

FPC-AM3 Area Sensor Module

Product Sheet



FINGERPRINTS

Features

- Embedded stand-alone fingerprint identification system
- Extremely easy to integrate minimizing time-to-market
- Small size
- Thick and hard protective sensor coating, scratch and ESD resistant
- One-To-One verification mode
- One-To-Many identification mode (recommended limit: 500 templates)
- Onboard template storage (991 templates)
- Straightforward serial command interface
- Download/upload template functionality

Application examples

- Access control systems
- Time & Attendance
- Locks, safes
- POS terminals



General description

The FPC-AM3 module acts as a biometric sub-system with onboard template storage.

Integrating the FPC-AM3 module into a product drastically reduces time-to-market with its easy-to-integrate serial command interface and proven robust fingerprint sensor solution.

FPC-AM3 features the robust fingerprint sensor FPC1011F, with its new hard protective coating. The coating protects the sensor against ESD well above 15 kV, as well as scratches, impact and everyday wear-and-tear. The sensor FPC1011F with its 3D pixel sensing technology can read virtually any finger; dry or wet.

FPC-AM3 can easily be integrated into virtually any application and be controlled by a host sending basic commands for enrolment and verification via the serial interface. FPC-AM3 comes preloaded with software and is ready to use at delivery. Fingerprint templates are automatically created and stored in the internal flash memory. Templates used for verification can also be imported from an external storage, e.g. central database, smart card or portable flash memory.

FPC-AM3 can be connected to a host via a board-to-board connector or by using a standard ribbon cable.

Quick reference data

PARAMETER		VALUE
Dimension	(L x W x T)	40 x 23 x 6 mm (Processor board)
Number of templates		991*
Verification time	(1:1)	0.2 s (typical)
Identification time	(1:150)	1.0 s (typical)
Enrolment time		7.0 s (typical)
False-Rejection-Rate	(FRR)	Adjustable, Data dependent
False-Acceptance-Rate	(FAR)	Adjustable from 1/1,000 to 1/100,000
Interface		Serial UART or SPI
Supply voltage		2,5 - 3.3 VDC
Average Supply current active 3,3 V		70 mA @ full speed 25 mA @ half speed
Supply current idle mode 3,3 V		10 mA
Supply current sleep mode 3,3 V		35 µA
Active sensing area		10.64 x 14.00 mm
Pixel resolution		256 gray scale values (8 bit)
ESD protection		> 15 kV
Wear-and-tear		> 1 million wear cycles

* Recommended number of templates during Identification: <500

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