PCB-byte having a value of '1' – EDC and/or parity error [CR3].

g) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

h) The ME simulator shall send a SELECT command to the UICC to select EF$_{IMSI}$.

i) The ME simulator shall send an R-block to the UICC, of the format R(0), to request the UICC to re-send the last block.

    The UICC shall re-send the I-block, the response to the SELECT command in h) [CR4].

j) The ME simulator shall send an R-block to the UICC, of the format R(0), to request the UICC to re-send the last block.

    The UICC shall re-send the I-block, the response to the SELECT command in h) [CR4].

k) The ME simulator shall send a S(RESYNCH, request) to the UICC.

    The UICC shall return a S(RESYNCH, response) [CR4].

l) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

m~l~)The ME simulator shall send a READ BINARY command to the UICC.

The UICC shall return the content of EF~IMSI~ [CR4].

6.4.3.1.1.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a VERIFY PIN command with parameter P2 indicating PIN and with an empty data field to the UICC.

The status condition returned by the UICC shall be SW1 = '63', SW2 = 'CX' - unsuccessful PIN verification, X attempts left [CR1, CR3].

d) The ME simulator shall send a VERIFY PIN command with an incorrect parameter P2 and with an empty data field to the UICC.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or </u>SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR2].

6.4.3.1.2.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) EF~LOCI~ shall contain the data string: 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00'.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF~LOCI~.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send a READ BINARY command using a length of 11 bytes to the UICC.

The UICC shall return the procedure byte 'B0' followed by the data string 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00', ending with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

f) The ME simulator shall send a READ BINARY command with an incorrect P2 parameter and a length of 11 bytes to the UICC.

The status condition returned by the UICC shall be SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR2].

6.4.3.1.3.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF_{LOCI}.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send an UPDATE BINARY command header using a length of 11 bytes to the UICC.

The UICC shall return the procedure byte 'D6' to the ME simulator [CR1].

f) The ME simulator shall send the data string '11 22 33 44 55 66 77 88 99 00 11' to the UICC.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

g) The ME simulator shall send an UPDATE BINARY command header with an incorrect P2 parameter and a length of 11 bytes to the UICC.

The status condition returned by the UICC shall be SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR3].

h) The ME simulator shall send an UPDATE BINARY command with the data 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00' to the UICC.

6.4.3.1.4.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command header to the UICC with P2 = '04' and a length of 2 bytes to the UICC to select EF_{IMSI}.

The UICC shall return the procedure byte 'A4' to the ME simulator [CR1].

d) The ME simulator shall send the file ID of the EF_{IMSI} to the UICC.

The UICC shall return procedure bytes '61xx' to the ME simulator – where xx is the length of the FCP of the EF_{IMSI} [CR2].

e) The ME simulator shall send a GET RESPONSE command header to the UICC with P3 set to length 'xx'.

The UICC shall return the procedure byte 'C0' followed by the FCP of the EF$_{IMSI}$, ending with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR4].

f) The ME simulator shall send a SELECT command header to the UICC with an incorrect P1 parameter, P2 = '04' and a length of 2 bytes to the UICC to select EF$_{LOCI}$.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or </u>SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

g) The ME simulator shall send a SELECT command header to the UICC with P2 = '04' and a length of 2 bytes to the UICC to select EF$_{LOCI}$.

The UICC shall return the procedure byte 'A4' to the ME simulator [CR1].

h) The ME simulator shall send the first byte of the file identifier of EF$_{LOCI}$ to the UICC.

The status condition returned by the UICC shall be SW1 = '67', SW2 = 'XX' - wrong length [CR3].

6.4.3.1.5.1.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) EF$_{LOCI}$ shall contain the data string: 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00'.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF$_{LOCI}$.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send a READ BINARY command header to the UICC with the P3 parameter set to '00'.

The UICC shall return the procedure bytes '6C ~~11~~0B' to the ME simulator [CR1].

f) The ME simulator shall send a READ BINARY command header to the UICC with the P3 parameter set to '15'.

The UICC shall return the procedure bytes '6C ~~11~~0B' to the ME simulator [CR1].

g) The ME simulator shall send a READ BINARY command header to the UICC with the P3 parameter set to '~~11~~0B'.

The UICC shall return the procedure byte 'B0' followed by the data string 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00', ending with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR3].

h) The ME simulator shall send a READ BINARY command header to the UICC with the P3 parameter set to '05'.

The UICC shall return the procedure byte 'B0' followed by the data string 'A1 A2 A3 A4 A5', ending with the procedure bytes '61xx' [CR5].

i) The ME simulator shall send a READ BINARY command header to the UICC with an incorrect P2 parameter and the P3 parameter set to '00'.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR2].

j) The ME simulator shall send a READ BINARY command header to the UICC with an incorrect P2 parameter and the P3 parameter set to '15'.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR2].

k) The ME simulator shall send a READ BINARY command header to the UICC with an incorrect P2 parameter and the P3 parameter set to '~~11~~'<u>0B</u>'.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR5].

l) The ME simulator shall send a READ BINARY command header to the UICC with an incorrect P2 parameter and the P3 parameter set to '05'.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR6].

6.4.3.2.1.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a VERIFY PIN command with parameter P2 indicating PIN and with an empty data field to the UICC.

The status condition returned by the UICC shall be SW1 = '63', SW2 = 'CX' - unsuccessful PIN verification, X attempts left [CR1].

d) The ME simulator shall send a VERIFY PIN command with an incorrect parameter P2 and with an empty data field to the UICC.

The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

6.4.3.2.2.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) EF$_{LOCI}$ shall contain the data string: 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00'.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF$_{LOCI}$.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send a READ BINARY command using a length of 11 bytes to the UICC.

