

SA-4ii

OEM Fingerprint Module

The SA-4ii, Cogent's latest fingerprint OEM module, features a state-of-the-art DSP processor providing increased performance and power efficiency. Designed specifically for OEM devices that require highly secure biometric authentication and identification (time and attendance or access control) the SA-4ii OEM module is 100% backwards compatible with the previous generation of SA-4 OEM modules.

Supplied with a 500 ppi fingerprint sensor, the SA-4ii OEM module has built-in commands to facilitate the integration of biometric components into new or existing products. The SA-4ii OEM module also features an RS232 port and a TTL port to facilitate communication with a wide array of input devices, such as a PC host or a magnetic stripe, contact, or contactless smart card reader.

The SA-4ii OEM module uses a unified template that is compatible with 1:1 authentication and 1:N identification algorithms, eliminating the need to re-enroll users when switching between authentication and identification modes.

Cogent's matching algorithm, which ranked first in Native Performance in the NIST MINEX (Minutiae Interoperability Exchange) II Test of April 30, 2009, supports multiple template formats, including ANSI-378, ISO-19794-4, PIV, and Cogent templates to provide greater flexibility.

- 500 ppi fingerprint sensor
- Built-in AES 256 bit encryption
- RS232 and TTL ports
- 1:1 authentication and 1:N identification





SA-4ii™

Technical Specifications and Features

Dimensions	2.2 x 1.4 x 0.3 in. (55.0 x 36.1 x 7.6 mm)	Template Storage with 8 MB Flash	8,000 for 1:1 (784 bytes) 2,000 for 1:N (784 bytes) 17,000 (MMF) 20,000 (ANSI-378, average size)
CPU	600 MHz DSP	Search Speed	Up to 1,500 templates per second
Memory	8 MB Flash 32 MB SDRAM	Security Level	Configurable
Power	5.0 VDC, 300 mA regulated	Image Data Compression	JPEG compression ratio: ~ 8:1 WSQ compression ratio: configurable
Operating Temperature	32° - 104° F (0° - 40° C)	Encryption	AES 256
FRR	0.1% - 0.001%	I/O Interface	one RS232 port, one TTL port
FAR	0.1% - 0.01%	RS232 Baud Rate	9600 to 115 kbps programmable
Enrollment Method	Single finger, multi-touch enrollment	Supported Sensors	UPEK TCS1 UPEK TCS1 with EIM (for PIV)
Enrollment Time	1.5 seconds	Templates Supported	ANSI-378 ISO-19794-4 PIV decoder/matcher Cogent 784 Cogent MMF
Verification Time	500 ms for 1:1 600 ms for 1:N	Certification	RoHS Compliant
Allowable Finger Rotation	+/- 15° for 1:N +/- 180° for 1:1	Configuration Options	SA-4 board only or SA-4 board with fingerprint sensor, connector cable, and sensor mask
Template Size	784 bytes 500 bytes (MMF) ANSI-378 flexible	Hardware Development Kit	OEM Development Kit (sold separately)