

Third edition
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**Information technology —
Conformance testing methodology for
biometric data interchange formats
defined in ISO/IEC 19794 —**

**Part 5:
Face image data**

*Technologies de l'information — Méthodologie d'essai de conformité
pour les formats d'échange de données biométriques définis dans
l'ISO/CEI 19794 —*

Partie 5: Données d'image de la face



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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).

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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 JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

This third edition cancels and replaces the second edition (ISO/IEC 29109-5:2012), the tables of which have been technically revised.

ISO/IEC 29109 consists of the following parts, under the general title *Information technology — Conformance testing methodology for biometric data interchange formats defined in ISO/IEC 19794*:

- *Part 1: Generalized conformance testing methodology*
- *Part 2: Finger minutiae data*
- *Part 4: Finger image data*
- *Part 5: Face image data*
- *Part 6: Iris image data*
- *Part 7: Signature/sign time series data*
- *Part 8: Finger pattern skeletal data*
- *Part 9: Vascular image data*
- *Part 10: Hand geometry silhouette data*

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Introduction

The ISO/IEC 19794-5:2005 standard specifies a data record interchange format for storing, recording, and transmitting one or more face images within a Common Biometric Exchange Formats Framework (CBEFF) data structure. Each image is accompanied by subject-specific and image-specific metadata contained in a header record. This part of the ISO/IEC 29109 multipart standard establishes tests for checking the correctness of the binary record.

The objective of ISO/IEC 19794-5:2005 cannot be completely achieved until biometric products can be tested to determine whether they conform to those specifications. Conforming implementations are a necessary prerequisite for achieving interoperability among implementations; therefore there is a need for a standardized conformance testing methodology, test assertions, and test procedures as applicable to specific modalities addressed by each part of ISO/IEC 19794. The test assertions will cover as much as practical of the ISO/IEC 19794 requirements (covering the most critical features), so that the conformity results produced by the test suites will reflect the real degree of conformity of the implementations to ISO/IEC 19794 Data Interchange Format records. This is the motivation for the development of this conformance testing methodology.

This part of ISO/IEC 29109 supports those applications that require use of face image data according to ISO/IEC 19794-5:2005. It defines a testing methodology to ensure conformance of a vendor's application or service to the base ISO/IEC 19794-5:2005 specification. Thus this document is intended to

- establish elements of the Conformance Testing Methodology framework that are specific to the Face Image-based Data Record requirements of ISO/IEC 19794-5:2005 conformance testing,
- define requirements and guidelines for specifying conformance test suites and related test methods for measuring conformity of products and services to the Face Image-based Data Record requirements of ISO/IEC 19794-5:2005, and
- define test procedures to be followed before, during, and after conformance testing.

This standard is applicable to the development and use of conformity test method specifications, conformity test suites for ISO/IEC 19794-5:2005 records, and conformance testing programs for ISO/IEC 19794-5:2005 conformant products. It is intended primarily for use by testing organizations, but may be applied by developers and users of test method specifications and test method implementations.