   The UICC shall return the data string 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00', ending with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

f) The ME simulator shall send a READ BINARY command with an incorrect P2 parameter and a length of 11 bytes to the UICC.

   The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

6.4.3.2.3.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF$_{LOCI}$.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send an UPDATE BINARY command with the data string '11 22 33 44 55 66 77 88 99 00 11' to the UICC.

   The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

f) The ME simulator shall send an UPDATE BINARY command header with an incorrect P2 parameter and the data string '11 22 33 44 55 66 77 88 99 00 11' to the UICC.

   The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

g) The ME simulator shall send an UPDATE BINARY command with the data 'A1 A2 A3 A4 A5 A6 A7 A8 A9 00 00' to the UICC.

6.4.3.2.4.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

c) The ME simulator shall send a SELECT command with P2 = '04' to the UICC to select EF$_{IMSI}$.

    The UICC shall return the FCP of the EF$_{IMSI}$ together with the status condition SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

d) The ME simulator shall send a SELECT command with incorrect P1 parameter and P2 = '04' to the UICC to select EF$_{LOCI}$

    The status condition returned by the UICC shall be <u>SW1 = '6B', SW2 = '00' - wrong parameter(s) P1-P2, or</u> SW1 = '6A', SW2 = '86' - incorrect parameters P1-P2 [CR1].

6.5.1.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select EF$_{DIR}$.

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR1].

c) The ME simulator shall send a READ RECORD command to read record 1 of the EF$_{DIR}$. The length used shall be that of ~~byte 5~~<u>bytes 5 and 6</u> in TLV DO with tag '82' of the response data in step b).

d) The ME simulator shall send a SELECT command to the UICC to select and activate the ADF stated in EF$_{DIR}$ of record 1.

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2].

e) The ME simulator shall reset the UICC.

f) The ME simulator shall send a SELECT command to the UICC to select EF$_{PL}$.

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR3].

g) The ME simulator shall send a SELECT command to the UICC to select EF$_{ICCID}$.

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR4].

h) The ME simulator shall send a SELECT command to the UICC to select DF$_{TELECOM}$.

    The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command, if the UICC supports DF$_{TELECOM}$, otherwise the status condition returned by the UICC shall be SW1 = '6A', SW2 = '82' – file ID not found [CR5].

6.5.2.2.2.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) The records in EF$_{FDN}$ shall contain the following data for the first 10 bytes:

1st record 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0'
2nd record 'B0 B1 B2 A0 A1 A2 A0 A1 A2 B0'
3rd record 'B0 B1 B2 A0 A1 A2 B0 B1 B2 A0'
4th record 'A0 A1 A2 B0 B1 B2 B0 B1 B2 B0'

3) The data for the remainder of these four records and for all other records (if any) shall be 'FF'.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

c) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

d) The ME simulator shall send a SELECT command to the UICC to select EF$_{FDN}$.

   Following shall be true for the SELECT response data:

   - *the value of TLV DO with tag '80' shall be equal to product of byte 6 and byte 7 in TLV DO with tag '82' [CR4].*

e) The ME simulator shall send a READ RECORD command using ABSOLUTE mode with record 1 and Le = '00' to the UICC.

   The data returned by the UICC shall be that of the first record [CR2].

   The length of the data returned shall be that of byte 6 in TLV DO with tag '82' of the response data in step d) [CR3].

   The status condition returned by the UICC shall be SW1='90', SW2='00' - normal ending of the command.

f) The ME simulator shall repeat sending a READ RECORD command using NEXT mode with Le = '00' to the UICC until it reaches the last record whose record number is equal to the byte 7 in TLV DO with tag '82' of the response data in step ed).

   The length of the data returned in response to every READ RECORD command shall be that of byte 6 in TLV DO with tag '82' of the response data in step de) [CR1, CR3].

   The status condition returned by the UICC in response to every READ RECORD command shall be SW1='90', SW2='00' - normal ending of the command.

g) The ME simulator shall send a READ RECORD command using NEXT mode with Le = '00' to the UICC.

   The status condition returned by the UICC shall be SW1='6A', SW2='83' – record not found [CR4].

NOTE: Step g) confirms that the number of records indicated in byte 7 in the TLV DO with tag '82' of the response data is correct.

6.5.2.2.3.4 Method of test

NOTE: When EF_{ICI} is not supported by the UICC, any supported cyclic EF in ADF_{USIM} may be chosen.

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) EF_{ICI} shall have at least 4 records.

3) The records in EF_{ICI} shall contain the following data:

```
1st record    '01' for all bytes
2nd record    '02' for all bytes
3rd record    '03' for all bytes
Xth record    '0X' for all bytes
```

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

c) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

d) The ME simulator shall send a SELECT command to the UICC to select EF_{ICI}.

e) The ME simulator shall send a READ RECORD command using NEXT mode to the UICC. The length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step d).

   The response data shall be the data in the first record [CR1].

f) The ME simulator shall send a READ RECORD command using PREVIOUS mode to the UICC. The record length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step b).

   The response data shall be the data in the last record [CR1, CR4].

g) The ME simulator shall send a READ RECORD command using NEXT mode to the UICC. The record length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step b).

   The response data shall be the data in the first record [CR2, CR3, CR4, CR7].

h) The ME simulator shall send a READ RECORD command using PREVIOUS mode to the UICC. The record length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step b).

   The response data shall be the data in the last record [CR4, CR7].

i) The ME simulator shall send an UPDATE RECORD command using PREVIOUS mode to the UICC with 'FF' for all the bytes. The record length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step b) [CR5].

j) The ME simulator shall send a READ RECORD command using ABSOLUTE mode with record 1 to the UICC. The length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step d).

