BS ISO/IEC 18328-2:2015

BSI Standards Publication

Identification cards — ICC-managed devices

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

bsi.

...making excellence a habit.™

Document Sharing Hub

National foreword

This British Standard is the UK implementation of ISO/IEC 18328-2:2015.

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.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015.
Published by BSI Standards Limited 2015

ISBN 978 0 580 83854 5

ICS 35.240.15

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2015.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO/IEC 18328-2:2015

INTERNATIONAL STANDARD

ISO/IEC 18328-2

First edition
2015-11-01

Identification cards — ICC-managed devices —

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

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

Partie 2: Caractéristiques physiques et méthodes d'essai des cartes avec les dispositifs

Reference number
ISO/IEC 18328-2:2015(E)

Documents
Document Sharing Hub

© ISO/IEC 2015

Full document details: BS ISO/IEC 18328-2:2015

COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

© ISO/IEC 2015 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO/IEC 18328-2:2015

Contents

Page

Foreword ..... **iv**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Abbreviated terms **2**

5 Requirements **2**
- 5.1 General requirements 2
  - 5.1.1 Integrated circuit cards (ICCs) 2
  - 5.1.2 ICCs with contacts 2
  - 5.1.3 Contactless ICCs 2
- 5.2 Requirements for ICCs containing displays 3
  - 5.2.1 General requirements 3
  - 5.2.2 Requirements for matrix displays 3
  - 5.2.3 Requirements for segmented displays 3
- 5.3 Requirements for cards containing biometric capture devices 3

Annex A (informative) **ID-T size card** **4**

Annex B (informative) **Coexistence of new devices with existing technologies** **6**

Annex C (informative) **Display and input element technologies** **11**

Bibliography **13**

© ISO/IEC 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO/IEC 18328-2:2015

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 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*, 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: Organization, security and commands for interchange*

© ISO/IEC 2015 – All rights reserved
Documents
Document Sharing Hub
Full document details: BS ISO/IEC 18328-2:2015

INTERNATIONAL STANDARD ISO/IEC 18328-2:2015(E)

Identification cards — ICC-managed devices —

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

1 Scope

This part of ISO/IEC 18328 defines physical characteristics and test methods for cards with devices, including but not limited to power supplying devices, displays, sensors, microphones, loudspeakers, buttons or keypads. This part of ISO/IEC 18328 also covers aspects of coexistence of technologies of devices on the card and other machine readable card technologies.

Additional requirements related to biometric capture devices are defined in ISO/IEC 17839-2. Such requirements may be applied in addition to the ones defined in this part of ISO/IEC 18328.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO/IEC 7816-1, *Identification cards — Integrated circuit cards — Part 1: Cards with contacts — Physical characteristics*

ISO/IEC 14443-1, *Identification cards — Contactless integrated circuit cards — Proximity cards — Part 1: Physical characteristics*

ISO/IEC 17839-2[1)], *Identification cards — Biometric system on card — Part 2: Physical characteristics*

ISO/IEC 18328-1[1)], *Identification cards — ICC-managed devices — Part 1: General framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 7810, ISO/IEC 18328-1 and the following apply.

3.1
active display area
area of the display that has active dots or segments

Note 1 to entry: The *total display area* typically extends beyond the active display area.

3.2
zone 1
<zones of a display> total display area excluding the active display area

1) To be published.

© ISO/IEC 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO/IEC 18328-2:2015