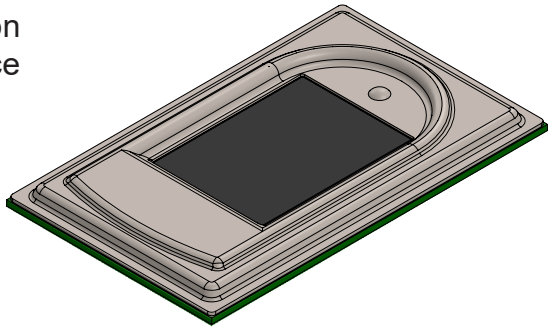
A-285-MRC
Fingerprint Module

SunASIC Technologies Inc.
Rev. 003

The A-285-MRC fingerprint module is a compact fingerprint reading module. The sensor is based on capacitive-contact technology with hardened surface and enhanced ESD immunity.



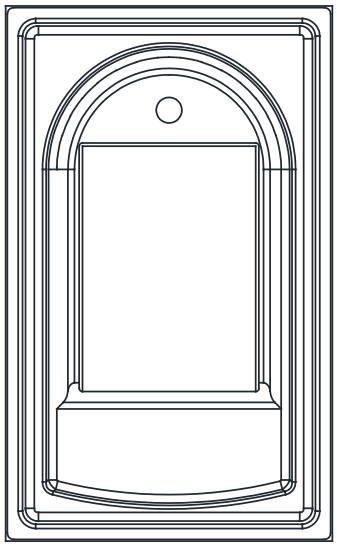
FEATURES

- 2D capacitive fingerprint area sensor
- sensor array of 288x208 pixels
- 508 DPI spatial resolution
- 8-bit pixel value / 256 gray levels
- 14.4 mm x 10.4 mm active sensing area
- High speed SPI interface
- Image capture speed up to 4 MPixel/sec
- ESD protection : + / - 15kV (Air mode)
- Low power : Normal and Stand-by modes
- > 30 million finger placements[1]
- FPC connection interface

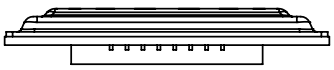
SPECIFICATION

Parameter	Value	Unit
Dimensions	33.40 x 20.40 x 2.33	mm
Dimensions (sensor)	14.40 x 10.40	mm
ESD (IEC61000-4-2, level X, air discharge)	+ / - 15	kV
Operating temperature	-20 ~ 80	℃
Extended humidity range	< 90	%
Operating voltage range	2.7~3.3	V
IO pin voltage range	1.8~3.3	V
Normal mode current	3	mA
Stand-by mode current	25	uA
Interface	SPI	

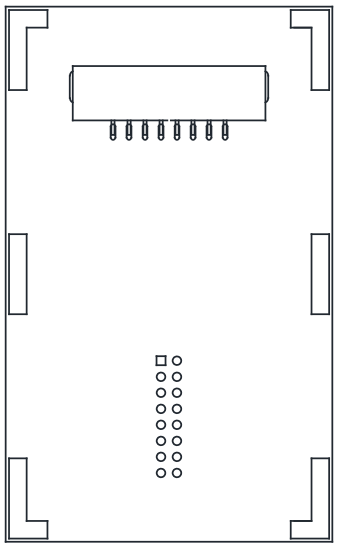
Table 1



Top View



Front View



Top View (see through)

1 Read Table 3 for more information

INTERFACE

The A-285-MRC module provides an 8 pin FPC (0.5mm contact pitch) to communicate with a host device.

PIN NO.	PAD Name	Description
1	MISO	SPI MISO
2	VDD	2.7 to 3.3V power input
3	RESET	Module reset
4	SCK	SPI CLOCK
5	VSS	Ground
6	MOSI	SPI MOSI
7	SELN	Active low signal to select the device
8	ESD	ESD pin

