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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 45284.9-2025

**Information technology - Extensible biometric data interchange
formats - Part 9: Vascular image data
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 9 of GB/T 45284 "Information technology - Extensible biometric identification data exchange format".

GB/T 45284 has published the following parts.

- Part 1: Framework;
- Part 4: Fingerprint image data;
- Part 5: Face image data;
- Part 6: Iris image data;
- Part 9: Vascular image data;
- Part 16: Full body image data;

--- Part 17: Gait image sequence data.

This document is equivalent to ISO/IEC 39794-9:2021 "Information technology - Extensible biometric data exchange format Part 9 Part. Vascular Image Data.

Introduction

GB/T 45284 establishes an extensible biometric data exchange format and defines the basic rules, Common data elements and data structures, basic test methods; for different biometric recognition modalities, scalable the data element definitions, data formats, test methods, and application guidelines for typical application scenarios of the data exchange format are provided.

GB/T 45284 "Information Technology Extensible Biometric Identification Data Exchange Format" is planned to consist of 17 parts.

--- Part 1: Framework. The purpose is to establish rules, guidelines, common data elements, Common data structures and compliance testing methods.

--- Part 2: Fingerprint detail point data. The purpose is to establish an extensible fingerprint detail point data exchange format and conformity Test method.

--- Part 3: Fingerprint data. The purpose is to establish an extensible fingerprint data exchange format and conformity testing method.

--- Part 4: Fingerprint image data. The purpose is to establish an extensible fingerprint image data exchange format and conformity testing method.

--- Part 5: Face image data. The purpose is to establish an extensible face image data exchange format and conformance test method.

--- Part 6: Iris image data. The purpose is to establish an extensible iris image data exchange format and conformance test method.

--- Part 7: Signature/signature time series data. The purpose is to establish an extensible signature/signature time series data exchange Change format and compliance test method.

--- Part 8: Fingerprint skeleton data. The purpose is to establish an extensible fingerprint skeleton data exchange format and conformance test method.

--- Part 9: Vascular image data. The purpose is to establish an extensible vascular image data exchange format and conformance test method.

--- Part 10: Hand shape profile data. The purpose is to establish an extensible hand shape profile data exchange format and conformance test method.

--- Part 11: Processed signature/signature dynamic data. The purpose is to establish an extensible processed signature/signature dynamic Dynamic data exchange format and compliance test method.

--- Part 12: Facial feature data. The purpose is to establish an extensible facial feature data exchange format and conformance test method.

--- Part 13: Sound data. The purpose is to establish an extensible sound data exchange format and compliance test method.

--- Part 14: DNA data. The purpose is to establish an extensible DNA data exchange format and conformance testing method.

--- Part 15: Palmprint image data. The purpose is to establish an extensible palmprint image data exchange format and conformance test method.

--- Part 16: Whole body image data. The purpose is to establish an extensible whole body image data exchange format and conformity testing method.

--- Part 17: Gait image sequence data. The purpose is to establish an extensible gait image sequence data exchange format and specifications.

Compatibility test method.

This document is intended to provide a common, extensible data exchange format for applications that need to exchange vascular images.

The establishment of the format can provide developers with greater freedom in selecting or combining comparison algorithms, making vascular feature information no longer dependent on Modes or other types of pre-defined formats are used to adapt to images collected from different devices and with different sizes, spatial sampling rates, and grayscale ranges.

These vascular image data can contain detailed pixel information without being limited by data storage space or transmission time.

Run your own algorithm to determine whether two vascular records are from the same hand. For example, you can store the registration image in the non-the contact chip enables systems that rely on pattern-based algorithms to verify the identity of the document owner.

This file supports binary and Extensible Markup Language (XML) encoding, which can meet a range of User needs. Extensible specifications in Abstract Syntax Notation One (ASN.1) and ASN.1 SARS this document contains the following encoding rules that form the basis for encoding biometric data in binary tag-length-value format.

It is suitable for environments with limited bandwidth or storage. XML Schema Definitions (XSD) constitutes a XML-encoded Based on biometric data, encoded in XML, this document meets the requirements of modern information technology architecture.

Information Technology Scalable Biometric Data Interchange format part 9.vascular image data

1 Scope

This document.

---Specifies a common extensible data exchange format for representing vascular image data. one is based on the extensible format in ASN.1 the first is a tagged binary data format based on XSD, and the second is a text data format based on XSD. Both can store the same information.

---Gives an example of data record content;

---Proposed minimum requirements, recommended methods and best practices for application in data acquisition;

---Describes the conformance test method, test assertions and test procedures for vascular image data in an extensible format.

This document is applicable to the exchange of vascular image data in the storage, recording and transmission links of vascular biometric identification manufacturers.

It is also suitable for manufacturers, testing agencies and end users to conduct compliance testing.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

ISO/IEC 8824-1 Information technology Abstract Syntax Notation One (ASN.1) Part 1: Basic Notation Specification technology-AbstractSyntaxNotationOne(ASN.1)-Part 1: Specificationofbasicnotation] Note. GB/T 16262.1-2006 Information technology Abstract syntax notation 1 (ASN.1) Part 1: Basic notation specification (ISO/IEC 8824-1.

2002, IDT)

ISO/IEC 8825-1 Information technology ASN.1 encoding rules Part 1: Basic encoding rules (BER), regular encoding rules (CER) and non-typical encoding rules (DER) specifications [Information technology-ASN.1 encoding rules-Part 1:

Speci-ficationofBasicEncodingRules(BER),CanonicalEncodingRules(CER)andDistinguishe dEncoding Rules (DER)] Note. GB/T 16263.1-2006 Information technology ASN.1 encoding rules Part 1: Basic encoding rules (BER), regular encoding rules (CER) and Degenerate Encoding Rules (DER) Specification (ISO/IEC 8825-1:2002, IDT) ISO/IEC 14495-1 Information technology - Lossless and near-lossless compression of continuous-tone still