   The response data shall be the new data that has been updated in step j) [CR5].

k) The ME simulator shall send a READ RECORD command using PREVIOUS mode to the UICC. The length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO with tag '82' of the response data in step d).

The response data shall be the previous data in the second last record [CR5].

l)   The ME simulator shall send an UPDATE RECORD command using ABSOLUTE mode with
     record 1 to the UICC with 'FF' for all the bytes. The length used shall be that ~~of byte 5~~of bytes 5
     and 6 in TLV DO with tag '82' of the response data in step d).

     *The status condition returned by the UICC shall be SW1 = '69', SW2 = '81' – command
     incompatible with file structure [CR6].*

m) The ME simulator shall send an UPDATE RECORD command using CURRENT mode to the
     UICC with 'FF' for all the bytes. The length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV
     DO with tag '82' of the response data in step d).

     *The status condition returned by the UICC shall be SW1 = '69', SW2 = '81' – command
     incompatible with file structure [CR6].*

n)   The ME simulator shall send an UPDATE RECORD command using NEXT mode to the UICC
     with 'FF' for all the bytes. The length used shall be that ~~of byte 5~~of bytes 5 and 6 in TLV DO
     with tag '82' of the response data in step d).

     *The status condition returned by the UICC shall be SW1 = '69', SW2 = '81' – command
     incompatible with file structure [CR6].*

6.5.4.1.4   Method of test

Initial conditions

1)   The UICC shall be connected to a ME simulator.

Test procedure

a)   The ME simulator shall reset the UICC.

b)   The ME simulator shall send a SELECT command to the UICC to select and activate USIM
     application.

c)   The ME simulator shall send a STATUS command to the UICC.

     *If a TLV DO with tag '83'is present, then the response data shall indicate that ADF$_{USIM}$ is the
     currently selected directory [CR1].*

d)   The ME simulator shall send a READ BINARY command using a length of 1 byte to the UICC.

     *The status condition returned by the UICC shall be SW1 = '69', SW2 = '86' – command not
     allowed (no EF selected) [CR2].*

e)   The ME simulator shall send a SELECT command to the UICC to select EF$_{AD}$.

     *TLV DO with tag '83' of the response data shall indicate that EF$_{AD}$ is the currently selected EF
     [CR3].*

f)   The ME simulator shall send a STATUS command to the UICC.

     *If a TLV DO with tag '83' is present, then~~of~~ the response data shall indicate that ADF$_{USIM}$ is the
     currently selected directory [CR3].*

g)   Step h) shall be carried out for each line in Table 8.1, subclause 8.4.1 of TS 102.221 [**Error!
     Bookmark not defined.**] for which a file is defined in Table 3.

h)   Step i) shall be carried out for each one of the 'valid selections' in that line of the table.

i)   Steps j) and then k) shall be carried out in turn.

j) The ME simulator shall send a SELECT command to the UICC to select the 'last selected file'.

k) The ME simulator shall send a SELECT command to the UICC to select the 'valid selection'.

   The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR6, CR7].

l) The following file IDs shall be used to represent the IDs in the table:

Table 3: Actual File Selection

Table	Actual
MF	MF
ADF1	ADF$_{USIM}$
DF1	DF$_{TELECOM}$
DF4	DF$_{PHONEBOOK}$
EF1	EF$_{ICCID}$
EF2	EF$_{ADN}$
EF3	EF$_{AD}$
EF5	EF$_{PBR}$

NOTE 1:   When EF$_{ADN}$ is not supported by the UICC, any supported EF in DF$_{TELECOM}$ may be chosen.

NOTE 2:   When EF$_{PBR}$ is not supported by the UICC, any supported EF in DF$_{PHONEBOOK}$ may be chosen.

6.5.4.2.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) Step c) shall be carried out for each line in Table 8.2, subclause 8.4.2 of TS 102.221 [**Error! Bookmark not defined.**] for which a file is defined in Table 3.

c) Step d) shall be carried out for each one of the 'example selections' in that line of the table.

d) Steps e) and then f) shall be carried out in turn.

e) The ME simulator shall send a SELECT command to the UICC to select the 'last selected DF'.

f) The ME simulator shall send a SELECT command to the UICC to select the 'example selections'.

   The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2].

6.6.3.4   Method of test

NOTE: The following test procedures shall be applicable only to a multi-verification capable UICC.

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) SE01 shall be active.

Test procedures

For a multi-verification capable UICC

a) The ME simulator shall reset the UICC.

c) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application [CR1].

The following shall be true of the response data:

- *TLV DO with tag '90' (PIN Status) under TLV DO with tag 'C6' shall indicate that the Application PINs and the Universal PIN are enabled;*

- *TLV DO with tag '8B' shall be as follows:*

EF$_{ARR}$ FID	SE ID1	Record No X	SE ID2	Record No Y

where   -   SE ID1 and SE ID2 can be either 00 or 01, but SE ID1 shall not be the same as SE ID2.

- *Record No X and Y are the record number of the EF$_{ARR}$.*

d) The ME simulator shall send a READ RECORD command to read the record number X of EFARR [CR4].

