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

GB/T 26237.14-2023

Replacing GB/T 26237.14-2019

**Information technology - Biometric data interchange formats -
Part 14: DNA 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 14 of GB/T 26237 "Information Technology Biometric Data Exchange Format", GB/T 26237 has been issued the following parts are laid out:

- Part 1: Framework;
- Part 2: Fingerprint detail point data;
- Part 3: Fingerprint spectral data;
- Part 4: Fingerprint image data;
- Part 5: Face image data;
- Part 6: Iris image data;
- Part 7: Signature/signature time series data;
- Part 8: Fingerprint skeleton data;

- Part 9: Vascular image data;
- Part 10: Hand contour data;
- Part 11: Dynamic data for signature/signature processing;
- Part 13: Sound data;
- Part 14: DNA data:

This document replaces GB/T 26237.14-2019 "Information Technology Biometric Data Interchange Format - Part 14: DNA Data", compared with GB/T 26237.14-2019, except for structural adjustment and editorial changes, the main technical changes are as follows:

- a) Deleted "DNA", "genome", "mitochondrion", "individual recognition rate", "ancestry", "phenotype", "haplotype", "next generation sequencing 10 terms of "technology", "mobile DNA disposal unit" and "rapid DNA disposal unit" (see Chapter 4 of the:2019 edition);
- b) The four abbreviations "IISNPs", "NGS", "PISNPs" and "UTC" were deleted, and the three abbreviations "ICS", "ID" and "IUT" were added (see Chapter 5 of the:2019 edition);
- c) Added requirements on conformity testing (see Chapter 5);
- d) Deleted D:2:4 autosomal SNP site, D:2:5Y-SNP site, D:2:6X-SNP site, D:2:7 mitochondrial SNP site Loci (see Appendix D of the:2019 edition);
- e) Increased compliance test method (see Appendix F):

This document is modified to adopt ISO/IEC 19794-14:2013 "Information Technology Biometric Data Interchange Format Part 14:

DNA Data:"

Compared with ISO/IEC 19794-14:2013, this document has made the following structural adjustments:

- a) Chapter 2 corresponds to Chapter 3 in ISO/IEC 19794-14:2013;
- b) Chapter 3 corresponds to Chapter 4 in ISO/IEC 19794-14:2013;
- c) Chapter 4 corresponds to Chapter 5 in ISO/IEC 19794-14:2013;
- d) Chapter 5 corresponds to Chapter 2 in ISO/IEC 19794-14:2013;
- e) Change the suspension section of the original 6:4:1 DNA record general data header structure to 6:4:1:1 DNA record general data header composition, change the original 6.4.2 The suspending section expressing metadata is changed to 6:4:2:1 Expressing the metadata structure, and the suspending section of the original 6:4:3:1 DNA information is changed to for 6:4:3:1:1 DNA information structure, change the suspension section of the original 6:4:3:2 DNA typing data to 6:4:3:2:1 DNA typing number data type;

f) Added Table 29~Table 36, Table 37~Table 51 corresponding to Table 29~Table 43 of ISO/IEC 19794-14:2013, added

Table 52~Table 63, Table 64 corresponds to Table 44 of ISO/IEC 19794-14:2013;

g) Appendix A corresponds to Appendix B in ISO/IEC 19794-14:2013: Appendix B and Appendix F are added according to the content of the revised document:

Add, Appendix E is an independent increase:

The technical differences between this document and ISO/IEC 19794-14:2013 and their reasons are as follows:

a) The normative reference document GB/T 1988-1998 has been added to better understand and apply this document within the scope of our country (see 6.4:3:2:11:2);

b) The normative reference document GB/T 2659-2000 has been added to better understand and apply this document within the scope of our country (see

