The NEXT Biometrics NB-2023-S is a high quality fingerprint area sensor module designed for integration into custom application products including notebooks, tablets, time and attendance terminals and card readers. It relies on the NEXT 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 allows stable imaging, intuitive user operation and and is ideally suited for mass market applications in need of both security and convenience.

The NEXT technology enables an economical production process that makes quality sensors 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
- Time and attendance terminals
- Smart card reader
- Physical access control terminals
- Portable hard drives
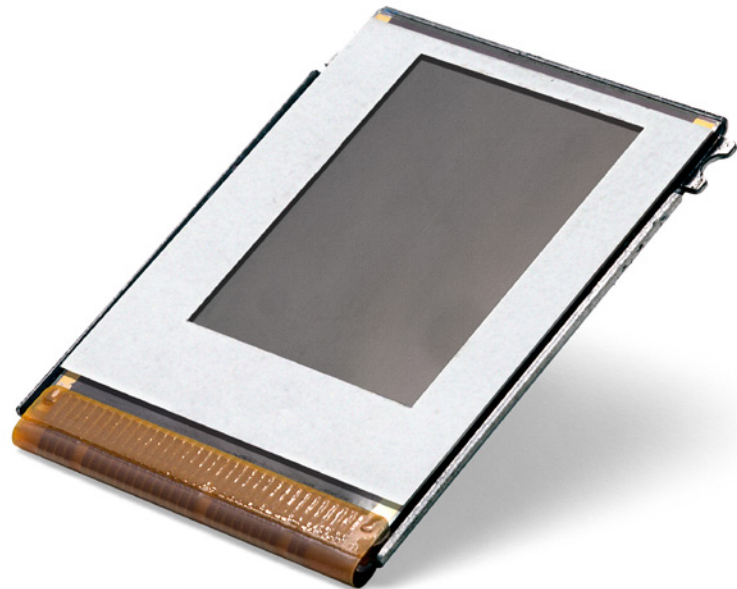
TECHNICAL SPECIFICATIONS

Sensor technology	NEXT Active Thermal™ sensing (patented)
Total dimensions in mm	20.9 x 27.39 x 2.97 (including connector)
Active sensing area in mm	11.9 x 16.9
Pixels	180 x 256
Resolution	385 ppi (pixel size 66 µm * 66 µm)
Gray scale levels	256
Image scan time	0.53 s
Power supply	3.3 V
Scan current consumption (typical)	90 mA
Standby current consumption (maximum)	30 µA
Logical Interface	SPI 4-8 Mbps
Physical Interface	12-pin FFC connector
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	-20 °C to +60 °C at 95% RH (non condensing)
Storage conditions	-20 °C to +70 °C at 95% RH (non condensing)
The sensor is designed to enable	CE, FCC, RoHS and WEEE product certifications
Sensor Module offerings	Standard tape: NB-2023-S-X IP55 tape: NB-2023-S-V