If SE ID1 is 00, either one of the following shall be true of the response data:

- *The TLV_DO with tag '83' in the SC_DO shall be '11';*

- *The SC_DO shall be '90 00'.*

If SE ID1 is 01, either one of the following shall be true of the response data:

- *The TLV_DO with tag '83' in the SC_DO shall be '01';*

- *The SC_DO shall be '90 00'.*

e) Step ~~e~~d) shall be repeated for record number Y for SE ID2 [CR4].

f) If the TLV_DO with tag 83 is '01' for SE01, steps f) to v shall be carried out.

g) The ME simulator shall send a SELECT command to the UICC to select EFICCID.

h) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR6].

i) The ME simulator shall send a SELECT command to the UICC to select EFIMSI under ADFUSIM.

j) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied.

k) The ME simulator shall send a VERIFY PIN command using Universal PIN to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR4].

l) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied.

m) The ME simulator shall send a VERIFY PIN command using PIN Application 1 to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR4].

n) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR4, CR6].

o) The ME simulator shall send a DISABLE PIN command to disable the PIN Application 1 to the UICC.

p) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

The following shall be true of the response data:

- *TLV DO with tag '90' (PIN Status) under TLV DO with tag 'C6' shall indicate that <u>the PIN Application 1 is disabled, and the Universal PIN is enabled and its Usage Qualifier is set to '00'</u>~~the Application PINs and the Universal Pin are disabled~~.*

q) The ME simulator shall send a SELECT command to the UICC to select EFICCID.

r) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR6].

s) The ME simulator shall send a SELECT command to the UICC to select EFIMSI under ADFUSIM.

t) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR4, CR6].

u) The ME simulator shall send an ENABLE PIN command to enable the PIN Application 1 to the UICC.

v) The ME simulator shall send a DISABLE PIN command to disable and indicate the Universal PIN as a replacement of the PIN Application 1 to the UICC [CR5].

w) The ME simulator shall reset the UICC.

x~~w~~) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

The following shall be true of the response data:

- *TLV DO with tag '90' (PIN Status) under TLV DO with tag 'C6' shall indicate that the PIN Application 1 is disabled and the Universal Pin is enabled [CR2, CR3].*

y~~x~~) If the TLV_DO with tag 83 is '11' for SE00, steps z~~x~~ to mm~~ll~~) shall be carried out.

z~~y~~) The ME simulator shall send a SELECT command to the UICC to select EFICCID.

aa~~z~~) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR6].

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bbaa) The ME simulator shall send a SELECT command to the UICC to select EFIMSI under ADFUSIM.

ccbb) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied.

ddee) The ME simulator shall send a VERIFY PIN command using PIN Application 1 to the UICC.

The response data returned by the UICC shall indicate an error.

eedd) The ME simulator shall send a VERIFY PIN command using Universal PIN to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2].

ffee) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2, CR6].

ggff) The ME simulator shall send a DISABLE PIN command to disable the Universal PIN to the UICC.

hhgg) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

The following shall be true of the response data:

- *TLV DO with tag '90' (PIN Status) under TLV DO with tag 'C6' shall indicate that the PIN Application 1 and the Universal Pin are disabled.*

iihh) The ME simulator shall send a SELECT command to the UICC to select EFICCID.

jjii) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR6].

kkjj) The ME simulator shall send a SELECT command to the UICC to select EFIMSI under ADFUSIM.

llkk) The ME simulator shall send a READ BINARY command to the UICC.

The response data returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2, CR6].

mmll) The ME simulator shall send an ENABLE PIN command to enable the Universal PIN to the UICC.

nnmm) The ME simulator shall send an ENABLE PIN command to enable the PIN Application 1 to the UICC

6.6.5.4   Method of test

NOTE: When EF$_{FDN}$ is not supported by the UICC, any supported linear EF in ADF$_{USIM}$ may be chosen.

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) The records in EF$_{FDN}$ shall contain the following data for the first 10 bytes:

1st record 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0'
2nd record 'B0 B1 B2 A0 A1 A2 A0 A1 A2 B0'
3rd record 'B0 B1 B2 A0 A1 A2 B0 B1 B2 A0'
4th record 'A0 A1 A2 B0 B1 B2 B0 B1 B2 B0'

3) The data for the remainder of these four records and for all other records (if any) shall be 'FF'.

For a multi-verification capable UICC

4) SE01 shall be active.

Test procedure

For a multi-verification capable UICC

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

The response data shall indicate the PS Template DO with tag 'C6' [CR5].

The PS Template DO with tag 'C6' shall contain for the Universal PIN the TLV DO with tag '95' indicating the usage qualifier [CR6].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

c) The ME simulator shall send a STATUS command to the UICC.

The response data shall indicate the PS Template DO with tag 'C6' [CR5].

The PS Template DO with tag 'C6' shall contain for the Universal PIN the TLV DO with tag '95' indicating the usage qualifier [CR6].

d) The ME simulator shall send a SELECT command to the UICC to select EF$_{FDN}$.

The response data shall not contain the PS Template DO with tag 'C6' [CR5].

e) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied [CR2].

f) The ME simulator shall gain PIN Application 1 security access.

g) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF$_{FDN}$.

The data string returned shall be 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0'.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

h) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'B0' for all bytes to the UICC to update the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' - security status not satisfied [CR3].

i) The ME simulator shall send a READ RECORD command <u>using NEXT mode</u> to the UICC to read the first record in EF_{FDN}.

The data string returned shall be 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0'.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

j) The ME simulator shall gain the second PIN Application 2 security access.

k) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'B1' for all bytes to the UICC to update the first record in EF_{FDN}.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR3].

l) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF_{FDN}.

The data string returned shall be 'B1' for all bytes.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

m) The ME simulator shall send a SELECT command to the UICC to select MF.

n) The ME simulator shall send a SELECT command to the UICC to select EF_{ICCID}.

o) The ME simulator shall send a READ BINARY command to the UICC to read the byte in the EF_{ICCID}.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR1].

p) The ME simulator shall send an UPDATE BINARY command to the UICC to update the byte in EF_{ICCID}.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' - security status not satisfied [CR4].

q) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

r) The ME simulator shall send a DISABLE PIN command to disable and indicate the Universal PIN as a replacement of the PIN Application 1 to the UICC.

s) The ME simulator shall send a SELECT command to the UICC to select EF_{FDN}.

t) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF_{FDN}.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied [CR2].

u) The ME simulator shall gain Universal PIN security access.

v) The ME simulator shall send a READ RECORD command <u>using NEXT mode</u> to the UICC to read the first record in EF_{FDN}.

