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Part 2: UICC features
(Release 10)

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The present document is part 2 of a multi-part deliverable covering the Test specification for the Host Controller Interface (HCI), as identified below:

Part 1: "Terminal features";

Part 2: "UICC features";

Part 3: "Host Controller features".

Modal verbs terminology

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

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Introduction

The present document defines test cases for the UICC relating to the Host Controller Interface (HCI) as specified in ETSI TS 102 622 [1].

The aim of the present document is to ensure interoperability between the terminal and the UICC independently of the respective manufacturer, card issuer or operator.

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1 Scope

The present document covers the minimum characteristics which are considered necessary for the UICC in order to provide compliance to ETSI TS 102 622 [1].

The present document specifies the test cases for:

- the HCI core as described in the first part of ETSI TS 102 622 [1];
- the contactless platform as described in the second part of ETSI TS 102 622 [1].

Test cases for the terminal relating to ETSI TS 102 622 [1] and test cases for the Single Wire Protocol (SWP) covering both terminal and UICC are out of scope of the present document.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

[1] ETSI TS 102 622: "Smart Cards; UICC - Contactless Front-end (CLF) Interface; Host Controller Interface (HCI)".

[2] ETSI TS 102 613: "Smart Cards; UICC - Contactless Front-end (CLF) Interface; Part 1: Physical and data link layer characteristics".

[3] ISO/IEC 18092: "Information technology - Telecommunications and information exchange between systems - Near Field Communication - Interface and Protocol (NFCIP-1)".

[4] ISO/IEC 14443-3: "Identification cards -- Contactless integrated circuit(s) cards -- Proximity cards -- Part 3: Initialization and anticollision".

[5] ISO/IEC 14443-4: "Identification cards -- Contactless integrated circuit cards -- Proximity cards -- Part 4: Transmission Protocol".

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

[7] ETSI TS 102 221: "Smart Cards; UICC-Terminal interface; Physical and logical characteristics".

[8] ETSI TS 102 600: "Smart Cards; UICC-Terminal interface; Characteristics of the USB interface".

[9] ISO/IEC 7816-4: "Identification cards - Integrated circuit cards - Part 4: Organization, security and commands for interchange".

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Not applicable.

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI TS 102 622 [1] and the following apply:

allowed error response code: response code which is not ANY_OK and which is allowed for the referenced command as specified in ETSI TS 102 622 [1]

non-occurrence RQ: RQ which has been extracted from ETSI TS 102 622 [1], but which indicates a situation which should never occur

NOTE: The consequence is that such RQs cannot be explicitly tested.

user: any logical or physical entity which controls the test equipment in a way that it is able to trigger activities of the DUT

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3.2 Symbols

For the purposes of the present document, the symbols given in ETSI TS 102 622 [1] and the following apply:

$PIPE_0$	the static pipe connected to the link management gate of the device under test.
$PIPE_1$	the static pipe connected to the administration gate of the device under test.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI TS 102 622 [1] and the following apply:

ATQA	Answer To reQuest of type A
ATQB	Answer To reQuest of type B
CLT	ContactLess Tunnelling
DUT	Device Under Test
EOF	End of Frame
FFS	For Further Study
FWI	Frame Waiting time Integer
HCI	Host Controller Interface
HCS	Host Controller Simulator
HUT	Host Under Test
ICRx	Initial Condition Requirement (where x is a number)

NOTE: As used in the applicability table; see clauses 4.2 and 4.5.2.

LEN	LENgth
PUPI	Pseudo-Unique PICC Identifier

RFU Reserved for Future Use
RO Read-Only
RQ conformance Requirement
RW Read-Write
SAK Select AcKnowledge
SFGT Start-up Frame Guard Time
SOF Starf of Frame
SRx Static Requirement (where x is a number)

NOTE: As used in the applicability table; see clauses 4.2 and 4.5.2.

TRx Trigger Requirement (where x is a number)

NOTE: As used in the applicability table; see clauses 4.2 and 4.5.2.

WO Write-Only

3.4 Void

Content of this clause has been moved to clause 3A.

3A Formats

3A.1 Format of the table of optional features

The columns in table 4.1 have the following meaning.

Column	Meaning
Option	The optional feature supported or not by the DUT.
Status	See clause 3.4.3.
Support	The support columns shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [6], are used for the support column in table 4.1. Y or y supported by the implementation. N or n not supported by the implementation. N/A, n/a or - no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status).
Mnemonic	The mnemonic column contains mnemonic identifiers for each item.

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Full standard:
https://standards.iteh.ai/catalog/standards/sist/0bd1ef9c-4c94-40ff-aee0-5d1d0f8b3/etsi-ts-102-695-2-v10.1.0-2015-03

3A.2 Format of the applicability table

The applicability of every test in table 4.2 is formally expressed by the use of Boolean expression defined in the following clause.

The columns in table 4.2 have the following meaning.

Column	Meaning
Clause	The "Clause" column identifies the clause containing the test case referenced in the "Test case number and description" column.
Test case number and description	The "Test case number and description" column gives a reference to the test case number (along with the corresponding description) detailed in the present document and required to validate the DUT.
Release	The "Release" column gives the Release applicable and onwards, for the corresponding test case.
Execution requirements	The usage of the "Execution requirements" column is described in clause 4.5.2.
Rel-x UICC	For a given Release, the corresponding "Rel-x UICC" column lists the tests required for a DUT to be declared compliant to this Release.
Support	The "Support" column is blank in the proforma, and shall be completed by the manufacturer in respect of each particular requirement to indicate the choices, which have been made in the implementation.