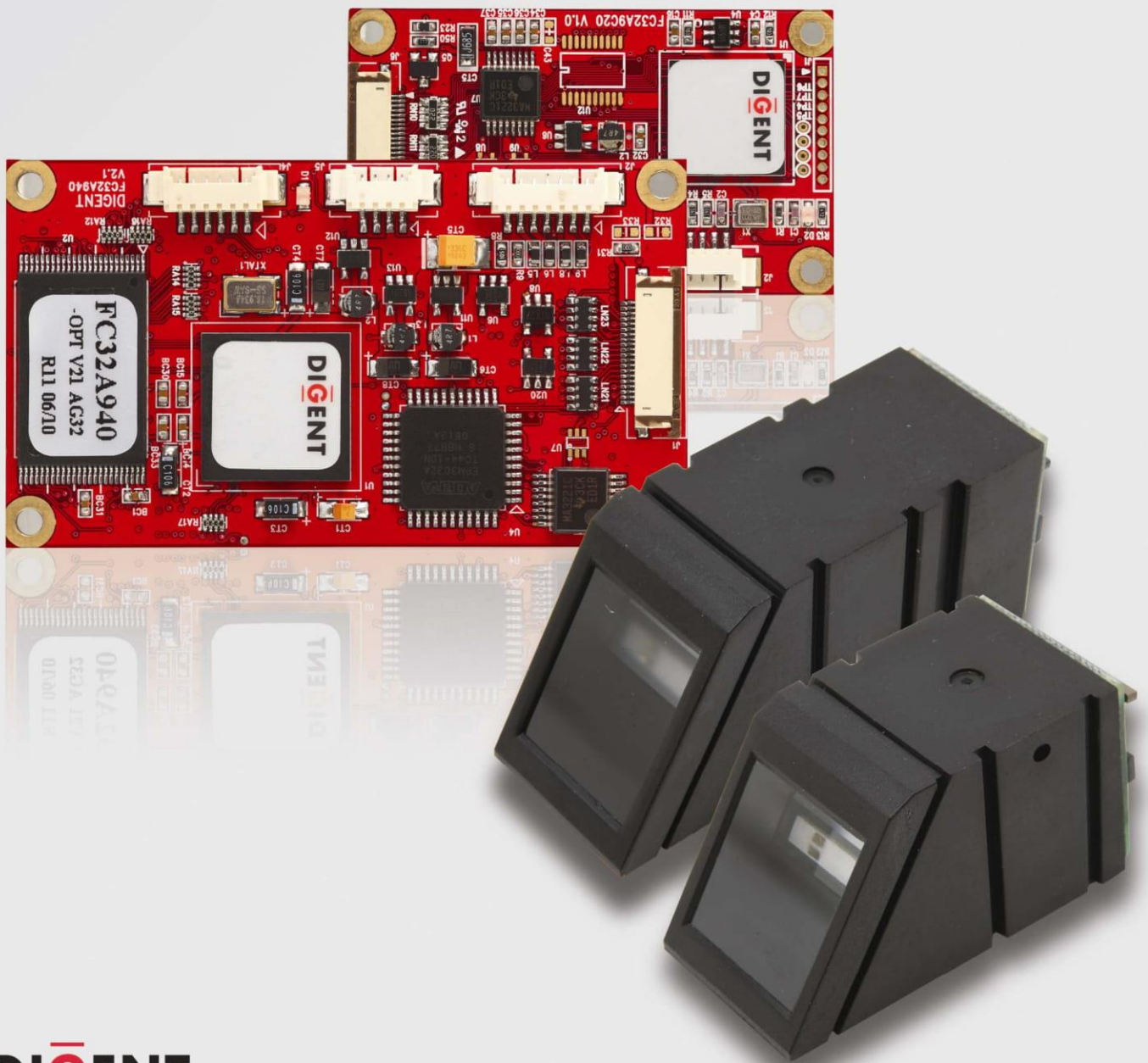


IZZIX FIModule- Optical Sensor Series

Fingerprint Total Solution Provider

*ARM-based
Fingerprint Identification **Module***



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FI Module Optical Sensor Series

● 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

● RESPONSE TIME (sec)

		Enrolled Fingerprints	FC32A9C20-FSxx	FC32A940-FSxx
		(Capture + Extract) Time	< 700ms	< 640ms
Matching Time(sec);	1:1 Mode		< 60 ms	< 60 ms
	1:N Mode	100	< 100 ms	
500		< 250 ms	< 0.3 s	
1,000		< 500 ms	< 0.6 s	
2,000		< 1.2 s	< 1.3 s	
3,000			< 1.7 s	
4,000			< 2.0 s	
		5,000		< 2.4 s

● SPECIFICATION

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 fingerprint		
Number of Fingerprint & Record		Fingerprint	Record
	FC32A9C20-FSxx	2,000	15,000
	FC32A940-FSxx	5,000	65,500
User Data Size	512 Bytes (= 480 Bytes Template Data + 32 Bytes Header Data)		
Record Data Size	16 Bytes		
Start-up & Reset Time	FC32A9C20-FSxx	(number of enrolled fingerprints = 100ea) < 1.6 sec (number of enrolled fingerprints = 500ea) < 2.1 sec (number of enrolled fingerprints = 1,000ea) < 2.6 sec	
	FC32A940-FSxx	< 0.5sec	
Processor	FC32A9C20-FSxx	CLM6520, 32-bit ARM926EJS RISC processor (266MHz)	
	FC32A940-FSxx	SAMSUNG S3C2440AL-40, 32-bit ARM920T RISC processor (400MHz)	
Fingerprint Board	FC32A9C20-FSxx	FB32A9C20-OPT1	
	FC32A940-FSxx	FB32A940-OPT1	
Optical Fingerprint Sensor	FS11P/FS20, CMOS CIF Image Sensor		
Dimensions & Weight	FB32A9C20-OPT1	51×30×8.5 mm	< 8 gr
	FB32A940-OPT1	65×37×8 mm	< 14 gr
	FS11P	20.5×25×55 mm	< 40 gr
	FS20	20.5×25×42 mm	< 32 gr
Window Size & Resolution	16×18.8 mm, 500dpi		
Voltage & Power Consumption	FC32A9C20-FSxx	5V DC, max. < 100mA	
	FC32A940-FSxx	5V DC, < 90mA(Standby Mode), < 135mA (Sensing Mode)	
Temperature/Humidity	0°C ~ 40°C / 15% ~ 80 %		
External Interface	FC32A9C20-FSxx	7Pin Connector : RS232C Level UART(2,400~921,600 bps)	
		7Pin Connector : RS232C Level UART(2,400~921,600 bps)	
	FC32A940-FSxx	6Pin Connector : 2 nd CMOS Level UART and GPIO(3 Inports) (2,400~115,200 bps)	
		4Pin Connector ; GPIO (3 Outports for Buzzer or LED)	

※ This specification is subject to change without prior notice.

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