The data string returned shall be 'B1' for all bytes.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

w) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'B2' for all bytes to the UICC to update the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' - security status not satisfied [CR3].

x) The ME simulator shall gain the second PIN Application 2 security access.

y) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'B3' for all bytes to the UICC to update the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR3].

z) The ME simulator shall send an ENABLE PIN command to enable PIN Application 1 to the UICC.

aa) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

bb) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' – security status not satisfied [CR2].

cc) The ME simulator shall gain PIN Application 1 security access.

dd) The ME simulator shall send a READ RECORD command to the UICC to read the first record in EF$_{FDN}$.

The data string returned shall be 'B3' for all bytes.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR2].

ee) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'B4' for all bytes to the UICC to update the first record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' - security status not satisfied [CR3].

ff) The ME simulator shall gain the second PIN Application 2 security access.

gg) The ME simulator shall send an UPDATE RECORD command using CURRENT mode with data string 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0' to the UICC to update record in EF$_{FDN}$.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR3].

6.8.1.1.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select DF$_{TELECOM}$.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2a].

The FCP shall contain the following tags [CR3]:

- *Tag '82' (File Descriptor)*

  The first byte shall be '38' or '78' (indicating a DF or ADF);

- *Tag '83' (File Identifier)*

  The value shall be '7F 10' (indicating DF$_{TELECOM}$);

- *Tag 'A5' (Proprietary information)*

  It shall contain tag '80' (UICC characteristics);

- *Tag '8A' (Life Cycle Status Integer);*

- *Tag 'C6' (PIN Status Template DO)*

  It shall contain tag '90' (PS_DO).

The FCP shall contain exactly one of the following tags:

- *Tag '8C' (Compact format);*

- *Tag 'AB' (Expanded format);*

- *Tag '8B' (Referenced to Expanded Format).*

*The TLV DOs with the above Tags shall be provided in FCP in order given in the Table 11.3 of subclause 11.1.1.3 of the TS 102.221 [**Error! Bookmark not defined.**] [CR10].*

c) The ME simulator shall send a SELECT command to the UICC to select the MF.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2a].

The FCP shall contain the following tags [CR3]:

- *Tag '82' (File Descriptor)*

  The first byte shall be '38' or '78' (indicating a DF or ADF);

- *Tag '83' (File Identifier)*

  The value shall be '3F 00' (indicating MF);

- *Tag 'A5' (Proprietary information)*

  It shall contain tag '80' (UICC characteristics);

- *Tag '8A' (Life Cycle Status Integer);*

- *Tag 'C6' (PIN Status Template DO)*

  It shall contain tag '90' (PS_DO).

The FCP shall contain exactly one of the following tags:

- *Tag '8C' (Compact format);*

- *Tag 'AB' (Expanded format);*

- *Tag '8B' (Referenced to Expanded Format).*

*The TLV DOs with the above Tags shall be provided in FCP in order given in the Table 11.3 of subclause 11.1.1.3 of the TS 102.221 [**Error! Bookmark not defined.**] [CR10].*

d) The ME simulator shall send a SELECT command to the UICC to select EF_{DIR}.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2a].

The FCP shall contain the following tags [CR5]:

- *Tag '82' (File Descriptor)*

    The first byte shall be '02' or '42' (indicating a linear fixed EF);

    The length shall be '05' (i.e. containing record length etc);

- *Tag '83' (File Identifier)*

    The value shall be '2F 00' (indicating EF_{DIR});

- *Tag 'A5' (Proprietary information)*

    It shall contain tag '80' (UICC characteristics);

- *Tag '8A' (Life Cycle Status Integer);*

- *Tag '80' (File size).*

The FCP shall contain exactly one of the following tags:

- *Tag '8C' (Compact format);*

- *Tag 'AB' (Expanded format);*

- *Tag '8B' (Referenced to Expanded Format).*

*The TLV DOs with the above Tags shall be provided in FCP in order given in the Table 11.4 of subclause 11.1.1.3 of the TS 102.221 [**Error! Bookmark not defined.**] [CR10].*

e) The ME simulator shall send a READ RECORD command using CURRENT mode to the UICC.

The status returned by the UICC shall be SW1 = '6A', SW2 = '83' - Record not found [CR6].

f) The ME simulator shall send a SELECT command with P2 = '0C' to the UICC to select the MF.

The response from the UICC shall be only SW1 = '90', SW2 = '00' – normal ending of the command [CR7].

g) The ME simulator shall send a SELECT command to the UICC to select the EF_{ARR} under DF_{TELECOM} by path selection

The response from the UICC shall be only SW1 = '90', SW2 = '00' – normal ending of the command.

The TLV DO with Tag '83' in the FCP shall indicate the current EF is EF_{ARR} [CR2c].

h) The ME simulator shall send a SELECT command to the UICC to select the parent DF.

The response from the UICC shall be only SW1 = '90', SW2 = '00' – normal ending of the command.

The TLV DO with Tag '83' in the FCP shall indicate the current DF is MF [CR2d].

i) The ME simulator shall send a SELECT command with AID to the UICC to select and activate the USIM application.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR2b].

The FCP shall contain the following tags [CR4]:

-   *Tag '82' (File Descriptor)*

    The first byte shall be '38' or '78' (indicating a DF or ADF);

-   *Tag '84' (DF name - AID)*

    The value shall be the AID of the USIM application;

-   *Tag 'A5' (Proprietary information)*

    It shall contain tag '80' (UICC characteristics);

-   *Tag '8A' (Life Cycle Status Integer);*

-   *Tag 'C6' (PIN Status Template DO)*

    It shall contain tag '90' (PS_DO).

