

Third edition
2016-06-01

AMENDMENT 1
2016-12-15

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

**Part 3:
Initialization and anticollision**

iTAMENDMENT 1:RFU handling rules

(<https://standards.iteh.ai/>) *Cartes d'identification — Cartes à circuit intégré sans contact —
Cartes de proximité —*
Document Preview
Partie 3: Initialisation et anticollision

AMENDEMENT 1: Règles de manipulation des bits RFU

[ISO/IEC 14443-3:2016/Amd.1:2016](https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-amd-1-2016)

<https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-amd-1-2016>



Reference number
ISO/IEC 14443-3:2016/Amd.1:2016(E)

© ISO/IEC 2016

iTeh Standards

(<https://standards.iteh.ai>)

Document Preview

[ISO/IEC 14443-3:2016/Amd.1:2016](https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-amd-1-2016)

<https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-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 14443-3:2016 was prepared by Technical Committee ISO/JTC 1, *Information technology, Subcommittee SC 17, Cards and personal identification*.

[ISO/IEC 14443-3:2016/Amd.1:2016](http://www.iso.org/iso/foreword.html)

<https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-amd-1-2016>

Identification cards — Contactless integrated circuit cards — Proximity cards —

Part 3: Initialization and anticollision

AMENDMENT 1: RFU handling rules

Amendment 1: RFU handling rules

Page 5, Clause 4

Add new text after the last dash.

“For the purposes of this document, 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 ignore the value of these bits and shall maintain and not change its function, unless explicitly stated otherwise.”

Page 6, Clause 6 (<https://standards.iteh.ai>)

Delete the second paragraph.

Page 16, 6.4.1

Delete the penultimate sentence.

<https://standards.iteh.ai/catalog/standards/iso/b421047d-a2dd-4519-a7d0-4407252003c4/iso-iec-14443-3-2016-amd-1-2016>

Replace the last sentence with:

“A PICC receiving a short frame containing an RFU value shall interpret this as Error (see Figure 7) and shall not send a response.”

Page 17, 6.4.3

Replace the last two paragraphs:

“If the PICC responds with any modulation during a period of 1 ms after the end of the frame containing the HLTA command, this response shall be interpreted as ‘not acknowledge’.

NOTE The PCD should apply an additional waiting time margin of 0,1 ms.”

with:

“When receiving a valid HLTA command in any state, the PICC shall not respond. The PCD shall not interpret any modulation received during a period of 1 ms after the end of the frame containing the HLTA command.

In ACTIVE or ACTIVE* state, the PICC may respond to an invalid HLTA command.”

Page 18, 6.5.2.1

Replace the first sentence with:

“Table 4 specifies the coding of ATQA.”

Replace Table 4 with:

Table 4 — Coding of ATQA

MSB															LSB				
b16	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1				
Each bit RFU		Proprietary coding				UID size bit frame		RFU		Bit frame anticollision									

Delete the second paragraph after Table 4 and the last paragraph.

Page 20, 6.5.3.2

Replace the last paragraph and NOTE with:

“A PICC receiving an RFU value should interpret it as Error (see Figure 7) and should not send a response.”

Page 21, 6.5.3.3

Replace the two paragraphs after Table 8 with:

“The PCD shall set NVB only to values defined in Table 8 except that for byte counts 6 and 7 only bit count of 0 is allowed.

A PICC receiving a byte count value not specified in Table 8 (b8 to b5), or receiving a bit count value not specified in Table 8 (b4 to b1) for byte count equal 2 to 5 or set to any value other than 0 for byte count equal 6 or 7, should interpret it as Error (see Figure 7) and should not send a response.”

Page 22, 6.5.3.4

Replace the paragraph after Table 9 with:

“For b3 = (1)b the PCD shall ignore any other bit of SAK. For b3 = (0)b the PCD shall interpret b6 and shall ignore any of the remaining bits of SAK.”

Page 23, 6.5.4

Replace:

“A PICC sending uid0 with an RFU value is not compliant with this standard. A PICC sending a proprietary number shall fulfil all other requirements of the anticollision sequence including CT otherwise such a PICC is not compliant with this standard.”

with:

“A PICC sending a proprietary number shall fulfil all other requirements of the anticollision sequence including CT.”

Page 25, Clause 7

Delete the second paragraph.

Page 36, 7.7.3

Delete the first sentence of the paragraph after Table 22.