

AD-S10GB/C

Model No. : AD-S10GB/C

Issued Date: 2018-02-15

Version: 0.1

Preliminary Specification

Final Product Specification

The technical specification is subjected to change without notice.

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Document Version History

Rev	Issue Date	Description	Editor
0.1	2019-2-15	Preliminary release	Scott Tu

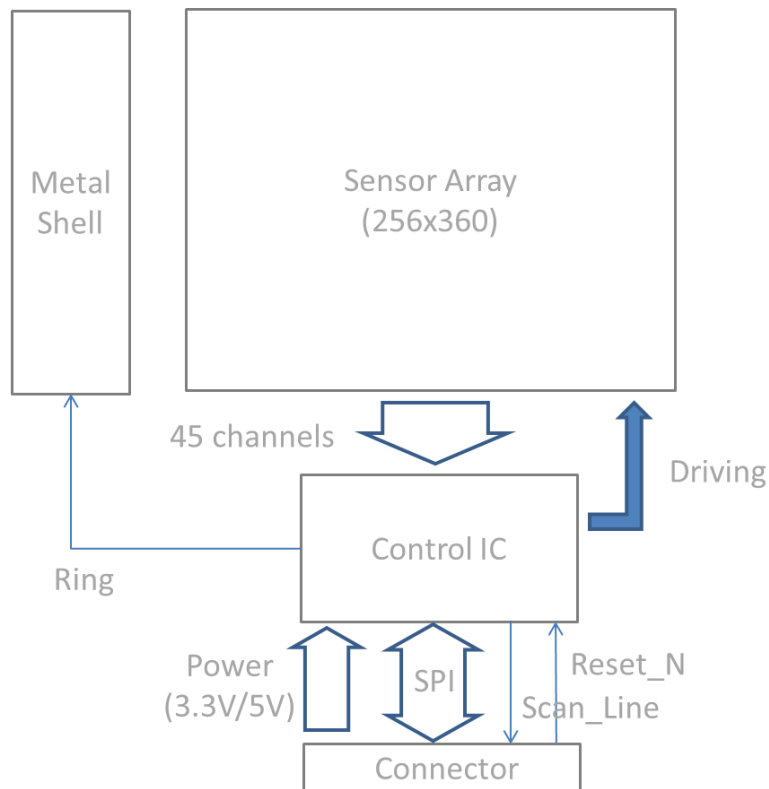
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1. General Descriptions

AD-S10GB/C is a new type of capacitance fingerprint sensor that is manufactured on the glass substrate. The active area is designed to meet FAP10 specification that is as large as 12.8x18mm², which can acquire a full fingerprint image at one touch.

AD-S10GB/C deliver high quality image that can score 1 or 2 in NFIQ score (NIST Fingerprint Image Quality) for most of the scanned fingerprint images. The special hard-coat material on top of the sensor can stand scratch of as high as 8H pencil hardness that protect the sensor from everyday wear-and-tear.

AD-S10GB/C provides SPI Interface to communicate with the control system.



Function Block Diagram

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2. General Specifications

Category	Parameter	Min.	Typical	Max.	Remark
Dimension	Length(mm)	34.80	35.00	35.20	
	Width(mm)	24.80	25.00	25.20	
	Thickness(mm, without component)	3.50	3.60	3.70	
	View area(mm)	13.60x19.00 (± 0.10)			
Feature	Active area(mm)	12.80x18.00			
	Pixels	256x360			
	Resolution(dpi)	508			
	Frame Rate	1	-	4	
Reliability	Hardness	5H	-	8H	
	Operation Temperature ($^{\circ}\text{C}$)	-10		55	
	Operation humidity			90	
	Storage temperature	-40		60	
	Storage humidity	20		90	
	ESD protection (Contact)	15kV			
	ESD protection (Air)	8kV			