The FCP shall contain exactly one of the following tags:

-   *Tag '8C' (Compact format);*

-   *Tag 'AB' (Expanded format);*

-   *Tag '8B' (Referenced to Expanded Format).*

*The TLV DOs with the above Tags shall be provided in FCP in order given in the Table 11.4 of subclause 11.1.1.3 of the TS 102.221 [**Error! Bookmark not defined.**] [CR10].*

j) The ME simulator shall send a SELECT command to the UICC to select DF$_{TELECOM}$.

k) The ME simulator shall send a SELECT command with P1 = '00' and data field equals to '7FFF' to the UICC to select the ADF of the current USIM application.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR9].

The FCP returned shall be as same as those returned in step i) above [CR4].

l) The ME simulator shall send a SELECT command with P1 = '00' and data field equals to '3F00' to the UICC to select the MF.

The status returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR8].

The FCP returned shall be as same as those returned in step c) above [CR3].

m) The ME simulator shall send a SELECT command with P1 = '00', P2 = '0C' and with empty data field to the UICC to select the MF.

The ~~status returned by~~ response from the UICC shall be only SW1 = '90', SW2 = '00' – normal ending of the command [CR7, CR8].

~~The FCP returned shall be as same as those returned in step c) above [CR3].~~

6.8.1.7.4 Method of test

NOTE 1: CR7 can not be tested for T = 0 protocol as the Le byte is not transmitted to the UICC. It is dependent on the design of the transport layer of a ME whether to pass all the response data bytes from the UICC to its application layer according to the Le byte. (CR7 is tested in test procedure 4)

NOTE 2: When EF$_{SMS}$ does not support the SFI, any other linear fixed EF in ADF$_{USIM}$ supporting SFI and capable of storing at least 20 bytes of data shall be chosen for test procedure 3 (SFI).

NOTE 3: When EF$_{SMS}$ is not supported by the USIM application, any other linear fixed EF capable of storing at least 20 bytes of data may be used.

Initial conditions

1) The UICC shall be connected to a ME simulator.

2) The records in EF$_{SMS}$ shall contain the following data for the first 20 bytes:

```
1st record   'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0 A1 A2 FF A0 A1 A2 A3 A4 A5 A6'
2nd record   'B0 B1 B2 A0 A1 A2 A0 A1 A2 B0 B1 B2 FF B0 B1 B2 B3 B4 B5 B6'
3rd record   'B0 B1 B2 A0 A1 A2 B0 B1 B2 A0 A1 A2 FF C0 C1 C2 C3 C4 C5 C6'
4th record   'A0 A1 A2 B0 B1 B2 B0 B1 B2 B0 B1 B2 FF D0 D1 D2 D3 D4 D5 D6'
```

3) The data for the remainder of these four records and for all other records shall be 'FF'.

Test procedure 2 (enhanced search)

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

c) The ME simulator shall send a SELECT command to the UICC to select EF$_{SMS}$.

d) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

e) The ME simulator shall send a SEARCH RECORD command using the record number = '01', the 'enhanced forward search from record indicated in P1' mode, search pattern 'A0 A1 A2 B0' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '03' indicating that the search shall start from that offset.

The data returned shall be '02 03' indicating that the second and third records have been found [CR3b, CR9b].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

f) The ME simulator shall send a SEARCH RECORD command using the record number = '02', the 'enhanced backward search from record indicated in P1' mode, search pattern 'A0 A1 A2 B0' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '03' indicating that the search shall start from that offset.

The response data shall be '02' indicating that the second record has been found [CR3b, CR9b].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

g) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from next record' mode, search pattern 'A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '07' indicating that the search shall start from that offset.

The response data shall be '03' indicating that the third record has been found [CR3b, CR9c].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

h) The ME simulator shall send a SEARCH RECORD command using the P1 = '01', the 'enhanced forward search from next record' mode, search pattern 'A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '07' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error [CR10].

i) The ME simulator shall send a SEARCH RECORD command using the P1 = '04', the 'enhanced backward search from previous record' mode, search pattern 'A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '07' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error [CR10].

j) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced backward search from previous record' mode, search pattern 'B1 B2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '07' indicating that the search shall start from that offset.

The response data shall be '02' indicating that the second record has been found [CR3b, CR9d].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

k) The ME simulator shall send a SEARCH RECORD command using the record number = '03', the 'enhanced forward search from record indicated in P1' mode, search pattern 'B1 B2 A0' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '1' and the second byte shall be set to 'B0' indicating that the search shall start after the first occurrence of the value.

The response data shall be '03' indicating that the third record has been found [CR3c, CR9a].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

l) The ME simulator shall send a SEARCH RECORD command using the record number = '02', the 'enhanced backward search from record indicated in P1' mode, search pattern 'B1 B2 A0' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '1' and the second byte shall be set to 'B0' indicating that the search shall start after the first occurrence of the value.

The response data shall be '02 01' indicating that the first and second record has been found [CR3c, CR9b].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

m) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from next record' mode, search pattern 'B0 B1' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '1' and the second byte shall be set to 'A2' indicating that the search shall start after the first occurrence of the value.

The response data shall be '03 04' indicating that the third and fourth record have been found [CR3c, CR9c].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

n) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced backward search from previous record' mode, search pattern 'B0 B1' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '1' and the second

byte shall be set to 'A2' indicating that the search shall start after the first occurrence of the value.

The response data shall be '02 01' indicating that the first and second record have been found [CR3c, CR9d].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

o) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from ~~previous~~ next record' mode, search pattern 'FF B0' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '1' and the second byte shall be set to 'FF' indicating that the search shall start after the first occurrence of the value.