Table 2

Ordering information

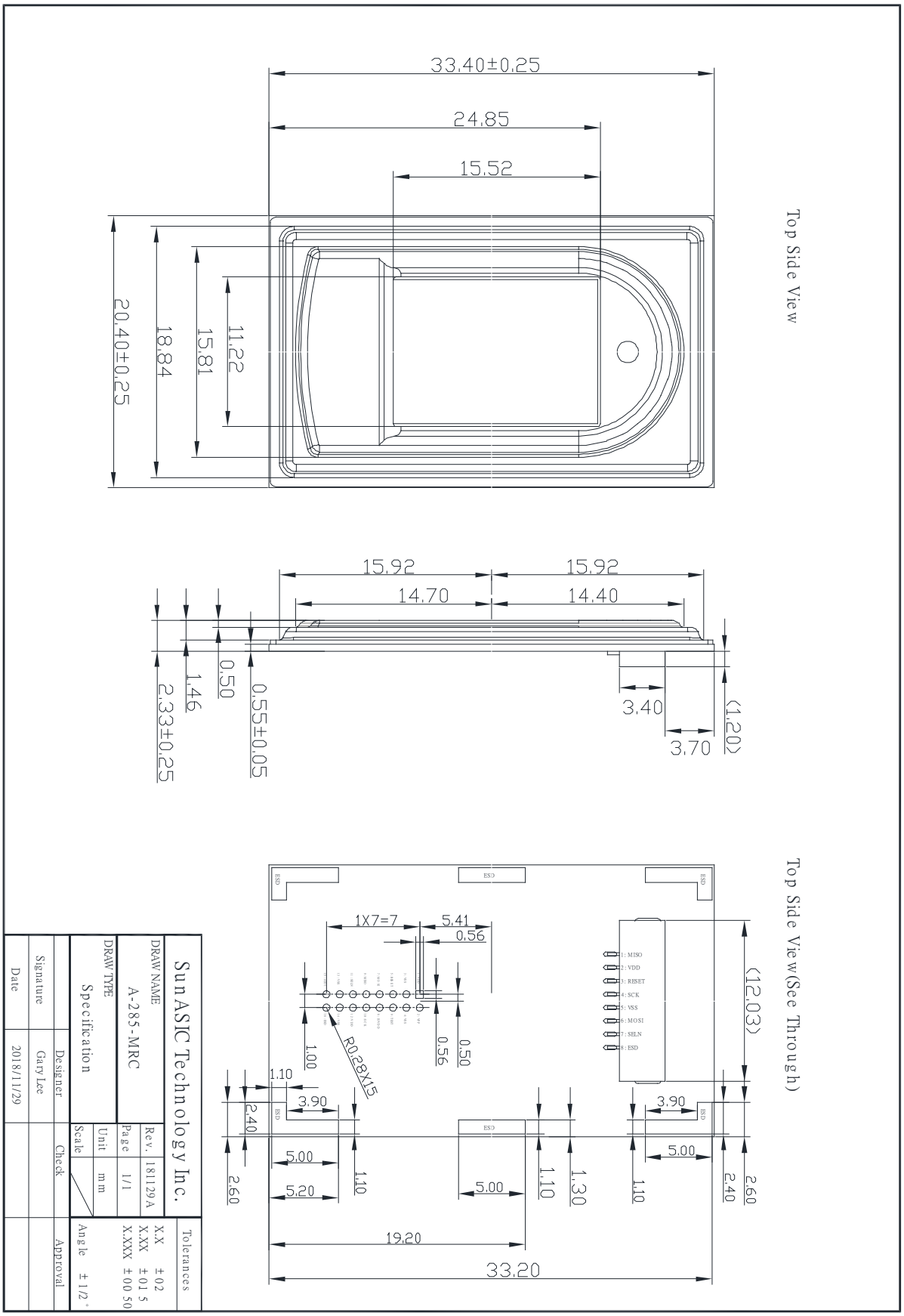
To order the A-285-MRC module line of fingerprint module, refer to Table below.

Part Number	Coating			Bezel	
	Color	RCA	Hardness	Color	Salt Spray Test
A-285-MRC-K05	Black Matte	> 1200	7H	Raw Material (Stainless Steel)	> 92hrs

Table 3

SunASIC Technologies Inc.
Web Store: www.bynewonline.com
Email: information@sunasic.com

MECHANICAL DIMENSION



Revision History

Revision	Date	Modification Description
001	2018/09/13	Preliminary Release
002	2018/10/12	Initial release.
003	2019/01/22	update Mechanical Drawing