

# AMF 500

## Optical Fingerprint Scanner



AMF 500 optical fingerprint module is a high-performance security fingerprint module . It is an intelligent module with functions such as fingerprint entry, image processing, fingerprint comparison (including 1:1 and 1:N), search and template storage.

The product adopts standard USB communication and cooperates with SDK development kit. It has outstanding performance in ease of use and durability indicators, is stable and has a long service life, and has good adaptability to harsh conditions such as high and low temperatures, wind and sand.

Combined with our company's fingerprint algorithm, it can collect fingerprints normally and has good comparison effects on dry, cracked, dirty, wet and other conditions.

### Product Features

- ★ Fingerprint collection: collect images of fingers and store them in RAW, BMP and other data formats
- ★ Fingerprint comparison: support 1:1 and 1:N
- ★ Feature processing: process the collected fingerprints and generate fingerprint feature data
- ★ High anti-counterfeiting: has strong ability to distinguish fake fingerprints
- ★ Strong adaptability: can collect fingerprints normally and has good adaptability to dry, cracked, dirty, wet and other conditions
- ★ Easy development: standard USB interface, source code SDK provided

# Parameters

Category	Parameter	Description / Value
Electrical	Communication Interface	Wired, USB 1.1/2.0
	Supply Voltage	5V (Typical), Range: 4.2V 7.0V;3.3V (Customized Version), Range: 3.0V 3.6V
	Operating Current	40mA (Typical), Peak Current: 80mA
Performance	Fingerprint Sensor Type	Optical (FAP20 or higher), scratch resistant
	Image Size	As per FAP20 Standard
	Window Size	17.5 × 22.0 mm (W × L)
	Active Area Size	15.24 × 20.32 mm (W × H)
	Housing Size	59.1 × 32 × 14.55 mm
	Image Resolution	300 × 400 pixels
	Image DPI	500 DPI
	Matching Mode	Verification (1:1), Search (1:N)
	Feature Size	512 bytes
	Template Size	512 bytes
	Security Level	256-bit AES fingerprint data encryption
	False Acceptance Rate (FAR)	< 0.001% (at Security Level 3)
	False Rejection Rate (FRR)	< 0.005% (at Security Level 3)
	Search Time	< 1.0 second (average for 1:1000)
	Supported Fingerprint Template Formats	ISO 19794-2, ANSI 378
	SDK	Android SDK (Java/Kotlin) compatible with Android OS versions from 10 onward, Windows versions from 7 onward . NET framework 4.0+, and Linux with complete English documentation and sample integration guide.
	Compliance / Certifications	Compliance with Industry Standards CE / FCC / RoHS or equivalent and ISO/IEC 19794-2, FBI PIV.
	IP Level	IP65
	Power Requirements	USB-Powered
Accessories	USB-A (Female) to USB-C (Male) OTG Adapter, USB cable and other standard accessories etc.	
Warranty	One (1) year part and replacement warrant on site.	
Environment	Operating Temperature	-30°C to +70°C
	Storage Temperature	-40°C to +80°C
	Operating Humidity	20% to 90% RH (non-condensing) 0%
	Storage Humidity	to 95% RH