



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

## Part 4: Finger image data

### TECHNICAL CORRIGENDUM 1

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

*Partie 4: Données d'image du doigt*

*RECTIFICATIF TECHNIQUE 1*

Technical Corrigendum 1 to ISO/IEC 29109-4:2010 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

1. Page 7, “Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)”

Add a new row to the end of Table 1:

Requirement identifier	Reference in base standard	Requirement summary	Level	Status	IUT support	Supported range	Test result
R-71	6.1	All numeric values are fixed-length unsigned integer quantities.	3C	O-1		N/A	N/A

2. Page 3, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-18, third column "Requirement summary"

Replace "0-65635"

with "0 to 65535".

3. Page 5, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)"

In row R-36, third column "Requirement summary":

Replace "Capture device ID"

with

"The (2 byte) capture device ID field denotes the vendor-specific capture device ID. A value of all zeros shall be acceptable and shall indicate that the capture device ID is unspecified. Application developers may obtain the values for these codes from the vendor."

4. Page 5, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-46, third column "Requirement summary"

Replace "'0x1' to '0x10'."

with "0x01 to 0x10."

5. Page 5, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-49, third column "Requirement summary"

Replace "19.69 ppm"

with "197 ppcm"

6. Page 6, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-50, third column "Requirement summary"

Replace "39.37 ppm"

with "394 ppcm"

7. Page 6, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-51, third column "Requirement summary"

Replace "39.37 ppm"

with "394 ppcm"

8. Page 6, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-52, third column "Requirement summary"

Replace "39.37 ppm"

with "394 ppm"

and

replace "19.69 ppm"

with "197 ppm"

9. Page 6, "Table 1 — Requirements of the base standard (ISO/IEC 19794-4:2005)", row R-52

In the third column "Requirement summary", replace "shall" with "should"

In the fifth column "Status", replace "M" with "O"

10. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 3.1, seventh column "Operand"

Replace "47"

with "46"

11. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 8, fifth column, "Field name"

Change "X scan resolution"

To "Horizontal scan resolution"

12. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 9, fifth column, "Field name"

Replace "Y scan resolution"

with "Vertical scan resolution"

13. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 10.1, fifth column "Field name"

Replace "X image resolution"

with "Horizontal image resolution"

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14. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 10.1, seventh column "Operand"

Replace "X Scan Resolution"

with "Horizontal scan resolution"

15. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 10.2, fifth column, "Field name"

Replace "X image resolution"

with "Horizontal image resolution"

16. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test number 11.1, fifth column "Field name"

Replace "Y image resolution"

with "Vertical image resolution"

17. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 11.1, seventh column "Operand"

Replace "Y Scan Resolution"

with "Vertical scan resolution"

18. Page 8, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 11.2, fifth column, "Field name"

Replace "Y image resolution"

with "Vertical image resolution"

19. Page 9, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 13.3, third column, "Requirement ID"

Delete R-52

20. Page 9, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 21.1, seventh column "Operand"

Replace "1-65535 "

with "0 to 65535"

21. Page 9, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 22.1, seventh column "Operand"

Replace "1-65535 "

with "0 to 65535"

22. Page 9, "Table 2 — ISO/IEC 19794-4:2005 conformance test assertions", row Test Number 24.1, seventh column "Operand"

Replace " $2^{32} - 1$ "

with " $(2^{32} - 1) - 14$ "

23. Pages 11 and 12, Test Note "3. {Image acquisition level}"

Replace all seven occurrences of "ESLEIF"

with "ELSEIF"

24. Pages 11 and 12, Test Note "3. {Image acquisition level}"

Replace all fourteen occurrences of "(X and Y) Scan resolution"

with "(Horizontal and Vertical) Scan Resolution"

25. Page 13, Test Note "7. {Image data length}"

Replace "{Image data length} LTE 4294967295 # which is equal to  $(2^{32}-1)$ "

with "{Image data length} LTE 4294967281 # which is equal to  $(2^{32} - 1) - 14$ "

26. Page 14, Test Note "9. {Image compression algorithm}", last sentence

Delete "where {Length of finger/palm data block} contains sizeof{ImageData}."

27. Page 14, Note "10. {Image compression algorithm}"

Replace the entire Note with

"IF {Image acquisition level} EQ (40 OR 41) THEN

IF {Image compression algorithm} EQ (2 OR 3 OR 5) THEN

ERROR

ENDIF

ENDIF "

28. Page 15, Test Note “16. {X image resolution}, {Y image resolution}, {Scale unit}”

Replace both occurrences of “{X image resolution}”

with “{Horizontal image resolution}”

29. Page 15, Test Note “16. {X image resolution}, {Y image resolution}, {Scale unit}”

Replace both occurrences of “{Y image resolution}”

with “{Vertical image resolution}”

30. Page 15, Test Note “17. {Pixel Depth} ”

Add the following:

“IF {Pixel depth} NEQ 8 THEN

{Total Num Pixels} = ({Horiz. Line Length} \* {Vert. Line Length})

{Total Bits of Img} = {Total Num Pixels} \* {Pixel Depth}

{Remainder} = {Total Bits of Img} Modulus 8

IF ({Remainder} > 0) THEN

    {Padding Bits} = 8 – {Remainder}

{Total Bits of Img} += {Padding Bits}

ENDIF

{Total Bytes of Img} = {Total Bits of Img} / 8

IF ({Total Bytes of Img} NEQ ({Length of finger/palm data block} – 14))

ERROR

ENDIF

where 14 is the length of finger header.”