

# FC2062AV30-FS11(P)/FS20

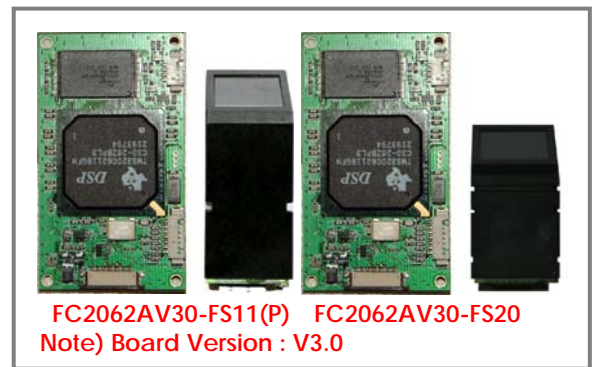
## FIMODULE Product Sheet

### KEY FEATURES

- Embedded Stand-alone Fingerprint Identification Module
- Verification (One-To-One) and Identification (One-To-Many)
- Onboard Template & Record Data Storage
- Simple Serial RS-232C/CMOS Interface
- Downloading/Uploading Template from/to Host
- Easy to integrate giving minimal Time-To-Market

### APPLICATION

- Fingerprint based access control systems & door-lock
- Fingerprint personal identification system
- Time attendance system using fingerprint
- Fingerprint based machine control
- Fingerprint based weapon control system
- Fingerprint based car locks



### DESCRIPTION

**IZZIX FingerENGINE** in FIModule follows the commonly accepted fingerprint identification scheme, which uses a set of specific fingerprint feature points (minutiae). However, it contains many powerful algorithmic solutions, which enhance the system performance and reliability. Some of them are listed below:

- Quality Check of Fingerprint Image
- Fully Tolerant to Fingerprint Distortion and Rotation(360°)
- Classification Feature by Global Feature Vector
- Efficient Feature Extraction
- Fingerprint Enroll Mode with Feature Collection
- Suitable Algorithm to 1:1 and 1:N Mode

And, FIModule acts as a biometric subsystem with template & record data storage. FIModule can be used to any fingerprint application and be controlled by a host sending/receiving command via the standard serial interface. FIModule makes fingerprint templates and stores directly in flash memory. Templates can also be exported for external memory and be imported by external fingerprint device and IZZIX FingerENGINE algorithm (ex, IZZIX FD1000).

