ETSI TS 102 384 V10.4.0 (2022-03)



Smart Cards; UICC-Terminal interface; Card Application Toolkit (CAT) conformance specification (Release 10) Reference RTS/SCP-00014va40

Keywords

smart card

ETSI

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

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

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

Important notice

The present document can be downloaded from: <u>http://www.etsi.org/standards-search</u>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at <u>https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx</u>

If you find errors in the present document, please send your comment to one of the following services: <u>https://portal.etsi.org/People/CommiteeSupportStaff.aspx</u>

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI. The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2022. All rights reserved.

Contents

| Intelle | llectual Property Rights | | | | | | |
|------------------------|---|-------------------------|--|--|--|--|--|
| Forev | Foreword4 | | | | | | |
| Moda | l verbs terminology | | | | | | |
| Introd | luction | | | | | | |
| 1 | Scope | | | | | | |
| 2 2.1 2.2 | Normative references | | | | | | |
| 3 3.1 3.2 3.3 | Terms Symbols | nbols and abbreviations | | | | | |
| 4 | Test equipment | 7 | | | | | |
| 5 | Testing methodology in | n general8 | | | | | |
| 6 | Void | | | | | | |
| 7 | Measurement uncertain | | | | | | |
| 8 | Format of tests | | | | | | |
| 9 | Generic call set up proc | cedures | | | | | |
| 10 | to 26 Void | | | | | | |
| 27 | 27 Testing of the UICC/Terminal interface | | | | | | |
| Anne | Annex A (normative): Details of Test-SIM (TestSIM)9 | | | | | | |
| Anne | nnex B (normative): Details of terminal profile support10 | | | | | | |
| Anne | nnex C (informative): Bibliography11 | | | | | | |
| Anne | x D (informative): | Change history | | | | | |
| Histo | ry | | | | | | |

Intellectual Property Rights

Essential patents

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

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

Trademarks

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

DECTTM, **PLUGTESTSTM**, **UMTSTM** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPPTM** and **LTETM** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2MTM** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM**[®] and the GSM logo are trademarks registered and owned by the GSM Association.

Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Secure Element Technologies (SET).

It is based on work originally done in the 3GPP in TSG-terminals WG3.

The contents of the present document are subject to continuing work within TC SET and may change following formal TC SET approval. If TC SET modifies the contents of the present document, it will then be republished by ETSI with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

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

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 <u>ETSI Drafting Rules</u> (Verbal forms for the expression of provisions).

5

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

Introduction

The present document defines the Card Application Toolkit (CAT) test conformance for the Terminal.

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

Application specific tests for applications residing on an UICC are specified in ETSI TS 131 124 [9].

1 Scope

The present document describes the technical characteristics and methods of test for testing the Card Application Toolkit implemented in Terminals for the UICC, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3] and ETSI ETS 300 406 [4].

The present document covers the minimum characteristics considered necessary in order to provide sufficient performance for Terminal and to prevent interference to other services or to other users.

It does not necessarily include all the characteristics which may be required by a user or subscriber, nor does it necessarily represent the optimum performance achievable.

The present document is part of the ETSI-series of technical specifications. The present document neither replaces any of the other ETSI technical specifications or ETSI related ETSs or ENs, nor is it created to provide full understanding of (or parts of) the NAA. The present document lists the requirements, and provides the methods of test for testing the Card Application Toolkit implemented in a Terminal for conformance to the ETSI standard.

For a full description of the system, reference should be made to all the ETSI technical specifications or ETSI related ETSs or ENs. Clause 2 provides a complete list of the ETSI technical specifications, ETSI related ETSs, ENs, and ETRs, on which this conformance test specifications is based.

If there is a difference between this present conformance document, and any other ETSI technical specification or ETSI related ETS or EN, then the other ETSI technical specification or ETSI related ETS or EN is to be considered the authoritative reference.

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.

• In the case of a reference to a TC SET document, a non specific reference implicitly refers to the latest version of that document in the same Release as the present document.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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

| [1] | Void. |
|-----|---|
| [2] | Void. |
| [3] | ISO/IEC 9646-7 (1995): "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 7: Implementation Conformance Statements". |
| [4] | ETSI ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology". |
| [5] | Void. |
| [6] | Void. |
| [7] | Void. |

| [8] | Void. |
|------|---|
| [9] | ETSI TS 131 124: "Universal Mobile Telecommunications System (UMTS); LTE; 5G; Mobile Equipment (ME) conformance test specification; Universal Subscriber Identity Module Application Toolkit (USAT) conformance test specification (3GPP TS 31.124)". |
| [10] | Void. |
| [11] | Void. |
| [12] | Void. |
| [13] | Void. |
| [14] | Void. |
| [15] | Void. |
| [16] | ETSI TS 102 384: "Smart Cards; UICC-Terminal interface; Card Application Toolkit (CAT) conformance specification (Release 11)". |

Informative references 2.2

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 referenced document (including any amendments) applies.

