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Information technology — Identification cards — Conformance test requirements for on-card biometric comparison applications

Technologies de l'information — Cartes d'identification — Exigences relatives aux essais de conformité pour les applications de comparaison biométrique sur carte

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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. 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).

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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 JTC1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

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Introduction

On-card biometric comparison provides a more secure biometric authentication in that the comparison is executed inside the ICC and the biometric reference is never be revealed outside the ICC. ISO/IEC 24787:2010 specifies a set of requirements for implementing biometric comparison inside the ICC. An ICC application that is claimed to be conformant to ISO/IEC 24787:2010, should fulfil a set of requirements that are stated in this International Standard. The requirements established are for both, the ICCs that fully process the on-card biometric comparison, and those using the work-sharing mechanism, as specified in ISO/IEC 24787:2010.

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1 Scope

This International Standard establishes

— conformance test requirements for using general framework for on-card comparison applications,

— conformance test requirements for using work-sharing mechanism for on-card comparison applications, and

— conformance test requirements to check accomplishment of security policies for on-card biometric comparison that are specified in ISO/IEC 24787:2010.

This International Standard only covers the testing of APDU command and response pairs involved for the ICC that has the capability to perform on-card biometric comparison based on ISO/IEC 24787:2010.

Measuring the performance of on-card biometric comparison algorithms in terms of error rates is not within the scope of this International Standard.

2 Normative references

ISO/IEC 7816-3, *Identification cards — Integrated circuit cards — Part 3: Cards with contacts — Electrical interface and transmission protocols*

ISO/IEC 7816-4:2013, *Identification cards — Integrated circuit cards — Part 4: Organization, security and commands for interchange*

ISO/IEC 7816-11:2004, *Identification cards — Integrated circuit cards — Part 11: Personal verification through biometric methods*

ISO/IEC 7816-15, *Identification cards — Integrated circuit cards — Part 15: Cryptographic information application*

ISO/IEC 19785-1, *Information technology — Common Biometric Exchange Formats Framework — Part 1: Data element specification*

ISO/IEC 19785-2, *Information technology — Common Biometric Exchange Formats Framework — Part 2: Procedures for the operation of the Biometric Registration Authority*

ISO/IEC 19785-3:2007, *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 24761:2009, *Information technology — Security techniques — Authentication context for biometrics*

ISO/IEC 24787:2010, *Information technology — Identification cards — On-card biometric comparison*

ISO/IEC 29794-1:2009, *Information technology — Biometric sample quality — Part 1: Framework*

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