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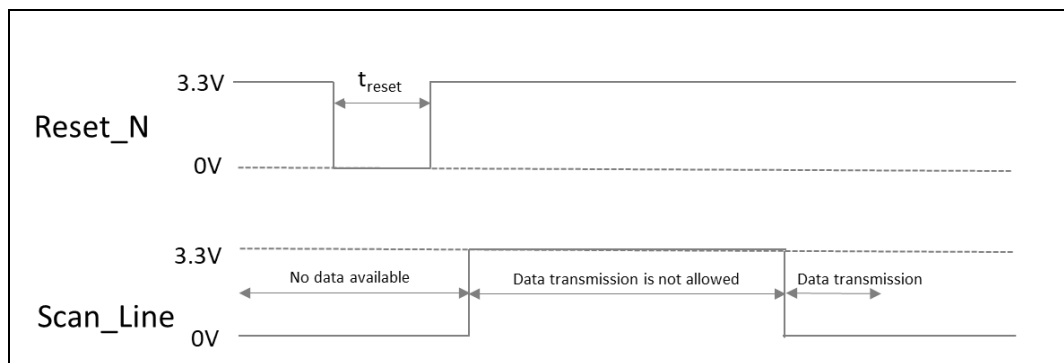
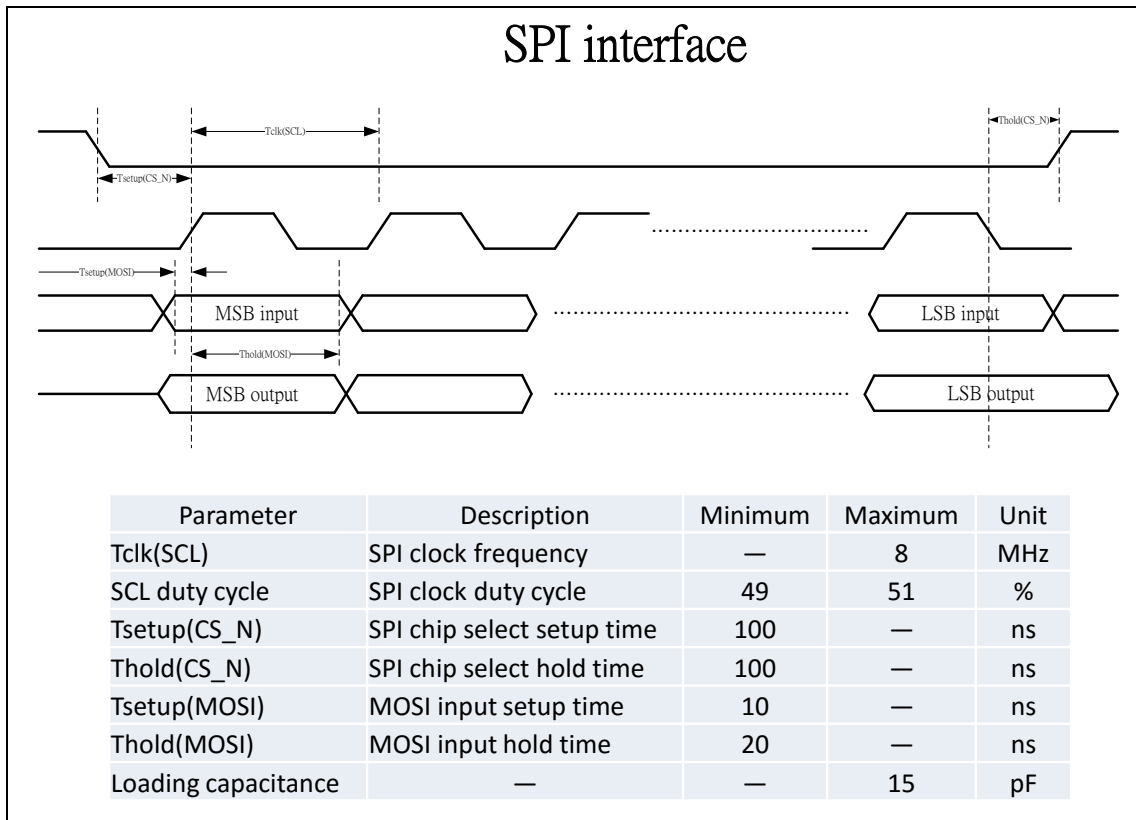
3. Input / Output Terminals

Pin No.	Pin Name	Direction	Functions
1	RESET_N	Input	Start signal
2	CS_N	Input	SPI interface chip select
3	SCLK	Input	SPI interface master clock
4	MOSI	Input	SPI interface master output, slave input
5	MISO	Output	SPI interface master input, slave output
6	Test	--	For test only
7	SCAN_LINE	Output	Data transfer availability notice
8	Test	--	For test only
9	Test	--	For test only
10	Test	--	For test only
11	VCI 3P3V	Power	DC 3.3V/150mA(max) (for Digital Circuits)
12	VPP	--	For test only
13	GND	Ground	Ground
14	5V	Power	DC 5V/50mA(max) (for Analog Circuits)
15	VGH	--	For test only
16	VGL	--	For test only

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4. Interfaces

The SPI interface's timing requirement is illustrated in the following figure.

