
**Identification cards — Contactless
integrated circuit cards — Proximity
cards —**

**Part 4:
Transmission protocol**

AMENDMENT 1: RFU handling rules

*Cartes d'identification — Cartes à circuit intégré sans contact —
Cartes de proximité —*

Partie 4: Protocole de transmission

AMENDEMENT 1: Règles de manipulation des bits RFU

ISO/IEC 14443-4:2016/Amd 1:2016

<https://standards.iteh.ai/catalog/standards/iso/3bab8e8e-bae6-420e-b017-be6246187179/iso-iec-14443-4-2016-amd-1-2016>

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO/IEC 14443-4:2016/Amd 1:2016

<https://standards.iteh.ai/catalog/standards/iso/3bab8e8e-bae6-420e-b017-be6246187179/iso-iec-14443-4-2016-amd-1-2016>



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

Amendment 1 to ISO/IEC 14443-4:2016 was prepared by Technical Committee ISO/IEC JTC 1, *Information technology, SC 17, Cards and personal identification*.

ISO/IEC 14443-4:2016/Amd 1:2016

<https://standards.iteh.ai/catalog/standards/iso/3bab8e8e-bae6-420e-b017-be6246187179/iso-iec-14443-4-2016-amd-1-2016>

Identification cards — Contactless integrated circuit cards — Proximity cards —

Part 4: Transmission protocol

AMENDMENT 1: RFU handling rules

Amendment 1: RFU handling rules

Page 2, Clause 4

Add new text after the last dash:

“For the purposes of this part of ISO/IEC 14443, the following general rules apply:

- A PICC or PCD sending RFU bits shall set these bits to the value indicated herein or to (0)_b if no value is given.
- A PICC or PCD receiving RFU bits shall disregard the value of these bits and shall maintain and not change its function, unless explicitly stated otherwise.”

Page 5, 5.1

Replace the second dash and NOTE with the following dash and NOTE:

- “— Until the RFU values ‘D’ - ‘F’ are assigned by ISO/IEC, a PICC receiving an FSDI with a value = ‘D’ - ‘F’ shall interpret it as FSDI = ‘C’ (FSD = 4 096 bytes).”

NOTE This PCD requirement is added for PCD’s compatibility with future PICCs when ISO/IEC further defines the behaviour for the RFU values of ‘D’ - ‘F’.”

Delete the fourth dash.

Page 7, 5.2.3

Replace the first dash with:

- “— b8 is RFU.”

Replace the fourth dash and NOTE with the following dash and NOTE:

- “— Until the RFU values ‘D’ - ‘F’ are assigned by ISO/IEC, a PCD receiving an FSCI with a value = ‘D’ - ‘F’ shall interpret it as FSCI = ‘C’ (FSC = 4 096 bytes).”

NOTE This PICC requirement is added for PICC’s compatibility with future PCDs when ISO/IEC further defines the behaviour for the RFU values of ‘D’ - ‘F’.”

Replace Figure 5 with:

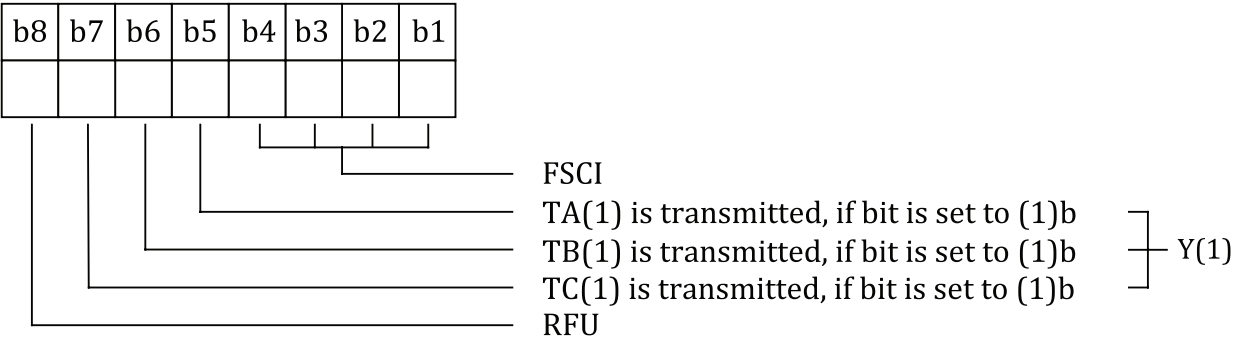


Figure 5 — Coding of format byte

Page 8, 5.2.4

Replace the third dash with:

“— b4 shall be set to (0)b.”

Replace Figure 6 with:

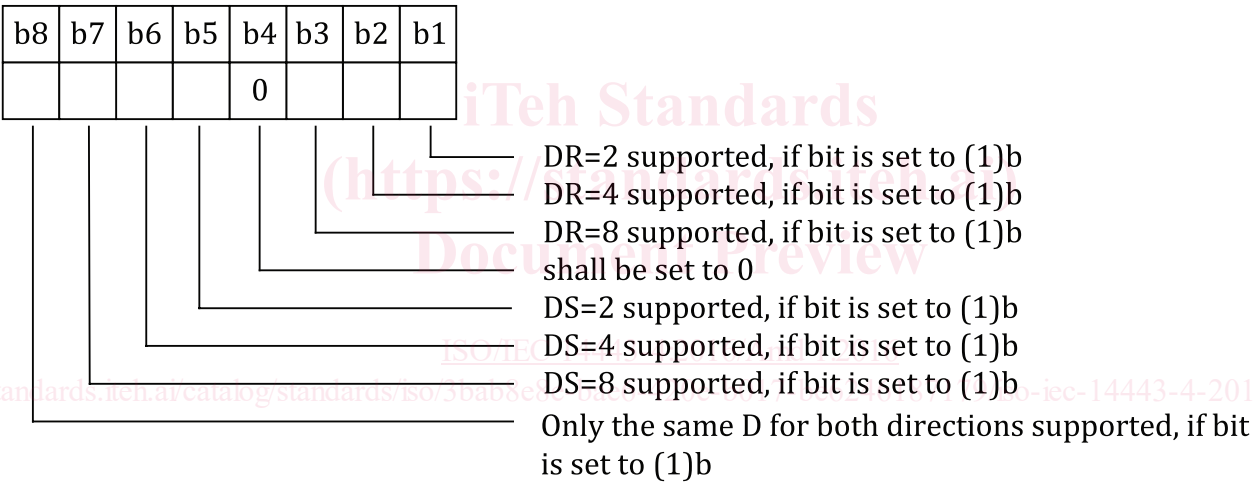


Figure 6 — Coding of interface byte TA(1)

Replace the last paragraph with:

A PCD receiving TA(1) with b4 = (1)b shall interpret it as (b8 to b1) = (00000000)b, implying only ~106 kbit/s supported in both directions. The definition of TA(1) with b4 = (1)b is otherwise undefined.

Page 9, 5.2.5

Replace the last two paragraphs with:

“Until the RFU value 15 is assigned by ISO/IEC, a PCD receiving SFGI = 15 shall interpret it as SFGI = 0.

Until the RFU value 15 is assigned by ISO/IEC, a PCD receiving FWI = 15 shall interpret it as FWI = 4.”

Page 9, 5.2.6

Replace the first dash of the second paragraph with:

“— b8 to b3 are each RFU.”

Delete the third dash of the second paragraph.