American National Standard

INCITS/ISO/IEC 7811-6:2018 (2020)

(ISO/IEC 7811-6:2018, IDT)

Identification cards - Recording technique - Part 6: Magnetic stripe: High coercivity

Developed by

incits SM

Where IT all begins

Approved American National Standard

ANSI

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

Adopted by INCITS (InterNational Committee for Information Technology Standards) as an American National Standard.

Date of ANSI Approval: 6/22/2020

Published by American National Standards Institute,
25 West 43rd Street, New York, New York 10036

INTERNATIONAL ISO/IEC

Fifth edition
2018-08

Corrected version
2019-04

Identification cards — Recording technique —

Part 6: Magnetic stripe: High coercivity

Cartes d'identification — Technique d'enregistrement —

Partie 6: Bandeau magnétique: Haute coercivité

Reference number
ISO/IEC 7811-6:2018(E)

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

Published in Switzerland

Contents

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 document 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 and IEC 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 voluntary nature of standards, 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.

This document was prepared by ISO/IEC JTC 1, *Information technology*, SC 17, *Cards and personal identification*.

This fifth edition cancels and replaces the fourth edition (ISO/IEC 7811 6:2014), which has been technically revised.

Major changes from the previous edition are as follows:

— wherever possible, the same definitions, criteria and test methods are used in ISO/IEC 7811-2 and ISO/IEC 7811-6;

— the primary standard cards held by Q-Card are used to calibrate the manufacture of secondary reference cards. Other primary standard cards held by PTB and Card testing International (CTI) are used as backup to replace cards held by Q-Card as they wear out;

— the supplier of secondary reference cards has changed from PTB to Q-Card;

— during revision, some figure and table numbers may have changed and might not be the same between the two standards;

— changed the title of Figure 10 to: Noise in signal waveform;

— changed from 0,08 U_R to 0,07 U_R in Figure 10 to match text.

Notes in this document are only used for giving additional information intended to assist in the understanding or use of the document. They do not contain provisions or requirements to which it is necessary to conform in order to claim compliance with this document.

A list of all the parts in the ISO/IEC 7811 series, can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This corrected version of ISO/IEC 7811-6:2018 incorporates the following corrections:

Subclause 3.9, **test recording currents**:

two recording currents defined by:

I_{min} = recording current corresponding to 3,5 F_R

I_{max} = recording current corresponding to 5,0 F_R

has been corrected to:

two recording currents defined by:

I_{min} = recording current corresponding to 2,8 F_R

I_{max} = recording current corresponding to 3,5 F_R

Identification cards — Recording technique —

Part 6:
Magnetic stripe: High coercivity

1 Scope

ISO/IEC 7811 defines the characteristics for identification cards as defined in Clause 3 of this document and the use of such cards for international interchange.

This document specifies requirements for a high coercivity magnetic stripe (including any protective overlay) on an identification card, the encoding technique and coded character sets. It takes into consideration both human and machine aspects and states minimum requirements.

Coercivity influences many of the quantities specified in this document but is not itself specified. The main characteristic of the high coercivity magnetic stripe is its improved resistance to erasure. This is achieved with minimal probability of damage to other magnetic stripes by contact while retaining read compatibility with magnetic stripes as defined in ISO/IEC 7811-2.

ISO/IEC 7811 provides criteria to which cards are to perform. No consideration is given within ISO/IEC 7811 to the amount of use, if any, experienced by the card prior to test. Failure to conform to specified criteria is negotiated between the involved parties.

ISO/IEC 10373-2 specifies the test procedures used to check cards against the parameters specified in this document.

NOTE Numeric values in the SI and/or Imperial measurement system in this document may have been rounded off and are consistent with, but not exactly equal to each other. Using either system is correct but intermixing or reconverting values can result in errors. The original design was made using the Imperial measurement system.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO/IEC 7810, *Identification cards — Physical characteristics*

ISO/IEC 10373-1, *Identification cards — Test methods — Part 1: General characteristics*

ISO/IEC 10373-2, *Identification cards — Test methods — Part 2: Cards with magnetic stripes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 7810 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/