

UIDAI Biometric Device Specifications (Authentication)

BDCS(A)-03-08

STQC - IT Services

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SINGLE FINGER PRINT SCANNER FOR AUTHENTICATION

Parameters	Specification	Basis for Certification
Minimum Platen Area	12.8 mm (w) x 16.5 mm (h)	Supplier to submit test report along with application STQC Lab - visual inspection and dimension measurement.
Resolution	Minimum 500 DPI with 5% margin on the lower side	Supplier to submit test report along with application STQC Lab - functional testing with test harness
Grey scale/ Image type	8 bit, 256 levels	Supplier to submit test report along with application STQC Lab - functional testing
Extractor & Image Template Standard	ISO 19794-2 for fingerprint minutiae template and ISO 19794-4 for Fingerprint Image Template	Supplier to submit test report for syntactical conformance (provisional) STQC Lab - functional testing with test harness (certificate of approval)
Image quality and Extractor Quality	Image Quality: Sensor: Must be listed on "IAFIS Certified Product List" posted on https://www.fbibiospecs.org/IAFIS/Default.aspx under "PIV Single Finger Capture Devices" OR Lab Test conformance report showing compliance to ISO 19794-4 Annexure A, OR any other equivalent conformance report(to be approved for equivalence by expert committee appointed by Competent authority)	Image Quality Test Procedure: Certificate of conformance by supplier (Provisional) Extractor: Test harness to check for compliance of the extracted template. (Certificate of approval)

<u>Parameters</u>	<u>Specification</u>	<u>Basis for Certification</u>
	Extractor: Number of Minutiae generated by extractor to be in conformance to ISO Specification. Tested for at least 12 Minutiae points generated under test conditions.	
Performance Test	Test Report asserting under 2% FRR for sample size of 1500 Residents using test servers holding aadhaar (Detailed guidelines to be published)	Certificate stating the assertion along with test report (templates to be published) and/ or technical rationale (provisional) Testing for operational evaluation. (Certificate of approval)
NFIQ Quality Software	Inbuilt NFIQ quality software either at device level or extractor level.	Statement of conformity by supplier STQC Lab functional testing with test harness comparing the NFIQ reported by the device with Quality tools used at UIDAI (conforming to NIST standards) (provisional) Testing for operational evaluation. (Certificate of approval)
Maximum Acquisition time (Placement to Template)	< 2 secs	Supplier to submit test report along with application STQC Lab - functional testing with test harness
Audio/Visual indication	A/V indication either at device level or at application level for indicating various events like: (a) Indication for placing finger. (b) Start of capturing. (c) End of capturing.	Visual inspection
Liveness Detection	Preferable	Declaration

Parameters	Specification	Basis for Certification
Latent detection	Preferable	Declaration
Platen	Rugged, minimum IP 54 rating preferable Prefer scratch resistant features	Test report by supplier / certification from competent authority (provisional) Testing by STQC for certificate of approval.
Preferred Operating Temperature	0 to 45 degree Centigrade	Test report by supplier / certification from competent authority (provisional) Testing by STQC for certificate of approval.
Preferred Storage Temperature	0 to 50 degree Centigrade	Test report by supplier / certification from competent authority (provisional) Testing by STQC for certificate of approval.
Preferred Humidity	10 to 90%	Test report by supplier / certification from competent authority (provisional) Testing by STQC for certificate of approval.
ESD	>= 8Kv	Test report by supplier / certification from competent authority (provisional) Testing by STQC for certificate of approval.
Environment, health and safety	ROHS certification	Declaration by vendor
Safety	UL or IEC60950 compliance	Certificate / test report (provisional) Testing by STQC for certificate of approval.
EMC compliance	FCC class A or equivalent	Certificate / test report (provisional) Testing by STQC for certificate of

Parameters	Specification	Basis for Certification
		approval.
Operating system environment	Vendor needs to declare the compatible operating system	STQC will test functionality on two OS – Windows & Linux using test harness For other OS, vendor's declaration that the same certified sensor & extractor version will work on other applicable OS (provisional) Testing by STQC for certificate of approval.
Connectivity	<ol style="list-style-type: none"> 1. Standard USB connectivity for PC based application. 2. Connectivity for POS devices. 	<p>Declaration by vendor and supported by test report / certificate (provisional)</p> <p>Testing by STQC for certificate of approval.</p>

Note: These specifications are subject to change based on field findings.