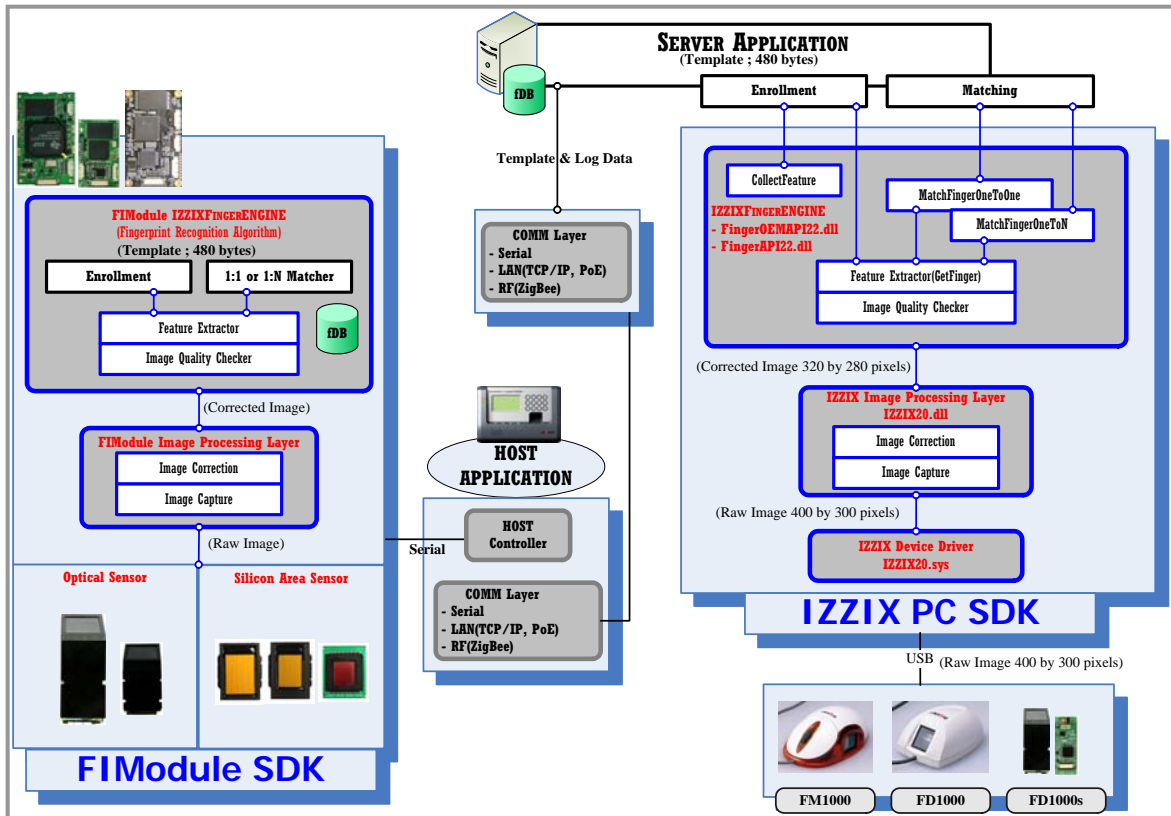
### QUICK SPECIFICATION

		Enrolled Fingerprints	Matching OK
Response Time(sec)	1:1 Mode		< 0.40
	1:N Mode	500	< 0.60
		1,000	< 0.80
		2,000	< 0.97
	3,000	< 1.22	
FAR(False Acceptance Rate)	< 0.0001 %		
FRR(False Rejection Rate)	< 0.1 %		
Matching Mode	Identification(1:N Mode), Verification(1:1 Mode)		
Times of Enrollment	3 times ⇒ 1 feature data/1 user		
Number of Fingerprint & Record		Fingerprint	Record
	2M Flash ROM	3,000	8,000
User Data Size	512 Bytes (= 480 Bytes Template Data + 32 Bytes Header Data)		
Record Data Size	16 Bytes		
Start-up Time	Reset Time	300 msec	300 msec

Digital Signal Processor	TI TMS320C6211		
Fingerprint Board	FB2062AV30-OPT1 (Board Version : V3.0)		
Optical Fingerprint Sensor	FS11(P)/FS20, CMOS CIF Image Sensor		
Dimensions & Weight	FB2062AV30-OPT1	65 × 37 × 8 mm	< 15 gr
	FS11(P)	20.5 × 25 × 55 mm	< 40 gr
	FS20	20.5 × 25 × 42 mm	< 32 gr
Window Size	18.8 × 16 mm		
Resolution	500 DPI		
Operating Voltage	5V DC		
Power Consumption	240mA (Sensing Mode)		
Temperature/Humidity	0°C ~ 40°C / 15% ~ 80 %		
External Interface	7Pin Connector : RS232C Level UART		

*This specification is subject to change without prior notice.*

*November 14, 2007*



### Ordering Information

#### •FC2062AV30 Module Series

FC2062AV30 – x1 – x2 x3 x4 x5 (Board Version :V3.0)

FC20	Algorithm Version V20 series	
62AV30	DSP TMS320C6211 and Board Version V3.0	
① x1	CMOS CIF Optical Image Sensor	FS11(P)/FS20 by DIGENT
② x2	Communication Interface (Hardware)	R : RS232C
③ x3	Flash Memory Capacity (Number of Fingerprints)	M2 : 2M Byte (3000 Fingerprints)
④ x4	Supply Voltage	V50 : 5.0 Volt
⑤ x5	Total Length(TL) and Insulation Length(IL) of FFC Cable : TL(IL) L160 / L120 / L80 -> 160(150) / 120(110) / 80(70)mm	

FIModule	Fingerprint Board
FC2062AV30 – FS11(P) – RM2V50L160(L120, L80)	FB2062AV30 – OPT1
FC2062AV30 – FS20 – RM2V50L160(L120, L80)	

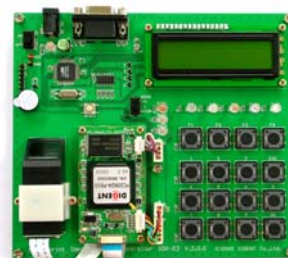
(Note) FS10 sensor is EOL(End Of Life) status, so FC2062A-FS10 (Board Version V2.3) is EOL.  
But, FS10 sensor can be used in FB2062AV30 series.

#### •FC2062AV30 SDK

FC20 SDK-E1 (62AV30-FS11(P)/FS20)



FC20 SDK-E2 (62AV30-FS11(P)/FS20)



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