No data shall be returned by the UICC as this search pattern can not be found in any of the records [CR7a].

p) The ME simulator shall send a SELECT command to the UICC to select EF$_{SMS}$.

q) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from record indicated in P1' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error as no current record exists.

r) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from next record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The response data shall be '01 02 03 04' indicating that the first, second, third and fourth record have been found [CR 11].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

s) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced forward search from next record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The response data shall be '02 03 04' indicating that the second, third and fourth record have been found [CR4, CR9c].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

t) The ME simulator shall send a SELECT command to the UICC to select EF$_{SMS}$.

u) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced backward search from record indicated in P1' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error as no current record exists.

v) The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced backward search from previous record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The response data shall be '04 03 02 01' indicating that the first, second, third and fourth record have been found [CR12].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

w)   The ME simulator shall send a SEARCH RECORD command using the P1 = '00', the 'enhanced backward search from previous record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The response data shall be '03 02 01' indicating that the first, second and third record have been found [CR4, CR9d].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

x)   The ME simulator shall send a SEARCH RECORD command using the P1 = '01', the 'enhanced forward search from next record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error [CR 10].

y)   The ME simulator shall send a SEARCH RECORD command using the P1 = '01', the 'enhanced backward search from previous record' mode, search pattern 'A0 A1 A2' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '00' indicating that the search shall start from that offset.

The status condition returned by the UICC shall indicate an error [CR 10].

z)   The ME simulator shall send a SEARCH RECORD command using the record number = '01', the 'enhanced forward search from record indicated in P1' mode and search pattern 'A0 A2 A3 A4' with Le = '00' to the UICC. The bit 4 of the first byte in the search indication shall be set to '0' and the second byte shall be set to '03' indicating that the search shall start from that offset.

No data shall be returned by the UICC as this search pattern can not be found in any of the records [CR7a].

aa)   The ME simulator shall send a READ RECORD command using CURRENT mode to the UICC.

The record data returned shall be that of the third record in EF$_{SMS}$ [CR13].

6.8.1.15.4   Method of test

NOTE 1:   Activation requires the verification of ADM, and the respective requirements for their fulfilment are the responsibility of the appropriate administrative authority. Therefore, the following test procedure shall be understood as an example.

NOTE 2:   When EF$_{CCP2}$ under ADF$_{USIM}$ is not supported by the UICC, any supported linear fixed EF in the USIM application may be chosen.

Initial conditions

1)   The UICC shall be connected to a ME simulator.

Test procedure

a)   The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

a) The ME simulator shall gain the security access condition(s) specified for both DEACTIVATE and ACTIVATE on EF$_{CCP2}$. (This procedure is dependent on the respective requirements of appropriate administrative authority and may require several steps.)

b) The ME simulator shall send a SELECT command to the UICC to select EF$_{CCP2}$.

c) The ME simulator shall send a DEACTIVATE FILE command to the UICC to deactivate EF$_{CCP2}$.

f) The ME simulator shall reset the UICC.

g) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

h) The ME simulator shall send an ACTIVATE FILE command using 'file ID selection' to the UICC to select and activate EF$_{CCP2}$.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '82' - access condition not fulfilled [CR4].

i) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

j) The ME simulator shall send a READ RECORD command to the UICC to read record 1.

The status condition returned by the UICC shall be SW1 = '69', SW2 = '86' – command not allowed (no EF selected) [CR6].

k) The ME simulator shall reset the UICC.

l) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

m) The ME simulator shall gain the security access condition(s) specified for both DEACTIVATE and ACTIVATE on EF$_{CCP2}$. (This procedure is dependent on the respective requirements of appropriate administrative authority and may require several steps.)

n) ~~The ME simulator shall send an ACTIVATE FILE command using 'file ID selection' to the UICC to select and activate EF~~$_{CCP2}$~~.~~

n~~o~~) The ME simulator shall send a SELECT command to the UICC to select EF$_{CCP2}$.

The value of Life Cycle Status Integer of the response data shall indicate that the EF is deactivated.

The status condition returned by the UICC shall be SW1 = '62', SW2 = '83' – selected file invalidated.

o~~p~~) The ME simulator shall send an ACTIVATE FILE command using 'file ID selection' to the UICC to select and activate EF$_{CCP2}$.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1, CR2a, CR3, CR4].

p~~q~~) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.

q~~r~~) The ME simulator shall send a READ RECORD command to the UICC.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command [CR5].

r~~s~~) The ME simulator shall send a SELECT command to the UICC to select EF$_{CCP2}$.

The value of Life Cycle Status Integer of the response data shall indicate that the EF is activated.

s~t~) The ME simulator shall send a DEACTIVATE FILE command to the UICC to deactivate EF~CCP2~.

t~u~) The ME simulator shall reset the UICC.

u~v~) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

v~w~) The ME simulator shall gain the security access condition(s) specified for both DEACTIVATE and ACTIVATE on EF~CCP2~. (This procedure is dependent on the respective requirements of appropriate administrative authority and may require several steps.)

w~x~) The ME simulator shall send an ACTIVATE command using 'path selection from MF' to the UICC to select and activate EF~CCP2~.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

x~y~) The ME simulator shall send a SELECT command to the UICC to select EF~CCP2~.

The value of Life Cycle Status Integer of the response data shall indicate that the EF is activated.

y~z~) The ME simulator shall send a DEACTIVATE FILE command to the UICC to deactivate EF~CCP2~.

z~aa~) The ME simulator shall reset the UICC.

aa~bb~) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

bb~cc~) The ME simulator shall gain the security access condition(s) specified for both DEACTIVATE and ACTIVATE on EF~CCP2~. (This procedure is dependent on the respective requirements of appropriate administrative authority and may require several steps.)

cc~dd~) The ME simulator shall send an ACTIVATE FILE command using 'path selection from current DF' to the UICC to select and activate EF~CCP2~.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command.

dd~ee~) The ME simulator shall send a SELECT command to the UICC to select EF~CCP2~.

