

FC2062BL-FS11P/FS20

FIMODULE Product Sheet

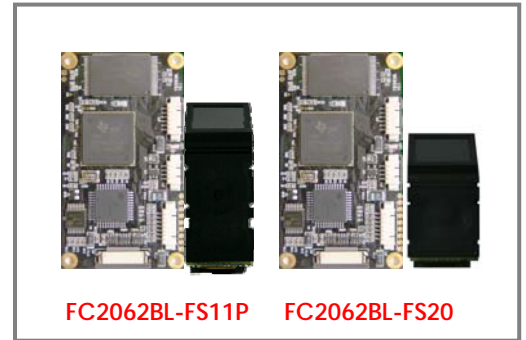


KEY FEATURES

- 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
- Efficient Feature Extraction
- Fully Tolerant to Fingerprint Distortion and Rotation(360°)
- Fingerprint Enroll Mode with Feature Collection
- Classification Feature by Global Feature Vector
- 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				< 0.3
		1,000			< 0.9
	1:N Mode	2,000			< 1.0
		3,000			< 1.2
		5,000			< 1.3
		10,000			<1.3 or < 2.6+MLTime
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		Feature Collection Mode, FCMode		3 times ⇒ 1 feature data/1 user	
		Feature Exclusive Mode, FEMode		n times(normally n = 5) ⇒ n feature data/1 user	
Memory Size		8Mbytes FlashROM			
Number of Fingerprint & Record		FCMode		5,000 / 10,000	
		FEMode (if E _T = 5)		1,000 / 2,000	
User Data Size		512 Bytes (= 480 Bytes Template Data + 32 Bytes Header Data)			
Record Data Size		16 Bytes			
Start-up Time	Reset Time	800 msec		600 msec	

*) MLTime : Memory Loading Time of Secondary DB(Size = 5,000)

Digital Signal Processor	TI TMS320C6205					
Fingerprint Board	FB2062BL-OPT1					
Optical Fingerprint Sensor	FS11P/FS20, CMOS CIF Image Sensor					
Dimensions & Weight	FB2062BL-OPT1		65×37×7 mm		< 13 gr	
	FS11P		20.5×25×55 mm		< 40 gr	
	FS20		20.5×25×42 mm		< 32 gr	
Window Size & Resolution	18.8×16 mm, 500DPI					
Operating Voltage	5V DC					
Power Consumption	Standby	210mA	Sensing	220mA	PowerOff	<7uA
	PowrDown1	160mA	PowrDown2	70mA	PowrDown3	67mA
Temperature/Humidity	0°C ~ 40°C / 15% ~ 80%					
External Interface	- 7Pin Connector : RS232C Level UART					
	- 9Pin Through Hole Connector : RS232C or CMOS Level UART					

This specification is subject to change without prior notice.

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DIGENT - Advanced Fingerprint Security Solution

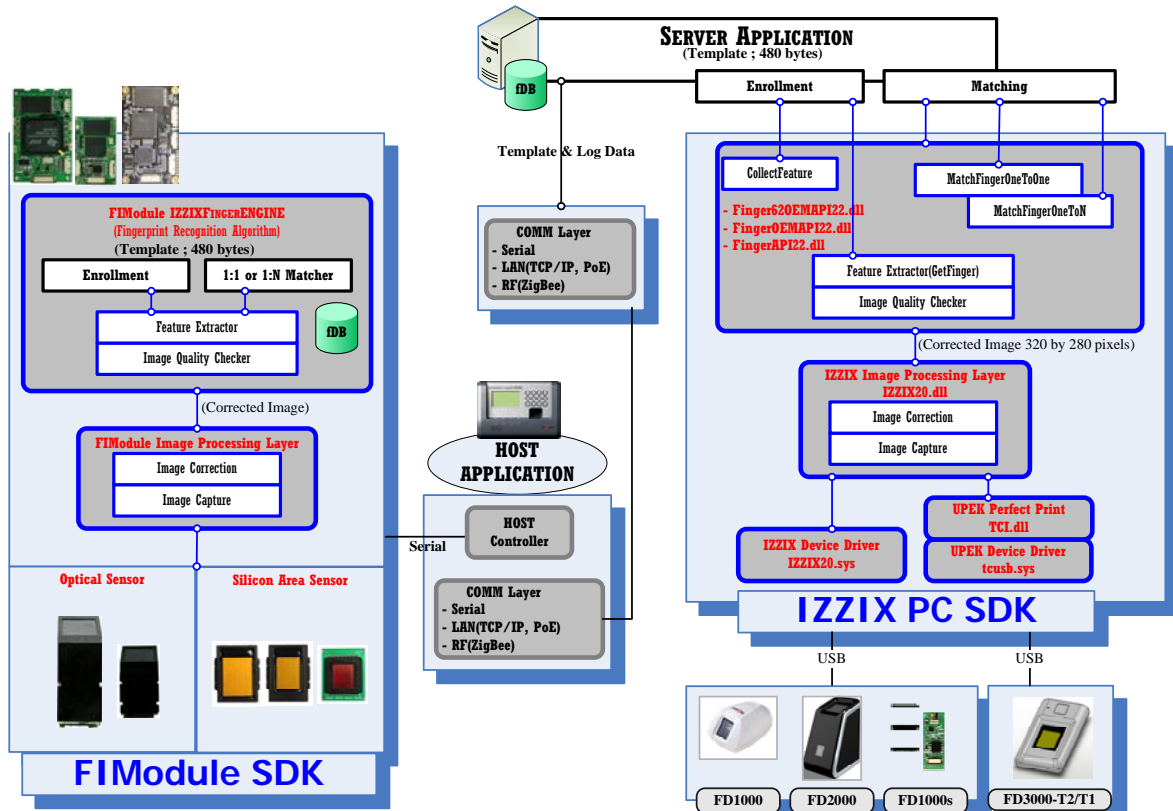
Rev. 2.0

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Refer to Manual for details and usage specification.

FC2062BL-FS11P/FS20

FIModule Product Sheet



Ordering Information

•FC2062BL Module Series

FC2062BL – x1 – x2

FC20	Algorithm Version V20 series	
62BL	DSP TMS320C6205	
① x1	CMOS CIF Optical Image Sensor	FS11P/FS20
② x2	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
FC2062BL – FS11P – L160(L120, L80)	FB2062BL – OPT1
FC2062BL – FS20 – L160(L120, L80)	

Note) The sensor FS10/FS11 is EOL(End Of Life) status, so the module FC2062BL-FS10/FS11 is EOL.

But, the FS10/FS11 sensor can be used in the board FB2062BL.

•FC2062BL SDK

FC20 SDK-E2 (62BL-FS11P, 62BL-FS20)

