

ETSI TS 102 600 V10.0.0 (2010-10)

Technical Specification

Smart Cards; UICC-Terminal interface; Characteristics of the USB interface (Release 10)



Reference

RTS/SCP-T060808va00

Keywords

interface, 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 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

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

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2010.
All rights reserved.

DECTTM, **PLUGTESTS**TM, **UMTS**TM, **TIPHON**TM, the TIPHON logo and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPPTM is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

LTETM is a Trade Mark of ETSI currently being registered

for the benefit of its Members and of the 3GPP Organizational Partners.

GSM[®] and the GSM logo are Trade Marks registered and owned by the GSM Association.

Contents

Intellectual Property Rights	5
Foreword.....	5
Introduction	5
1 Scope	6
2 References	6
2.1 Normative references	6
2.2 Informative references.....	7
3 Definitions, symbols, abbreviations and coding conventions	7
3.1 Definitions	7
3.2 Symbols.....	8
3.3 Abbreviations	8
3.4 Coding conventions	9
4 USB UICC system architecture.....	9
4.1 Support of the TS 102 221 interface.....	9
4.2 Configurations	9
4.3 Interworking with the TS 102 221 interface.....	10
5 Physical characteristics.....	10
5.1 Contacts.....	10
5.1.1 Provision of contacts.....	10
5.1.1.1 Terminal	10
5.1.1.2 UICC	10
5.1.2 Contact activation and deactivation	10
5.1.3 Inactive contacts	11
5.2 UICC insertion and removal.....	11
6 Electrical characteristics.....	11
6.1 Operating Conditions	11
6.1.1 Class B operating conditions	11
6.1.2 Class C' operating conditions.....	11
7 Initial communication establishment procedures	11
7.1 Supply voltage selection.....	11
7.2 Interface selection.....	12
7.3 IC USB interface activation.....	13
7.4 Power consumption	14
7.4.1 Power consumption of the USB UICC during activation	14
7.4.2 Application related electrical parameters.....	14
7.4.3 Relation with other interfaces	14
7.5 Answer To Reset content	14
7.6 USB UICC as an Inter-Chip USB peripheral	14
7.7 Suspend, Resume and Remote Wakeup	14
7.8 USB UICC deactivation	15
8 USB interface operational features.....	15
8.1 Speed support	15
8.2 Power Negotiation	15
8.3 Resume and remote wakeup time negotiation	16
8.4 Pipes, endpoints and configurations	18
8.5 Enumeration using standard descriptors.....	19
9 Protocol stacks for USB UICC applications	19
9.1 Support of APDU-based UICC applications over the IC USB Interface	19
9.1.1 Proactive Polling.....	20
9.2 Support of IP applications over the IC USB Interface.....	20