

NB-2023-S-UID Module

One Touch.
One You.
NEXT Biometrics

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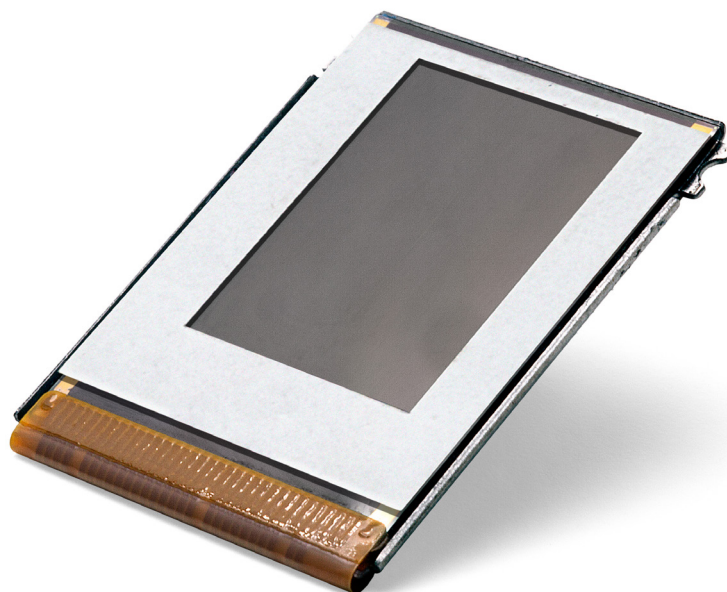
The NB-2023-S-UID is a large-area fingerprint sensor module designed for integration into products such as notebooks, tablets, mobile phones, time-and-attendance terminals, Micro-ATM and eKYC applications. The NB-2023-S-UID relies on the NEXT NB-0510-S sensor chipset mounted on a small printed circuit board for seamless hardware integration. The module connects to the host system via a SPI interface using a flex cable.

The sensor module works with the patented *NEXT Active Thermal*[®] principle. The sensor technology is tolerant against dirt, grease and varying environmental conditions. The large active area of the NB-2023-S-UID allows stable imaging, intuitive user operation and is ideally suited for mass market applications in need of both security and convenience. The NEXT technology makes a high quality sensor available to price sensitive applications without compromising functionality or performance.

The NB-2023-S-UID is intended exclusively for the Aadhaar market in India. NEXT Biometrics offers a turnkey biometric subsystem by providing MINEX extraction SDKs for embedded systems, including Linux and Android. Extraction SDKs are based on the latest, MINEX III certified algorithm from Innovatrics. The module with NB-0510-S has been certified by STQC in June 2018. Level 0 RD Service for Android with NB-2023-S-UID support is pending STQC certification.

DESIGNED FOR INTEGRATION INTO:

- POS terminals
- MicroATM terminals
- eKYC
- Notebooks
- Tablets
- Mobile phones



TECHNICAL SPECIFICATIONS

Sensor technology	<i>NEXT Active Thermal</i> [®] sensing (patented)
Total dimensions in (mm)	19.30 x 26.85 x 2.97 (with connector)
Active sensing area in (mm)	11.9 x 16.9
Pixels	180 x 256
Optical equivalent resolution (ppi)	500 (demonstrated per PIV test)
Gray scale levels	256
Image scan time (s)	0.53
Finger detection	Hardware-assisted, low power
Total process time MINEX extraction	< 1s (depends on host)
Power supply	3.3V
Scan current consumption (mA)	< 100 (typical)
Standby current consumption (µA)	50
Logical Interface	SPI 4-8 Mbit per second
Physical Interface	12 pin FFC connector
MINEX template extractor	Innovatrics ANSI_ISO_SDK_v2.0.3, MINEX III certified
Biometric error rates	< 2% FNMR @ 0.01% FMR
Ingress Protection	2023-S is ready for IP68
ESD protection	±8 kV contact discharge , ±15 kV air discharge, according to IEC 61000-4-2
Mechanical durability	2 million touches
Scratch resistance	Durable lifetime coating, hardness > 9H
Operating conditions	-20 °C to +60 °C at 95% RH (non condensing)
Storage conditions	-20 °C to +70 °C at 95% RH (non condensing)
Sensor designed to enable	CE, FCC, RoHS, WEEE, STQC for UIDAI
Sensor module offerings	IP68 tape: NB-2023-S-V-UID



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