The value of Life Cycle Status Integer of the response data shall indicate that the EF is activated.

ee~ff~) The ME simulator shall send a DEACTIVATE FILE command to the UICC to deactivate EF~CCP2~.

ff~gg~) The ME simulator shall reset the UICC.

gg~hh~) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.

hh~ii~) The ME simulator shall gain the security access condition(s) specified for both DEACTIVATE and ACTIVATE on EF~CCP2~. (This procedure is dependent on the respective requirements of appropriate administrative authority and may require several steps.)

ii~jj~) The ME simulator shall send a SELECT command to the UICC to select EF~CCP2~.

jj~kk~) The ME simulator shall send an ACTIVATE FILE command with P1 = P2 = '00' and with the empty data field to the UICC.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR7].

kk~~ll~~) The ME simulator shall send a SELECT command to the UICC to select EF_{CCP2}.

The value of Life Cycle Status Integer of the response data shall indicate that the EF is activated [CR7].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' – normal ending of the command.

6.9.1.1.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a ~~STATUS~~ SELECT command <u>to select the MF</u> to the UICC ~~with P2 = '00'~~.

c) The ME simulator shall send a GET RESPONSE command to the UICC.

The UICC shall send a valid FCP.

TLV DO with tag '83' in tag '62' shall indicate that MF is the currently selected file [CR4].

d) The ME simulator shall send a STATUS command to the UICC with P2 = '0C'.

e) The ME simulator shall send a GET RESPONSE command to the UICC.

The status condition returned by the UICC shall be SW1 = '6F', SW2 = 'XX' [CR2, CR3].

6.10.4 Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a STATUS command to the UICC.

TLV DO with tag '83' in the response data shall indicate the identifier of the MF '3F 00'.

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

c) The ME simulator shall send a SELECT command to the UICC to select the first EF clause 13 of TS 102.221 [**Error! Bookmark not defined.**].

The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1, CR2].

The following shall be true of the response data:

- *TLV DO with tag '83' shall indicate the identifier of the file selected [CR3];*

- *TLV DO with tag '82' shall not be '38' and '78' indicating EF [CR4];*

- *TLV DO with tag '82' shall indicate the structure given in the table for the file in clause 13 of TS 102.221 [**Error! Bookmark not defined.**] [CR4];*

- *TLV DO with tag '80' shall be at least the minimum file size given in the table for the file in clause 13 of TS 102.221 [**Error! Bookmark not defined.**]. if the EF is transparent [CR5];*

- *Byte 5 and 6 of TLV DO with tag '82' shall be in accordance with the record length given in the table for the file in clause 13 of TS 102.221 [**Error! Bookmark not defined.**]. if the EF is linear fixed or cyclic [CR5];*

- *TLV DO with tag '80' shall be an integer multiple of the record length if the EF is linear fixed or cyclic [CR5];*

- TLV DO with tag '88' shall indicate the short file identifier given in the table for the file in clause 13 of TS 102.221 [**Error! Bookmark not defined.**] [CR5, CR6];

- *TLV DO with tag '86' or '8B' or '8C' or 'AB' shall indicate the access conditions given in the table for the file in clause 13 of TS 102.221 [**Error! Bookmark not defined.**] [CR8].* <u>*Note: if the access conditions indicate referenced security, the referenced record in the EF_{ARR} may be read at this point if necessary.*</u>

d) Steps a) to c) shall be repeated for the remaining mandatory EFs in clause 13 of TS 102.221 [**Error! Bookmark not defined.**].

e) Steps a) to c) shall be repeated for the existing optional EFs in clause 13 of TS 102.221 [**Error! Bookmark not defined.**].

7.1.4   Method of test

Initial conditions

1) The UICC shall be connected to a ME simulator.

Test procedure

a) The ME simulator shall reset the UICC.

b) The ME simulator shall send a SELECT command to the UICC to select the respective DF for the first EF in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**].

   The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1].

c) The ME simulator shall send a SELECT command to the UICC to select the first EF in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**].

   The status condition returned by the UICC shall be SW1 = '90', SW2 = '00' - normal ending of the command [CR1, CR2].

   The following shall be true of the response data:

   - *TLV DO with tag '83' shall indicate the identifier of the file selected [CR3];*

   - *TLV DO with tag '82' shall not be '38' and '78' indicating EF [CR4];*

   - *TLV DO with tag '82' shall indicate the structure given in the table for the file in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**] [CR4];*

- *TLV DO with tag '80' shall be at least the minimum file size given in the table for the file in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**]. if the EF is transparent [CR5];*

- *Byte 5 and 6 of TLV DO with tag '82' shall be in accordance with the record length given in the table for the file in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**]. if the EF is linear fixed or cyclic [CR5];*

- *TLV DO with tag '80' shall be an integer multiple of the record length if the EF is linear fixed or cyclic [CR5];*

- *TLV DO with tag '88' shall indicate the short file identifier given in the table for the file in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**] [CR5, CR6];*

- *TLV DO with tag '86' or '8B' or '8C' or 'AB' shall indicate the access conditions given in the table for the file in clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**] [CR8].*
  Note: if the access conditions indicate referenced security, the referenced record in the EF$_{ARR}$ may be read at this point if necessary.

d) Steps a) to c) shall be repeated for the remaining mandatory EFs clause 4 of
3G TS 31.102 [**Error! Bookmark not defined.**].

e) Steps a) to c) shall be repeated for the existing optional EFs clause 4 of 3G TS 31.102 [**Error! Bookmark not defined.**].