ISO/IEC JTC1/SC17   2006-10-23
Cards and personal identification

ISO/IEC JTC1/SC17 N 3152

DOCUMENT TYPE: Defect Report – Technical Corrigendum

TITLE: Ballot: DCOR Technical Corrigendum 1 ISO/IEC 14443-2:2001/AM1.

BACKWARD POINTER: N

SOURCE: SECRETARIAT ISO/IEC JTC1/SC17

STATUS: The defect report has been discussed and agreed by WG8 and is now circulated to SC17 for approval.

ACTION ID: ACT

WORK ITEM: 1.17.38.6

DUE DATE: 2007-01-24

DISTRIBUTION: P and L-Members of ISO/IEC JTC1/SC17
                     JTC1 Secretariat
                     ISO/IEC ITTF

MEDIUM: SERVER

NO. OF PAGES: 4

G17 Defect Report

<div align="center">

DEFECT REPORT

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The submitter of a defect report shall complete the items in Part 2 and shall send the form to the Convenor or the Secretariat of the WG with which the relevant editor's group is associated.

The WG Convenor or Secretariat shall complete the items in Part 1 and circulate the defect report for review and response by the appropriate defect editing group.

The defect editor shall complete Part 3 and submit the completed report to the Convenor or the Secretariat of the WG.

PART 1 – TO BE COMPLETED BY WG SECRETARIAT
DEFECT REPORT NUMBER: 1
WG SECRETARIAT: Belá Gipp
DATE CIRCULATED BY WG SECRETARIAT: 2006-10-03
DEADLINE ON RESPONSE FROM EDITOR:

PART 2 – TO BE COMPLETED BY SUBMITTER
SUBMITTER: ISO/IEC JTC1/SC17/WG8
FOR REVIEW BY: ISO/IEC JTC1/SC17
DEFECT REPORT CONCERNING (Number and title of IS or DIS final text): ISO/IEC 14443-2:2001/AM1
QUALIFIER (e.g. error, omission, clarification required): Correction
REFERENCES IN DOCUMENT (e.g. page, clause, figure and/or table numbers): page 4, sub clause 8.1.2.2.
NATURE OF DEFECT (complete, concise explanation of the perceived problem): The requested correction allows PICCs to use adaptive modulation threshold values, which significantly enhances system resistance against external noise.
SOLUTION PROPOSED BY THE SUBMITTER (optional): see attachment.

PART 3 – EDITOR'S RESPONSE
ANY MATTERIAL PROPOSED FOR PROCESSING AS A TECHNICAL CORRIGENDUM TO, AN AMENDMENT TO, OR A COMMENTARY ON THE INTERNATIONAL STANDARD OR DIS FINAL

TEST IS ATTCACHED TO THIS COMPLETED REPORT.

1.1 G19 Technical Corrigendum Cover Page

INTERNATIONAL STANDARD ISO/IEC 14443-2:2001/AM1

TECHNICAL CORRIGENDUM 1

Published 2006-10-23

Correction of parameter a

TECHNICAL CORRIGENDUM 1

Titre français

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to International Standard ISO/IEC 14443-2:2001 was prepared by Joint Technical Committee ISO/IEC JTC 1, SC17 WG 8.

Début du texte du rectificatif

ICS 00.000.000　　　　　　　　　　　　　　　　　　**Ref. No. ISO/IEC 14443-2:2001/AM 1**

Descriptors: xxxxxxxxxx xxxxxx xxxxxxxx xxxxxxxx xxxxxx, xxxx xxxxxxxxxxxxxxxx xxxxxxxxxxx xxxxxxx xxxxx xxxxx xx.

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1.1.1

1.1.*2*   Correction of parameter a

DRAFT TECHNICAL CORRIGENDUM 1

Technical Corrigendum 1 to International Standard ISO/IEC 14443-2:2001/AM1
Identification cards – Contactless integrated circuit(s) cards – Proximity cards – Part
2: Radio frequency power and signal interface – Amendment 1: Bit rates for *fc/*64, *fc/*32 and
fc/16 was prepared by Joint Technical Committee ISO/IEC JTC 1, Subcommittee
SC 17, Cards and Personal Identification, Subcommittee SC 17

**Proposed solution for the Defect Report related to
ISO/IEC 14443-2:2001/AM1**

page 4, subclause 8.1.2.2

Replace the sentence " The parameter *a* in figure 5 shall be between 0 and 0,6 for bit rates of
fc/64, *fc*/32 and *fc*/16." with the following:

" The parameter *a* in figure 5 is specified in table C1 for bit rates of *fc*/64, *fc*/32 and *fc*/16.

Table C1 — Parameter a

Parameter	Bit rate					
	fc/64		*fc*/32		*fc*/16	
	Min	Max	Min	Max	Min	Max
a	0	0,2	0	0,35	0	0,6

"

Reasoning

Type A uses the principle of 100% ASK modulation. This applies for the default data rate as well
as for high data rates, however due to real world antenna loading effects the residual
modulation factor detected by the PICC, becomes smaller for lower data rates.
This intrinsic system behaviour shall also be expressed in an adaptive specification of the factor
a dependent on the data rate instead of a constant maximum *a* = 0.6, as it is described in the
current version.
The requested correction allows PICCs to use adaptive modulation threshold values, which
significantly enhances system resistance against external noise.