

UIDAI Biometric Device Specifications

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STQC - IT Services

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Camera Specification

Device Characteristics	Values
Capture mode	Plain live capture
Image Quality	Full Frontal (0x01) as per ISO/IEC 19794-5
Minimum Resolution	800x600
Capture mode	Manual Capture with Auto Focus, Auto Lighting Adjustment
Sensor	>2MP Native Sensor.
Connectivity ¹	High Speed USB 2, USB-IF certified
Lens	Fixed, SLR
Power	Through USB/Independent PS/Lithion-Ion preferred to AA/AAA Batteries.
Mount	Tripod
Operating temperature	0 – 50 C
Humidity	10 – 90%
Durability/Shock	
Safety Standard	UL
Software API	Compliant with UIDAI Device Capture API specification V1.0 RC 3

¹ Total of only 1 USB port available for connectivity and power.

Finger print Device Specification

Device Characteristics	Values
Capture mode	Plain live scan capture
Image Acquisition Requirements	Setting level 31 or higher (Section 9.1 of Biometric Design Standards for UID Applications V1.0)
Image evaluation frame rate	> 3 frames/sec, continuous image capture
Capture mode	Auto capture with built-in quality check (incorporates NIST quality considerations)
Capture area	> 76mm x 80mm
Connectivity ²	USB 2, USB-IF certified
Power	Through USB
Dimension (W X H X D)	< 160mm x 160mm x 160mm
Weight	Maximum 2.5 Kg.
Operating temperature	0 – 50 C
Humidity	10 – 90% non-condensing
Durability/Shock	IP 54
Standards	UL certified (if applicable). Meets ISO 19794-4:2005 Section 7 and Annex A certification requirements (IAFIS Appendix F certified).
Software API	Compliant with UIDAI Device Capture API specification V1.0 RC 3

² Total of only 1 USB port available for connectivity and power.

Iris Device Specification

Device Characteristics	Stationary (mounted: wall, tripod or stand) ³	Hand-held ⁴	Hand-held with alignment aid ⁵
Iris Diameter (In pixel)	> 210		
Spatial Resolution	> 60% @ 4.0 Lp/mm		
Pixel Resolution	> 16 Pixels/mm		
# of simultaneous captured eyes ⁶	2		
Viewfinder	External	Internal	External or Internal
Capture distance	> 750 mm	> 50 mm	> 20 mm
Capture volume (width/height/depth)	> 250x500x500mm	> 20x15x12mm	> 20x15x12mm
Exposure time	< 15ms	< 33 ms	< 33 ms
Imaging wavelength	700-900 nm		
Spectral Spread	Power in any 100nm band > 35% of total power		
Scan type	Progressive		
Image margins	Left & right: 0.50x iris diameter, Top & bottom: 0.25x iris diameter		
Pixel depth	> 8 bits/pixel		
Image evaluation frame rate	> 5 frames/sec, continuous image capture		
Capture mode	Auto capture with built-in quality check (incorporates NIST quality considerations)		
Sensor signal to noise ratio	> 36 DB		
Connectivity ⁷	USB 2, USB-IF certified Or Networked (TCP/IP)	USB 2, USB-IF certified	

³ Stationary: Any capture process where the device is stationary and the subject is required to position and rest himself/herself.

⁴ Hand-held: Operator operates and holds the camera and the subject is stationary.

⁵ Alignment aid: Camera has mechanical fixture for alignment. Optical viewfinder is not considered alignment aid.

⁶ Considered simultaneous if second eye is captured within 2 seconds of first eye done without moving the device.

⁷ Total of only 1 USB port will be available for connectivity and power.

Power	USB or independent PS		
Weight	NA	< 1 kg	< 1 kg
Dimension	<300x100x300mm	< 220x200x100mm	< 220x200x100mm
Operating temperature	0-49C		
Humidity	10 – 90% non-condensing		
Durability/Shock	IP54		
Safety Standard	Exempt Group per IEC 62471:2006-07		
Standards	FCC Class A, RoHS		
Software API	Compliant with UIDAI Device Capture API specification V1.0 RC 3		