
**Information technology —
Identification cards — On-card
biometric comparison**

*Technologies de l'information — Identification des cartes —
Comparaison biométrique sur cartes*

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Reference number
ISO/IEC 24787:2018(E)

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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

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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 of 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 www.iso.org/iso/foreword.html. This document was prepared by ISO/IEC JTC 1, *Information technology*, SC 17, *Cards and security devices for personal identification*.

This second edition cancels and replaces the first edition (ISO/IEC 24787:2010), which has been technically revised. It also incorporates the Technical Corrigendum ISO/IEC 24787:2010/Cor 1:2013.

The main changes compared to the previous edition are as follows:

- [Clause 7](#) has been restructured; the subclauses have been relocated within the clause:
 - in [7.3.3](#) (previously 7.1.3), configuration data elements and biometric comparison algorithm parameters have been replaced with biometric functionality information and biometric comparison parameters respectively. Refer to [7.3.3.2](#) and [7.3.3.3](#) for more information;
 - in [7.3.4](#) (previously 7.1.4), the implementation of one biometric reference for multiple applications has been updated. Refer to [Annex B](#) for an example of the updated implementation;
- [Clause 8](#) (previously Annex B) has been moved from a normative annex into the main body of the document;
- [Clause 9](#) (previously Clause 8) has been replaced with an outline of the overall work-sharing process;
- previous Annexes A, D, F and H have been removed.

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.

Introduction

On-card biometric comparison provides a more secure biometric verification method than one where a biometric comparison is carried outside a secure cryptographic device. Storing biometric reference data in a secure ICC means that the reference is not available at any external interface once it has been stored in the ICC, mitigating the risk of extraction and misuse by an unauthorised party.

ISO/IEC 7816-11 and ISO/IEC 19785-3 cover technologies for off-card and simple on-card biometric comparison. ISO/IEC 17839 covers biometric system-on-card.

This document provides requirements for a biometric comparison methodology suitable for the on-card environment. It also covers the on-card comparison work-sharing techniques that require an intensity exceeding the capabilities of ICCs.

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