

NEXT BIOMETRICS NB-2033-U2



The NEXT Biometrics NB-2033-U2 is a high quality, bezel-less fingerprint area sensor module designed for easy integration into end products such as notebooks and tablets.

It relies on the NEXT 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 sensor module works with the patented NEXT Active Thermal[™] principle. The sensor technology is tolerant to dirt, grease, moisture and varying environmental conditions. The large active area of the NB-2033-U2 allows stable imaging, optimal finger placement, and intuitive user operation, making it the perfect solution for mass market applications in need of both security and convenience.

The NEXT technology enables an economical production process and makes a quality sensor available to price sensitive applications without compromising functionality or performance.

NEXT Biometrics offers a turnkey biometric subsystem by providing hardware drivers and a NEXT-certified partner algorithm for a variety of host platforms.

APPLICATION EXAMPLES

- Notebooks
- Tablets
- USB peripheral devices

TECHNICAL SPECIFICATIONS

Sensor technology	NEXT Active Thermal™ sensing (patented)
Total dimensions	20.9 × 27.37 × 2.53 mm3 (including connector)
Active sensing area	11.9 × 16.9 mm ²
Pixels	180 × 256
Resolution	385 ppi
Gray scale levels	256
Image scan time	0.60 s
Finger detection	Hardware-assisted, low power
Status indicator	External LED via GPIO (sink current)
Power supply	5.0 V
Scan current consumption	75 mA (typical)
Suspend current consumption	500 μA (typical)

Module start-up time after enumeration	250 ms
Weight of the module	3.17 g
Logical Interface	USB 2.0 full speed
Physical interface	6 pin FFC connector
Ingress protection	Designed to enable IP68 rating in end products
ESD protection	±8 kV contact discharge, ±15 kV air discharge per IEC 61000-4-2
Mechanical durability	> 2 million touches
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)

