



**4.3" PCAP Solution  
12039381  
eTP043W2107-CS**

Revision: 000

Date: 2020-08-27

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## 1 Scope

DATA MODUL's PCAP solution 12039381 consists of a 4.3" capacitive touch screen. Please note that this is only a sub-assembly of the final product. The specification of the final end product might differ from this specification.

## 2 Touch Sensor and Cover Glass

### 2.1 Technical Parameters

Screen size	4.3 inch / 10.9 cm
Format	wide
Composite	Glass / Film / Film with COF
Outline dimensions	123.34 x 82.14 x 1.57 mm (WxHxT)
Active area	97.04 x 56.18 mm (WxH)
Carrier glass	1.1 mm
Bending radius of tail	R = 2 mm recommended
Transmissivity	86% (min.)
Operating temperature and humidity	-20 ~70°C, ≤85% RH
Storage temperature and humidity	-30 to +80°C, ≤90% RH
Tail connector	FPC-Connector (10 pin 0.5mm pitch)

### 2.2 Reliability Tests

Low Temperature Storage Test	-40°C / 240h
High Temperature Storage Test	80°C / 240h
High Temperature / High Humidity Test	60°C / 90% RH for 240h
Thermal Shock Test	-40°C / 80°C, 60min each, 20 cycles

### 3 Touch Controller - ILI2511

The touch controller IC is provided as a COF (chip on flex) assembly.

#### 3.1 Electrical specification

Power supply	5V ± 5%
On board voltage	3.3V and 3.6V max. (subject to configuration)
Maximum power consumption	200 mA

#### 3.2 Interface specification - USB

Protocol	USB 2.0 HID specification 1.1 with amendments for multitouch digitizer
Endpoint Address	0x81(Endpoint 1); 0x82(Endpoint 2); 0x83(Endpoint 3)
Touch report	10 fingers simultaneously max.
Resolution	16384 x 9600 (x/y)
vendor ID / product ID	0x222A / depend on Device
Bus speed	12 Mbps max. (subject to configuration)

#### 3.3 Interface specification – I<sup>2</sup>C

Protocol	I <sup>2</sup> C version 2.2
Touch report	10 fingers simultaneously max.
Resolution	16384 x 9600 (x/y)
I <sup>2</sup> C address	0x41 or 0x83 or 0x82

#### 3.4 Pin Configuration

Pin	Signal	Description
1	VDD	Power Supply (5V)
2	I <sup>2</sup> C_CHG	Change
3	I <sup>2</sup> C_SDA	I <sup>2</sup> C Data input
4	I <sup>2</sup> C_SCL	I <sup>2</sup> C Clock
5	RES	Reset, active low
6	USB_DN	USB interface, D- signal.
7	USB_DP	USB interface, D+ signal.
8	N/C	<i>Do not connect</i>
9	N/C	<i>Do not connect</i>
10	GND	Ground

## 4 Optical Inspection Criteria and Handling Recommendations

### 4.1 Optical Inspection Criteria

For details on the optical inspection criteria, please refer to DATA MODULs Outgoing Spec or ask your local DATA MODUL sales representative.

### 4.2 Handling Recommendations

Precautions for operation

- Do not put a heavy, hard or sharp object on the product
- Do not bend the product in order to assure the reliability
- Do not put one product on the other. Otherwise, it may cause the product to be scratched
- Don't use any organic solvent acid or alkali solution.

