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AMENDMENT 1
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Identification cards — Physical characteristics

AMENDMENT 1: Criteria for cards containing integrated circuits

Cartes d'identification — Caractéristiques physiques

AMENDEMENT 1: Critères pour les cartes contenant des circuits intégrés

Reference number
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Foreword

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The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO/IEC 7810:2003 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

It reflects a transfer of certain physical requirements from integrated circuit card standards (primarily ISO/IEC 14443-1).

Identification cards — Physical characteristics

AMENDMENT 1: Criteria for cards containing integrated circuits

Page v, Introduction

Add the following after list item 6:

"7. Criteria for cards containing certain types of integrated circuit have been added."

Page 1, Clause 3

Add the following to the list of normative references:

ISO/IEC 10373-3, *Identification cards — Test methods — Part 3: Integrated circuit cards with contacts and related interface devices*

ISO/IEC 10373-6, *Identification cards — Test methods — Part 6: Proximity cards*

ISO/IEC 10373-7, *Identification cards — Test methods — Part 7: Vicinity cards*

Page 6

Add the following new clause after 8.14:

9 Criteria for cards containing integrated circuits

The following characteristics only apply to cards containing integrated circuits (ICs).

9.1 X-rays

The card shall continue to operate as intended after exposure of any card surface to medium-energy X-radiation as described in the test methods in ISO/IEC 10373-1, with energy in the range of 70 keV to 140 keV, of a cumulative dose of 0,1 Gy per year.

NOTE This corresponds to approximately twice the maximum acceptable dose to which humans may be exposed annually.

9.2 Dynamic bending stress

When subjected to a total of 1 000 bending cycles, the card shall remain testably functional and shall not show any cracked part after testing the card in accordance with the test methods described in ISO/IEC 10373-1.

9.3 Dynamic torsional stress

When subjected to a total of 1 000 torsion cycles, the card shall remain testably functional and shall not show any cracked part after testing in accordance with the test methods described in ISO/IEC 10373-1.

9.4 Static electricity

9.4.1 Contact IC cards

The card shall not be damaged in normal use by a person charged with static electricity.

The performance of the card shall not be degraded by exposure to a static discharge in accordance with the test methods described in ISO/IEC 10373-3 between any contact and ground of a voltage of 2 kV through a resistance of 1 500 ohm from a capacitor of 100 pF.

9.4.2 Contactless IC cards

The card shall continue to operate as intended after testing in accordance with the static electricity test methods described in ISO/IEC 10373-6 and ISO/IEC 10373-7 with a test voltage of 6 kV.

NOTE The referenced test methods will eventually be moved to ISO/IEC 10373-1.

9.5 Operating temperature

The card shall operate as intended over an ambient temperature range of 0 °C to 50 °C.

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