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Information technology — Test methods for on-card biometric comparison applications —

Part 1: General principles and specifications

Technologies de l'information — Méthodes d'essai pour les applications de comparaison biométrique sur carte —

Partie 1: Principes généraux et spécifications

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Foreword

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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 first edition of ISO/IEC 18584-1, together with ISO/IEC 18584-2, cancels and replaces ISO/IEC 18584:2015.

A list of all parts in the ISO/IEC 18584 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

On-card biometric comparison provides a more secure biometric verification method than off-card biometric comparison, as the comparison is executed inside the integrated circuit card (ICC) and the biometric reference is never revealed outside the ICC. ISO/IEC 24787-1 specifies a set of requirements for implementing biometric comparison inside the ICC. An ICC application that claims conformance to ISO/IEC 24787-1 fulfils a set of requirements outlined in this document. The requirements are established for on-card biometric comparison in both a sensor-off card and a Biometric System-on-Card, as defined in ISO/IEC 24787-1.

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Information technology — Test methods for on-card biometric comparison applications —

Part 1: General principles and specifications

1 Scope

This document establishes conformance testing for the requirements described in ISO/IEC 24787-1, which are:

— framework for on-card biometric comparison, both in sensor-off-card systems and as part of Biometric System-on-Card;

— security policies for on-card biometric comparison.

Measuring the performance of on-card biometric comparison algorithms such as error rates or speed is not within the scope of this document.

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 7816-4, *Identification cards — Integrated circuit cards — Part 4: Organization, security and commands for interchange*

ISO/IEC 7816-11, *Identification cards — Integrated circuit cards — Part 11: Personal verification through biometric methods*

ISO/IEC 17839-3, *Information technology — Identification cards — Biometric System-on-Card — Part 3: Logical information interchange mechanism*

ISO/IEC 19785-3:2020, *Information technology — Common Biometric Exchange Formats Framework — Part 3: Patron format specifications*

ISO/IEC 19794 (all parts), *Information technology — Biometric data interchange formats*

ISO/IEC 24787-1:2024, *Information technology — On-card biometric comparison — Part 1: General principles and specifications*

ISO/IEC 29794 (all parts), *Information technology — Biometric sample quality*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-37 and ISO/IEC 24787-1 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

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