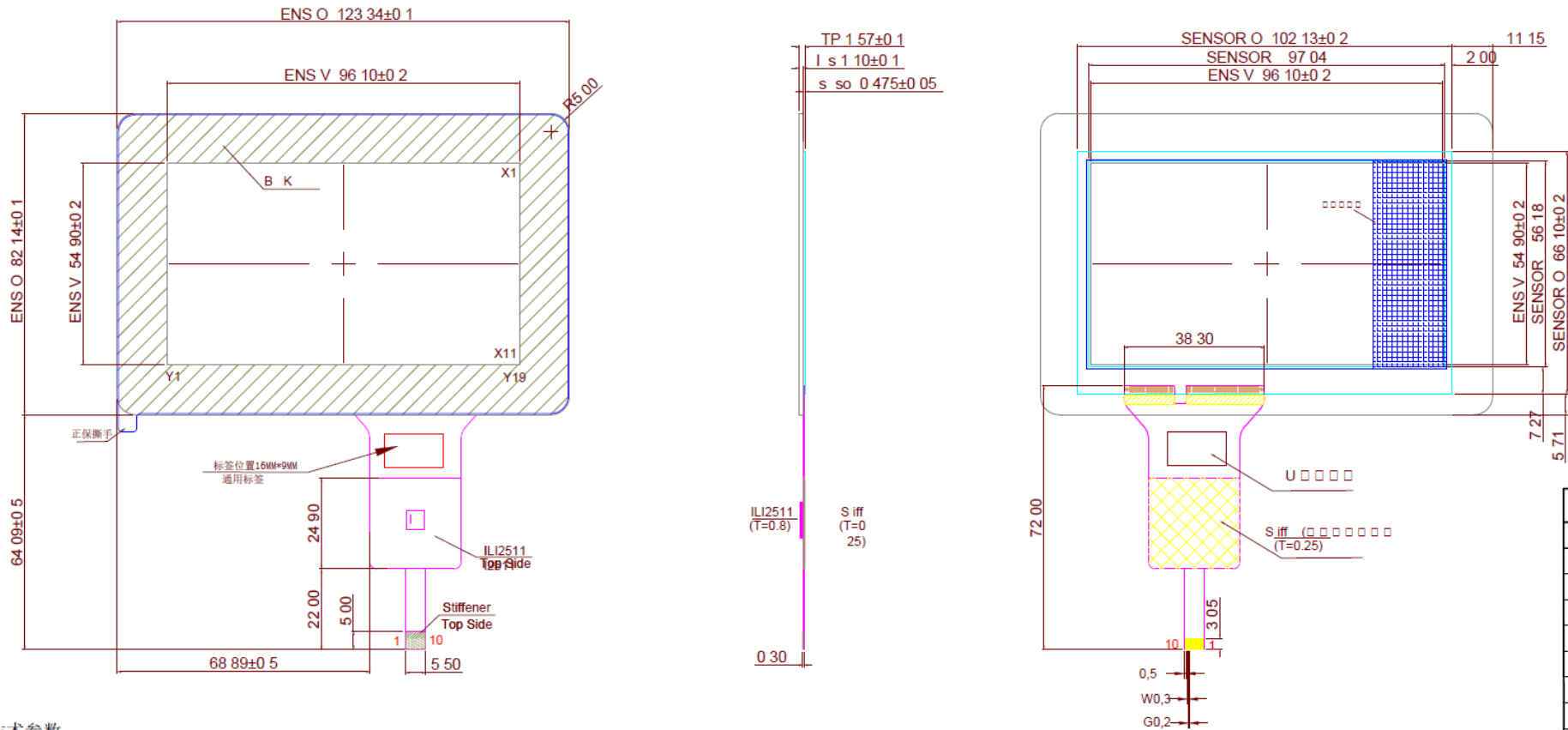
Precautions for mounting

- The panel should be mounted using a configuration that either holds the panel by all four corners or by all four sides
- The bezel edge must be positioned outside the active area. The bezel may cause false activation if the edge overlaps the active area
- Any mounting configuration should ensure that there is no twisting force applied to the panel
- 1mm distance between TFT screen and touch panel is recommended

Precautions for tail

- In order to avoid damaging and malfunction of the sensor, please don't bend the FPC area next to the panel
- Excess or repeated bending of the FPC connector should also be avoided

## 5 Appendix A: Technical Drawing



技术参数:  
 COVER LENS : 旭硝子, 1.1T 化强, 黑色  
 IC: ILI2511 通道RX19(5.1074)\*TX11(5.1073),10点,  
 10点. 供电电压:5V:

CONNECTOR PINOUT	
PIN NO.	DESIGNATION
1	VDD 5V
2	I2C_CHG
3	I2C_SDA
4	I2C_SCL
5	RESET
6	USB_D_N
7	USB_D_P
8	NC
9	NC
10	GND

## 6 Revision History

Revision	Date	Author	Changes
000	2020-08-27	T. Golling	initial version

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