- In the case of a reference to a TC SET document, a non specific reference implicitly refers to the latest version • of that document in the same Release as the present document.
- NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

Not applicable.

| 3 | Definition of terms, symbols and abbreviations |
|---------------------|--|
| 3.1 Void. | Terms |
| 3.2 Void. | Symbols |
| 3.3 Void. | Abbreviations |
| 4 | Test equipment |

Void.

7

| 5 | Testing methodology in general | | |
|-------------------|--------------------------------|--|--|
| Void. | | | |
| 6 | Void | | |
| 7 Void. | Measurement uncertainty | | |
| 8 | Format of tests | | |
| Void. | | | |
| 9 Void. | Generic call set up procedures | | |
| 10 to 26 Void | | | |

8

27 Testing of the UICC/Terminal interface

All test cases are present in ETSI TS 102 384 [16] release 11.

Annex A (normative): Details of Test-SIM (TestSIM)

9

Void.

Annex B (normative): Details of terminal profile support

10

Void.

Annex C (informative): Bibliography

Void.

Annex D (informative): Change history

The table below indicates all change requests that have been incorporated into the present document since it was created by TC SET.

| | | | | Char | nge h | istory | | |
|---------|---------|-------------|-----|------|-------|---|-------|-------|
| Date | Meeting | Doc | CR | Rev | Cat | Subject/Comment | Old | New |
| 2005-05 | SCP#21 | SCP-050135 | | | | Spec was approved during SCP- Plenary#21 | 2.0.0 | 6.0.0 |
| 2005-09 | SCP#22 | SCP-050298 | 001 | | F | Essential corrections in display icons Setup Menu and Select Item | 6.0.0 | 6.1.0 |
| | | SCP-050299 | 002 | | F | Correction of option, applicability and terminal profile support tables | | |
| | | SCP-050300 | 003 | | F | Correction to UCS2 Tests | | |
| 2005-12 | SCP#23 | SCP-050495 | 004 | | F | Essential corrections of Set Up Menu test | 6.1.0 | 6.2.0 |
| | | SCP-050496 | 005 | | F | ETSI TS 102 384: Essential corrections to Select Item (icons support) | - | |
| | | SCP-050497 | 006 | | F | Essential correction of applicability table | | |
| | | SCP-050499 | 007 | | F | Essential correction of replacing USIM/SIM related application to a generic application | | |
| 2006-07 | SCP#26 | SCP-060297 | 009 | | F | Essential correction of IMEISV coding for the Provide Local Information | 6.2.0 | 6.3.0 |
| | | SCP-060298 | 010 | | F | Essential correction of Language Selection Event test | | |
| | | SCP-060299 | 011 | | F | Essential correction of Set Up Menu - Text attribute tests | | |
| | | SCP-060300 | 012 | | F | Essential correction of RUN AT Command for text attribute tests | | |
| | | SCP-060301 | 013 | | F | Essential correction of tables B.1 and E.1 | | |
| | | SCP-060302 | 014 | | F | Essential correction of 27.22.4.8.7, seq. 7.1 | | |
| | | SCP-060303 | 015 | | F | Essential correction of 27.22.4.9.10, seq. 10.1 | | |
| | | SCP-060304 | 016 | | F | Essential correction of Set Up Idle Mode Text for text attribute tests | | |
| | | SCP-060305 | 017 | | F | Collection of essential corrections required for the split of 3GPP TS 31.124 | | |
| | | SCP-060306 | 018 | | F | Essential correction of general test case applicability | | |
| 2006-09 | SCP#27 | SCP-060479 | 019 | | F | Essential correction of RUN AT Command for text attribute tests | 6.3.0 | 6.4.0 |
| | | SCP-060480 | 020 | | F | Corrections in the interpretation of Katakana Character | | |
| | | SCP-060481 | 021 | | F | Correction of various typographical errors | | |
| | | SC-P060482 | 022 | | F | Corrections in SET UP MENU tests |] | |
| | | SCP-060483 | 023 | | F | Essential correction of GET INPUT test |] | |
| | | SCP-060484 | 024 | | F | Correction of GET INKEY test |] | |
| 2007-01 | SCP#29 | SCP-07066 | 025 | | F | Essential correction to 27.22.4.8.7 | 6.4.0 | 6.5.0 |
| | | SCP-07066 | 026 | | F | Essential correction to Get Inkey - Variable timeout test | | |
| 2008-01 | SCP#35 | SCP-080053 | 027 | | F | Correction of DISPLAY TEXT (Variable Time out) test | 6.5.0 | 6.6.0 |
| 2008-07 | SCP#38 | SCP-080338 | 029 | | F | Essential correction of test 27.22.4.15 Seq. 1.11 | 6.5.0 | 6.6.0 |
| 2008-07 | SCP#38 | SCP-080338 | 028 | | В | Addition of UICC server mode test cases | 6.6.0 | 7.0.0 |
| 2010-03 | SCP#44 | SCP(10)0010 | 030 | | F | Corrections to BIP - UICC in server mode tests | 7.0.0 | 7.1.0 |
| 2010-10 | SCP#46 | SCP(10)0220 | 032 | | F | Essential correction of test 27.22.4.9.3 | 7.1.0 | 7.2.0 |

