

**The NEXT Biometrics
NB-2023-U-UID**

is a large area fingerprint sensor module. It is designed for integration into products such as notebooks, tablets, mobile phones, MicroATM, and eKYC applications. The NB-2023-U-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 a USB hub or embedded USB host.

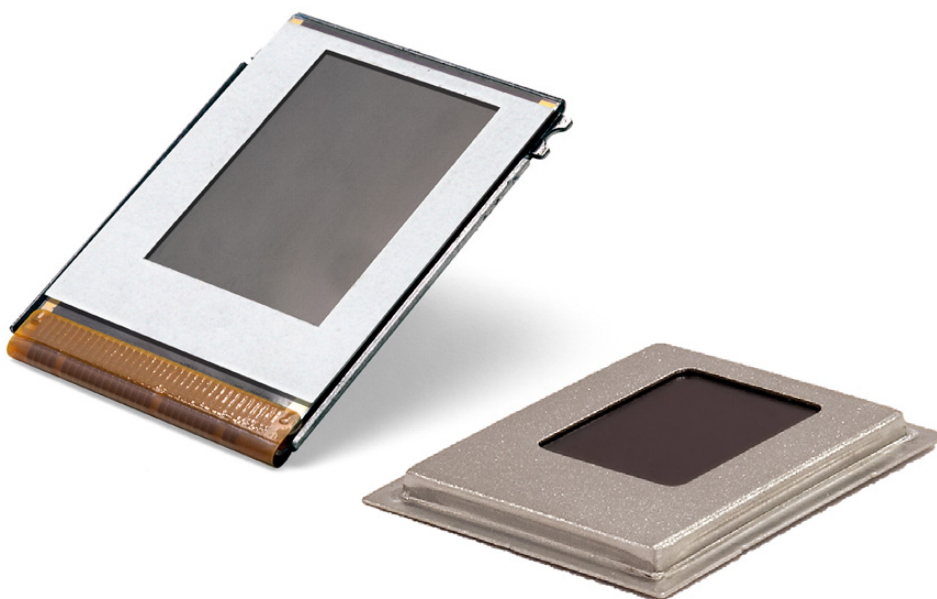
The module works with the patented NEXT Active Thermal™ principle. The sensor technology is tolerant against dirt, grease and varying environmental conditions. The large active area of the NB-2023-U-UID allows stable imaging, intuitive user operation and is ideally suited for mass market applications 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.

NB-2023-U-UID is intended exclusively for the Aadhaar market in India. NEXT Biometrics offers a Level-0 Registered Device Service (RDS) for Microsoft Windows 7, Windows 8.1, Windows 10, Linux, and Android. Level-0 RDS implementations are based on the latest, MINEX 3 certified algorithm from Innovatrics and certified by UIDAI.

NB-2023-U-UID has been tested for compliance with PIV Image Quality Specification for Single Finger Capture Devices (2006) and compliance with ISO/IEC 19794-4:2011. NB-2023-U-UID has obtained basic STQC certification.

APPLICATION EXAMPLES:

- Notebooks
- Tablets
- Mobile phones
- MicroATM
- eKYC



T E C H N I C A L S P E C I F I C A T I O N S

Sensor technology	NEXT Active Thermal™ sensing (patented)
Total dimensions (mm)	NB-2023-U-V-UID: 20.9 x 27.4 x 2.53 NB-2023-U-NF-UID: 26.48 x 33.21 x 2.83
Active sensing area (mm)	11.9 x 16.9
Optical equivalent resolution	500 ppi (demonstrated by test per PIV specification)
Pixels	180 x 256
Gray scale levels	256
Image scan time	0.53 s
Finger detection	Hardware-assisted, low power
Total process time MINEX extraction and PID block creation	< 1s (depends on host)
Power supply	5.0 V (USB)
Current consumption	75 mA (typical); < 150 mA (max)
Standby current consumption	< 500 µA
Logical Interface	USB 2.0 full-speed
Physical Interface	6 pin FFC connector
MINEX template extractor	Innovatrics ANSI/ISO SDK v2.03, MINEX 3 certified
Biometric error rates	< 2% FNMR @ 0.01% FMR
Ingress Protection	Ready for IP55
ESD protection	±8 kV contact discharge , ±15 kV air discharge, according to IEC 61000-4-2
Mechanical durability	2 million touches @ 2.45N
Scratch resistance	Durable lifetime coating, hardness > 9H
Operating conditions	-10 °C to +60 °C at 95% RH (non condensing)
Storage conditions	-20 °C to +70 °C at 95% RH (non condensing)
Module designed to enable	CE, FCC, RoHS, WEEE, STQC for UIDAI
Sensor Module offerings	Flat bezel: NB-2023-U-NF-UID