DATA MODUL

7.0″ PCAP Solution
12039383
eTP070W2107-CS

Revision: 000

Date: 2020-08-27

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1 Scope

DATA MODUL's PCAP solution 12039383 consists of a 7.0″ 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	7.0 inch /17.8 cm
Format	wide
Composite	Glass / Film / Film with COF
Outline dimensions	182.74 x 114.58 x 1.57 mm (WxHxT)
Active area	156.08 x 88.45 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 – I²C

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

3.4 Pin Configuration

Pin	Signal	Description
1	VDD	Power Supply (5V)
2	I²C_CHG	Change
3	I²C_SDA	I²C Data input
4	I²C_SCL	I²C Clock
5	RES	Reset, active low
6	USB_DN	USB interface, D- signal.
7	USB_DP	USB interface, D+ signal.
8	N/C	*Do not connect*
9	N/C	*Do not connect*
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.

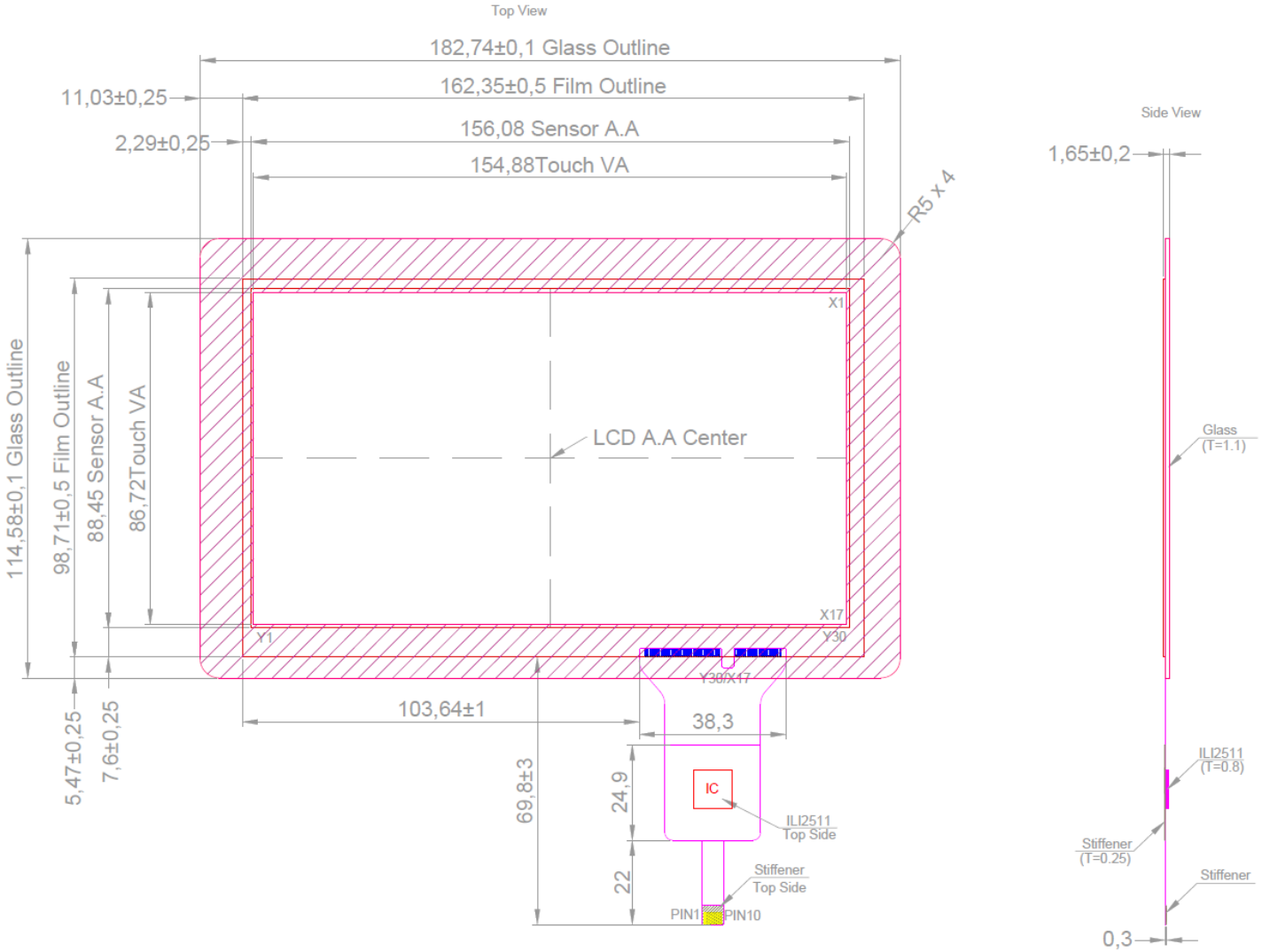
Precautions for mounting

- 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



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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