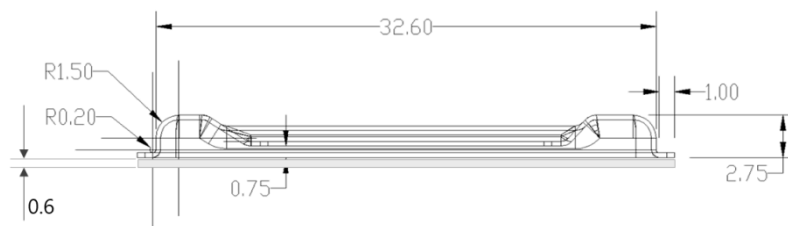
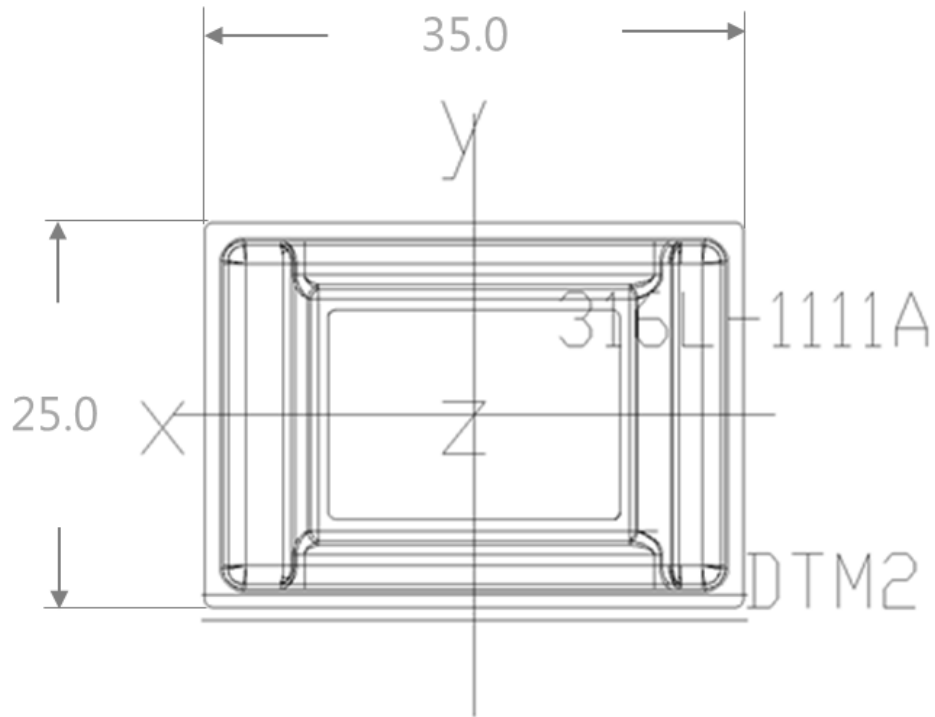