| Change history | | | | | | | | |
|----------------|---------|-----------------|-----|-----|-----|--|--------|--------|
| Date | Meeting | Doc | CR | Rev | Cat | Subject/Comment | Old | New |
| 2010-10 | SCP#47 | SCP(11)0009 | 033 | | F | UICC Server Mode test cases: addition of buffer size option | 7.2.0 | 7.3.0 |
| 2010-10 | SCP#47 | SCP(11)0010 | 034 | | F | BIP - UICC in server mode tests: correction of Event Download - Channel Status Envelopes | 7.2.0 | 7.3.0 |
| 2010-10 | SCP#47 | SCP(11)0011 | 035 | | F | Removal of UICC Server Mode test OPEN CHANNEL 6.3 | 7.2.0 | 7.3.0 |
| 2010-10 | SCP#47 | SCP(11)0012r1 | 036 | 1 | F | Correction of GET CHANNEL STATUS (related to UICC server mode) test cases | 7.2.0 | 7.3.0 |
| 2010-10 | SCP#47 | SCP(11)0013 | 037 | | F | Correction of Channel Status event (related to UICC server mode) test case | 7.2.0 | 7.3.0 |
| 2011-03 | SCP#48 | SCP(11)0099 | 038 | | F | Introduction to Launch application envelop and Open channel Terminal mode tests | 7.2.0 | 7.3.0 |
| 2011-09 | SCP#52 | SCP(11)0295 | 039 | | F | Correction of GET INKEY with variable timeout test case | 7.3.0 | 7.4.0 |
| 2012-03 | SCP#54 | SCP(12)000026 | 040 | | F | Missing chapter for Display parameter changed event | 7.4.0 | 7.5.0 |
| 2012-03 | SCP#54 | SCP(12)000023r1 | 041 | | В | Introduction of test case for the Activate command | 7.4.0 | 7.5.0 |
| 2012-03 | SCP#54 | SCP(12)000025 | 042 | | В | Introduction of test case for the HCI connectivity event | 7.4.0 | 7.5.0 |
| 2012-09 | SCP#56 | SCP(12)000168 | 043 | | В | 3GPP terminal profile value reservation for releases 6, 7 and 8 | 7.5.0 | 8.0.0 |
| 2012-09 | SCP#56 | SCP(12)000169 | 044 | | В | Reduced capability terminals test applicability | 7.5.0 | 8.0.0 |
| 2012-09 | SCP#56 | SCP(12)000170 | 045 | | В | Addition of tests for Location Information for Broadcast technologies | 7.5.0 | 8.0.0 |
| 2013-03 | SCP#58 | SCP(13)000020 | 046 | | D | Annex B upgrade | 8.00 | 9.0.0 |
| 2013-03 | SCP#58 | SCP(13)000021 | 047 | | B | Introduction of test cases for Contactless State Change/Request | 8.00 | 9.0.0 |
| 2013-06 | SCP#59 | SCP(13)000094 | 048 | | В | Tests for Open Channel terminal server mode with user confirmation | 9.0.0 | 10.0.0 |
| 2013-09 | SCP#60 | SCP(13)000125 | 049 | | D | Port number coding alignment | 10.0.0 | 10.1.0 |
| 2013-10 | SCP#61 | SCP(13)000208 | 050 | | F | Correction of TC 27.22.4.33 and TC 27.22.7.19 | 10.1.0 | 10.2.0 |
| | | SCP(13)000207 | 051 | | D | Applicability table reformatting | 10.1.0 | 10.2.0 |
| | | SCP(13)000209 | 052 | | F | Modification of test case 27.22.7.18 | 10.1.0 | 10.2.0 |
| 2014-12 | SCP#66 | SCP(14)000297 | 053 | | F | Essential correction of mismatch between proactive command coding and expected text to be displayed. | 10.1.0 | 10.2.0 |
| 2015-04 | SCP#67 | SCP(15)000109r1 | 057 | 1 | В | Test cases for direct communication channel to terminal applications | 10.2.0 | 10.3.0 |
| 2015-07 | | | | | | To comply with ETSI drafting rules: - removal of hanging paragraphs through addition of missing section headers | 10.2.0 | 10.3.0 |
| 2017-11 | SCP#81 | SCP(17)000169r1 | 059 | | В | Rel-10 content replacement by reference to ETSI TS 102 384, Rel-11 | 10.3.0 | 10.4.0 |

History

| | Document history | | | | | | | |
|---------|------------------|-------------|--|--|--|--|--|--|
| V10.0.0 | July 2013 | Publication | | | | | | |
| V10.1.0 | September 2013 | Publication | | | | | | |
| V10.2.0 | March 2015 | Publication | | | | | | |
| V10.3.0 | August 2015 | Publication | | | | | | |
| V10.4.0 | March 2022 | Publication | | | | | | |