INTERNATIONAL STANDARD

ISO/IEC 14443-4

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Cards and security devices for personal identification Contactless proximity objects

Part 4:

Transmission protocol

AMENDMENT2: Enhancements for harmonization

Cartes et dispositifs de sécurité pour l'identification personnelle — Objets sans contact de proximité —

Partie 4: Protocole de transmission

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and security devices for personal identification*.

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Cards and security devices for personal identification — Contactless proximity objects —

Part 4:

Transmission protocol

EC 1443-4:2018 And 2:2020 **AMENDMENT 2: Enhancements for harmonization**

Page 1, Clause 1

Replace "deactivation sequence" by "deactivation".

Page 13, 5.7.1.1

Replace the 1st sentence of the 2nd paragraph by:

"In any other case, the PCD may retransmit the RATS before it may deactivate the PICC as defined in Clause 8."

Delete the 2nd sentence.

Page 22, 7.6.1

Replace the 7th paragraph (the paragraph before NOTE 2) by

"On reception of an S(PARAMETERS) block,

- if any activation combined with previous activations results in an invalid context, or
- if the block contains at least one of the following
 - an unknown tag, or
 - a not supported or wrong value, or
 - an incorrect BER-TLV structure,

the RICC supporting S(PARAMETERS) should not change its current state and protocol parameters, and should respond with an S(PARAMETERS) block which may contain supported indication tags and/or S(PARAMÉTERS) error."

Page 22, 7.6.1

Replace 13th paragraph ("If the PICC does not support S(PARAMETERS), it shall stay mute on reception of any S(PARAMETERS) block.") by

"The PICC not supporting S(PARAMETERS) shall interpret any S(PARAMETERS) block as protocol error."

ISO/IEC 14443-4:2018/Amd.2:2020(E)

Page 25, 7.6.5.2

Replace last paragraph by:

"In case of not receiving an S(DESELECT) response after an S(DESELECT) request, the PCD may ignore the PICC or reset the operating field."

Page 26, 7.6.7.1 a)

Replace the 2nd paragraph by:

"The PCD shall attempt error recovery by applying once or twice PCD rules (see 7.6.5.2). If the error recovery is unsuccessful the PCD may use once or twice S(DESELECT) request (as specified in 8.2) or reset the operating field."

Page 27, 7.6.7.1 b)

Replace the 2nd paragraph by:

"The PCD shall either send S(DESELECT) request or reset the operating field."

Page 33, 7.6.7.2 b)

Replace the text by:

"protocol error."

Page 27, Clause 8

Replace the 1st and 2nd paragraphs by:

"The PCD should deactivate the PICC (set the PICC to HALT state), after the transactions between PCD and PICC have been completed, by sending a DESELECT command."

Page 27, 8.2

In the last paragraph, replace "retry the deactivation sequence" by "send a S(DESELECT) request once more."

Page 28, Clause 9, Table 6

Replace table footnote ^a by:

"a For Type A PICCs, either the tag shall be omitted, or the value shall be set to '00'."

Add table footnote e:

"e For Type A PICCs, the tag shall be omitted."

Replace the table footnote references a, c, d in the value of tag 85 by c, d, e.