BS ISO/IEC 18328-1:2015

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Identification cards — ICC-managed devices

Part 1: General framework

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The UK participation in its preparation was entrusted to Technical Committee IST/17, Cards and personal identification.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISO/IEC 18328-1

First edition
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Identification cards — ICC-managed devices —

Part 1: General framework

Cartes d'identification — Dispositifs contrôlés par carte à circuit intégré (ICC) —

Partie 1: Cadre général

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Foreword

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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).

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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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

ISO/IEC 18328 consists of the following parts, under the general title *Identification Cards — ICC-managed Devices*:

— *Part 1: General framework*

— *Part 2: Physical characteristics and test methods for cards with devices*

— *Part 3: Organisation, security and commands for interchange*

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Introduction

New upcoming technologies are providing flexible and suitable devices for input and output operations on ICCs and open a wide area of applications and use cases. Interoperability in current developments of new projects underlines the need of standardisation.

Integrated Circuit Card (ICC) consists of a card body with an embedded integrated circuit (or several integrated circuits). International Standards such as ISO/IEC 7816 and ISO/IEC 14443 define the physical and logical requirements of the ICC, e.g. location of the contacts, size of the card, electrical signals and communication protocols, security mechanisms, etc.

A lot of new requirements have to be considered when ICC-managed devices are on an ICC. This also incorporates physical aspects, as well as logical view on this type of card. The needs of useful applications and their environments have to be also taken into account for the ICC-managed devices on or in a card body. The nature of the device type leads to different definitions in physical and logical aspects. The intention of this part of ISO/IEC 18328 is to minimize the technology-dependent differences and to increase interchange.

This part of ISO/IEC 18328 offers a basic framework of different aspects which allows interoperability for application of ICC-managed devices on a card or possibly external off the card.

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this part of ISO/IEC 18328 may involve the use of a patent and their foreign counterparts.

— FR99/09818: Smart card architecture incorporating peripherals

— PCT/EP2011/058914: Bank card with display screen

— PCT/EP2011/059021: Bank card with display screen

— EP2001949522A: Contact-free display peripheral device for contact-free portable object

— WO2009077398, US20100263034, EP2225703, JP2010-538574, KR10-1162443: A method for authorizing a communication with a portable electronic device, such as an access to an electronic memory zone corresponding device and system.

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INTERNATIONAL STANDARD ISO/IEC 18328-1:2015(E)

Identification cards — ICC-managed devices —

Part 1:
General framework

1 Scope

This part of ISO/IEC 18328 describes the general architecture of an ICC with ICC-managed devices. This part of ISO/IEC 18328 is one of a series of International Standards which outlines the content and the boundaries covered and standardised by the other parts of ISO/IEC 18328. The general principle of this part of ISO/IEC 18328 is that all activities regarding the ICC-managed devices are controlled by the card-IC. This principle also applies when ICC-managed devices are outside the card. This part of ISO/IEC 18328 is applicable for all kind of cards independent from interface technology for communication.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
button
tactile device used as a single input key

2.2
card-IC
integrated circuit with COS

2.3
ICC-managed devices
device or devices whose activities are controlled only by ICC

2.4
keypad
array of several *buttons* (2.1) organized as one entity

2.5
biometric capture device
sensor whose purpose is to acquire biometric data

Note 1 to entry: See also ISO/IEC 17839.

2.6
electronic display
electronic device to show information

3 Symbols and abbreviated terms

CLF contactless frontend

COS card operating system

NOTE COS is a logical element for implementation of functionalities defined in ISO/IEC 7816-4.

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