Table F:1 and Table F:2);

c) Replaced ISO/IEC 19794-1:2011 and ISO/IEC 19794-2011 with normatively referenced GB/T 26237.1-2022 1:2011/Amd2, the degree of consistency between the two is revised (see Chapter 3, Chapter 6 and Appendix F);

d) The normative reference document GB/T 29859-2013 is added, because the terms of this document are cited (see Chapter 3);

a) The term "single nucleotide polymorphism" is added to facilitate readers to understand the relevant content of "SNP" in the following text: Removed "deoxygenated Ribonucleic acid" and "individual recognition" are not mentioned in the following two terms: Deleted "rapid DNA disposal unit" and "flow DNA processing unit", because these two terms appear only once in the text, they are reflected in the form of notes;

b) Added Table 1, Table 4, Table 25, Table 26, Table 31, Table 32, Table 35, Table 36, Table 39, Table 40, Table 41, Table 42, Table 43, Table 44, "Length" in Table 45, Table 46, Table 47, Table 48, Table 51, Table 53, Table 54, Table 58, Table 59, Table 60, Table 61, Table 62, and Table 63 (Byte)" column for better understanding and application of this document;

c) The row "Country Code" in Table 3 is deleted for better understanding and application of this document within our country;

d) Change "GPS" to "BDS" to better understand and apply this document within my country (see 6.4:2:9);

e) The lines "X-STR", "SNP", "Y-SNP", and "X-SNP" in Table 7 are added, and "electropherogram" is deleted to meet the actual application in the industry Condition: Added the "China National Accreditation Service for Conformity Assessment Laboratory Accreditation" and "China Metrology Certification" rows in Table 15, and deleted We have

obtained "ISO/IEC 17025 Certification", "GLP Certification", "AABB Certification" and "ISO/ILAC Guild19 Certification" in order to be in my country better understanding and application of this document within the scope of Split the "Nuclear DNA Test" row in Table 7 into "Blood Type Test" "Human Blood (spot) confirmation test", "human semen (spot) confirmation test", "autosomal STR and gender detection", "X chromosome STR detection" "measurement" line, in order to match the actual industry usage;

f) Added "X-STR typing map", "SNP typing", "Y-SNP typing", "X-SNP typing" and "haplotype typing" in Table 22 "NGS sequencing data" to match actual industry usage;

g) Added X-STR typing map, SNP typing, Y-SNP typing, X-SNP typing, haplotype typing, and NGS sequencing numbers data to match actual industry usage (see 6.4:3:2:4, 6:4:3:2:6, 6:4:3:2:7, 6:4:3:2:8, 6:4:3:2:9 and

h) Add D:1:3X-STR sites, D:2 High-throughput sequencing DNA typing technology detection sites, so as to match the actual industry usage match;

i) The DNA typing kit and DNA loci in Appendix D have been changed, and the domestic mainstream DNA typing kits in my country have been added to include in order to better understand and apply this document within the scope of our country:

This document incorporates the amendments to ISO/IEC 19794-14:2013/Amd1:2016, and the outer margins of the terms involved Settings are marked with a vertical double line (||):

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

GB/T 26237 "Information Technology Biometric Data Exchange Format" stipulates the format for exchanging biometric data of various modalities:

It is the core to improve the interoperability of the system: Biometric identification defined in GB/T 33842 "Information Technology GB/T 26237 "Conformity Test Method for Data Exchange Format" is given for GB/T 26237 "Information Technology Biometric Identification Data Exchange Format" Compliance testing method: Since:2016, the compliance testing method of the biometric data exchange format has been gradually incorporated into the "Information Technology Biometric Recognition Data Exchange Format" no longer establishes additional standards, so when revising this document, the conformity test method will be used as as an appendix: Other parts of GB/T 26237 "Information Technology Biometric Data Interchange Format" will remain with this document when revised Consistent, add the compliance test method as an appendix: GB/T 26237 "Information Technology Biometric Identification Data Exchange Format" is proposed to be 15 parts:

--- Part 1: Framework: The purpose is to describe the general concepts and requirements that define the format for the exchange of biometric data: