

A-365-MRC Fingerprint Sensor

ByNew Technologies Inc.
Rev. 004



The A-365-MRC fingerprint sensor is a compact fingerprint scanner. The sensor is based on capacitive-contact technology with hardened surface and enhanced ESD immunity.

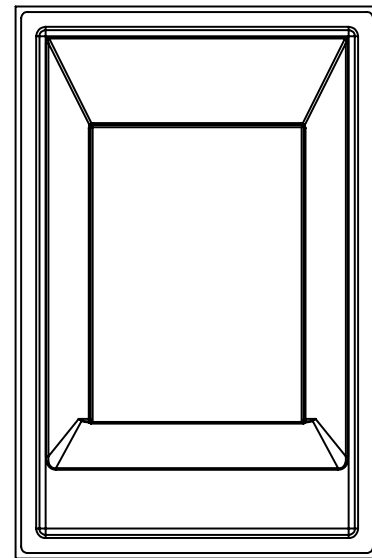
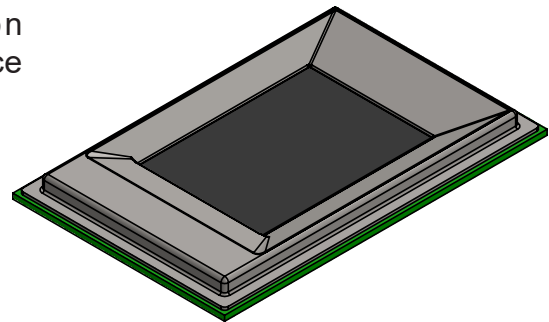
FEATURES

- 2D capacitive fingerprint area sensor
- sensor array of 360x256 pixels
- 508 DPI spatial resolution
- 8-bit pixel value / 256 gray levels
- 18.0 mm x 12.8 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 placements¹
- FPC connection interface

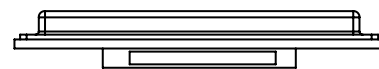
SPECIFICATION

| Parameter | Value | Unit |
|--|----------------------|------|
| Dimensions | 35.00 x 23.00 x 3.56 | mm |
| Dimensions (sensor) | 18.0 x 12.8 | mm |
| ESD (IEC61000-4-2, level X, air discharge) | + / - 15 | kV |
| Operating temperature | -20 ~ 80 | °C |
| Extended humidity range | < 90 | % |
| Operating voltage range | 2.7~3.3 | V |
| IO pin voltage range | 1.8~3.3 | V |
| Normal mode current | 3.5 | mA |
| Stand-by mode current | 50 | uA |
| Interface | SPI | |

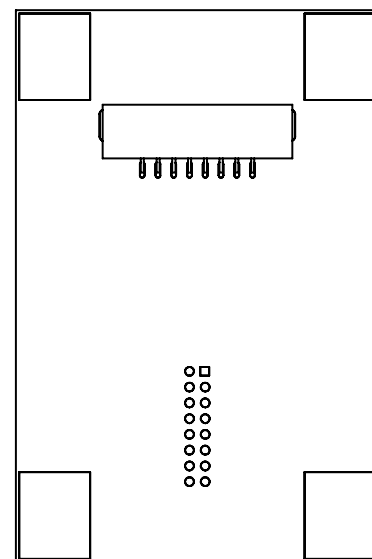
Table 1



Top View



Front View



Top View (see through)

¹ Read Table 3 for more information



INTERFACE

The A-365-MRC sensor 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 | Sensor 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-365-MRC sensor line of fingerprint scanner, refer to Table below.

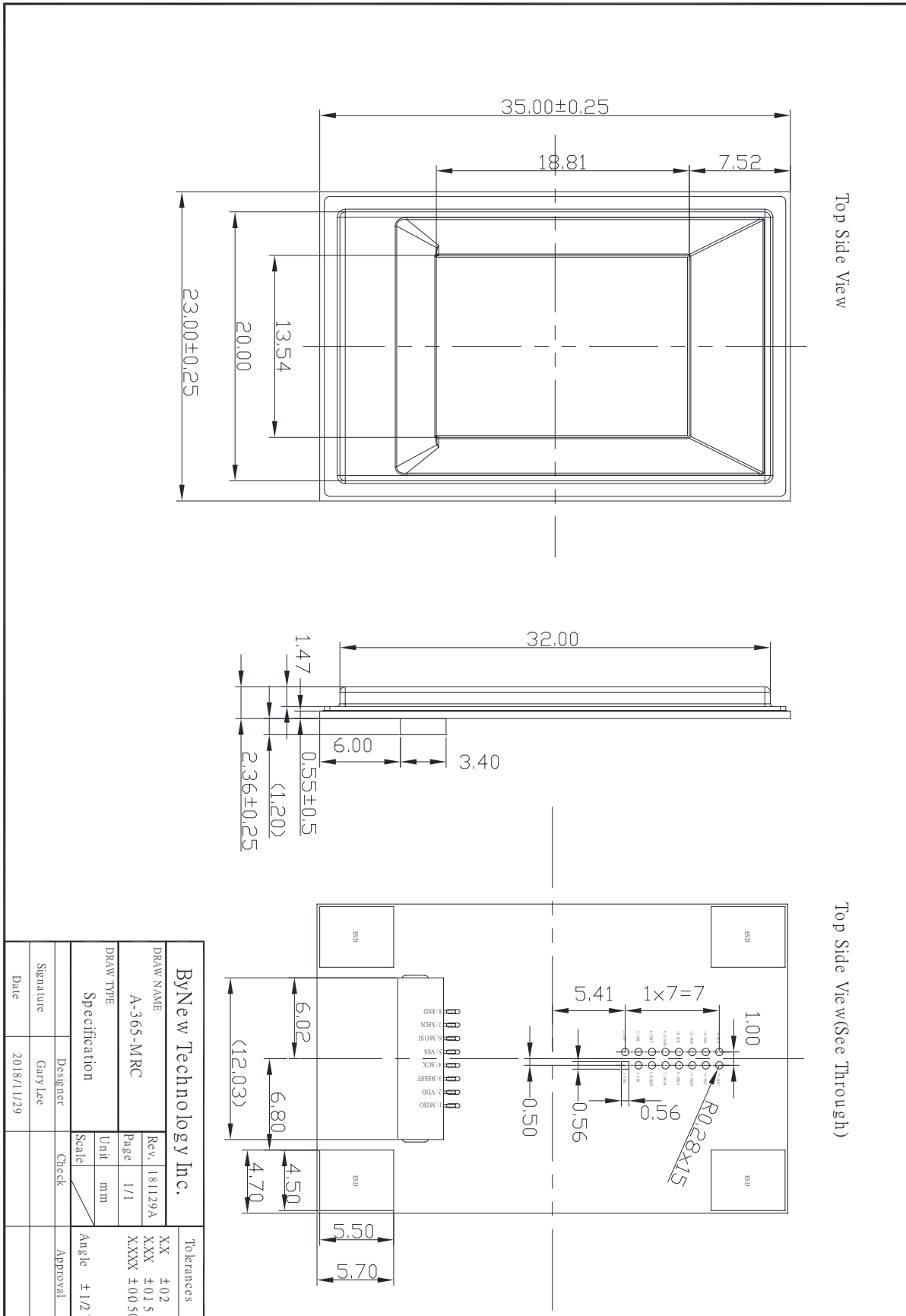
| Part Number | Coating | | | Bezel | |
|--------------------|----------------|------------|-----------------|--------------------------------|------------------------|
| | Color | RCA | Hardness | Color | Salt Spray Test |
| A-365-MRC-K05 | Black Matte | > 700 | 7H | Raw Material (Stainless Steel) | > 92hrs |
| | | | | | |

Table 3





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 |
| 004 | 2019/05/14 | update RCA information |
| | | |