Parameter	Description	Minimum	Maximum	Unit
t _{reset}	Start Signal	1	--	ms

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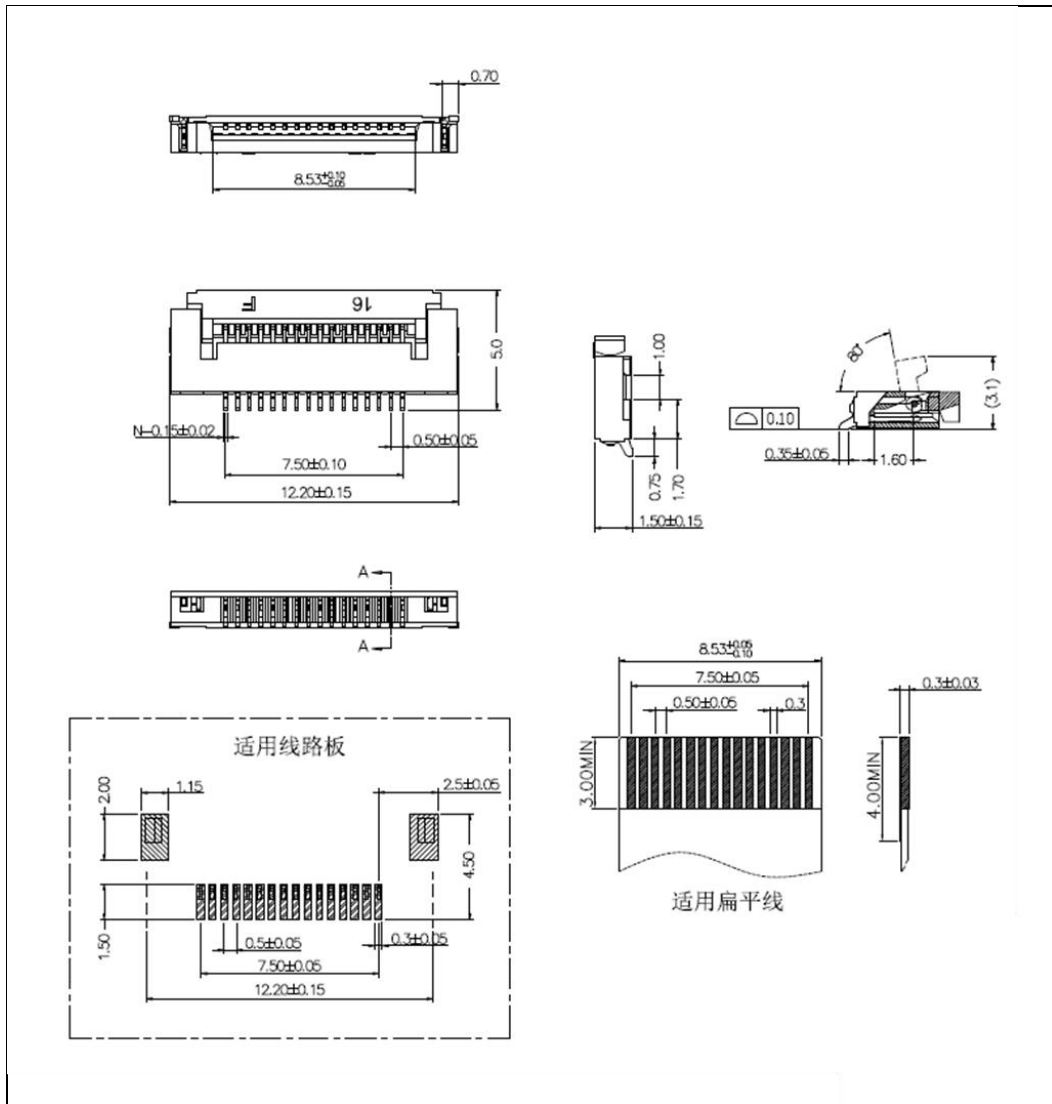
5. Mechanical Drawing

5.1 Sensor (SMT components are not included)



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5.2 Connector



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6. Package Drawing
(To be Determined)

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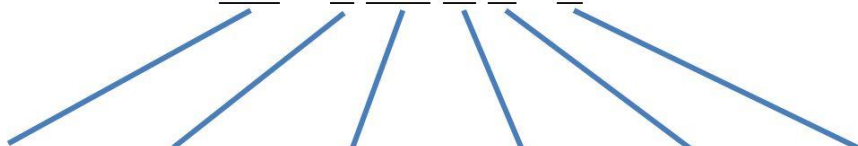
7. Precautions for Use of Sensors (To be Determined)

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8. Order Information

Part Number Naming Convention

AD - S 10 G B - 4



Company	Product	Biospecs	Substrate	Coating Color	Speed
AD: ADH Technology	S: Sensor	10: FAP10	G: Glass	B: Black	1: 1frame/s
	I: IC	20: FAP20	F: Flexible	C: Clear	4: 4frame/s
		30: FAP30			