International Standard

ISO/IEC 17839-2

Information technology — Biometric System-on-Card —

Part 2: Physical characteristics

Technologies de l'information — Système biométrique sur carte — Partie 2: Caractéristiques physiques

Second edition
2024-08

Reference number
ISO/IEC 17839-2:2024(en)

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Published in Switzerland

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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.

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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*.

This second edition cancels and replaces the first edition (ISO/IEC 17839-2:2015), which has been technically revised. It also incorporates ISO/IEC 17839-2:2015/Amd 1:2021.

The main changes are as follows:

— change of Biometric System-on-Card (BSoC) classes and requirements;

— replaced references to S1 and S2 with ID-1 and ID-T;

— changes to mechanical requirements and restrictions.

A list of all parts in the ISO/IEC 17839 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

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Introduction

A Biometric System-on-Card (BSoC) is an integrated circuit card (ICC) with full biometric capabilities as defined in ISO/IEC 17839-1. The implementation of an ICC with such specifications is subject to a number of physical constraints, which are detailed in this document. Therefore, this document provides the specifications for both type ID-1 BSoC and type ID-T BSoC.

ID-1 card dimensions are defined in ISO/IEC 7810. The specifications for this type of BSoC are limited to those related to the location of the biometric capture device, the human-machine interaction, as well as to stating certain limitations on the use of certain technologies such as not allowing embossing on this type of card.

ID-T card dimensions and other characteristics are specified in ISO/IEC 18328-2.

The ISO/IEC 17839 series is organized into three parts:

— ISO/IEC 17839-1 *Information technology — Biometric System-on-Card — Core requirements*

— ISO/IEC 17839-2 (this document) *Information technology — Biometric System-on-Card — Physical characteristics*

— ISO/IEC 17839-3 *Information technology — Biometric System-on-Card — Logical information interchange mechanism*

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Information technology — Biometric System-on-Card —

Part 2: Physical characteristics

1 Scope

This document defines:

— dimensions of a type ID-1 Biometric System-on-Card (BSoC) and type ID-T BSoC;

— position and capture area of the biometric capture device according to the needs of the biometric modality;

— minimum requirements to a BSoC with respect to:

  — mechanical durability; and

  — human-machine interface and ergonomics.

This document is not applicable to other on-card devices such as an electronic display or a keypad.

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/IEC 2382-37, *Information technology — Vocabulary — Part 37: Biometrics*

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

ISO/IEC 10373-1, *Cards and security devices for personal identification — Test methods — Part 1: General characteristics*

ISO/IEC 17839-1, *Information technology — Biometric System-on-Card — Part 1: Core requirements*

ISO/IEC 18328-2, *Identification cards — ICC-managed devices — Part 2: Physical characteristics and test methods for cards with devices*

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-37, ISO/IEC 7810, ISO/IEC 17839-1, ISO/IEC 18328-2 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

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

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