



**19.0" PCAP Solution
12034339**

Date: 10/29/2018

Table of contents

- 1 Scope 3**
- 2 Touch Sensor and Cover Glass 3**
 - 2.1 Technical Parameters..... 3
 - 2.2 Reliability Tests..... 4
- 3 Recommended Touch Controller..... 4**
- 4 Optical Inspection Criteria and Handling Recommendations 4**
 - 4.1 Optical Inspection Criteria..... 4
 - 4.2 Handling Recommendations 4
- 5 Appendix A: Technical Drawing 5**
- 6 Revision History 6**

1 Scope

DATA MODUL's PCAP solution 12034339 consists of a 19.0" 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	19.0 inch /48.26 cm
Format	4:3
Composite	Glass / Film / Film
Outline dimensions	326.7 x 400.4 x 1.1 mm (WxHxT)
Active area	307 x 382 mm (WxH)
Carrier glass	1.1 mm
Bending radius of tail	R = 5mm recommended
Transmissivity	85% (min.)
Operating temperature and humidity	-20 to +70°C, ≤85%RH
Storage temperature and humidity	-30 to +80°C, ≤90%RH
Tail connector	Hirose FH28H-80S-0.5SH, Hirose FH28H-50S-0.5SH
Resolution X/Y	41 x 51
Touch separation X/Y	7.5 x 7.5 mm

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, 240h
Cycle test	-30°C / 80°C, 30 min / cycle, 100 cycles, 1 h recovery at room temperature

3 Recommended Touch Controller

The recommendation for this PCAP solution is a controller based on Microchip mXT2952T2 . Please ask your local DATA MODUL sales representative for further details.

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.

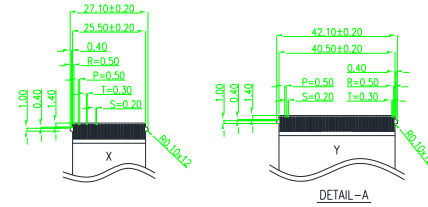
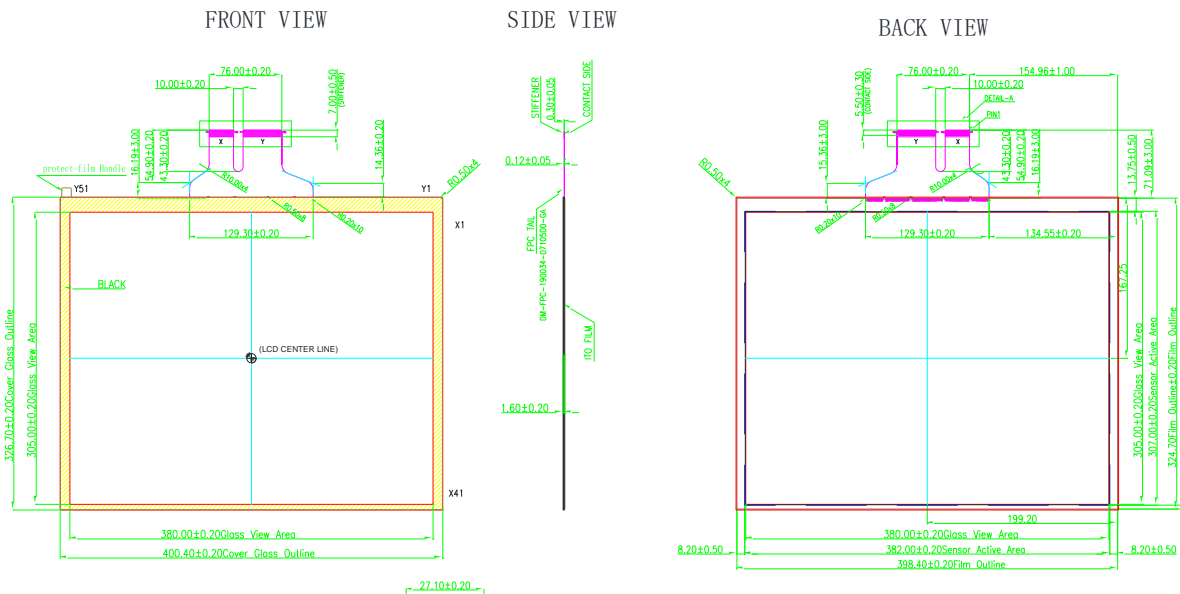
Precautions for mounting

- 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

- The flex tail in general can be bent with a min. radius of about 1mm
- 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



TOP

COVER GLASS (1.1mm)
OCA (0.125mm)
↳sensor LAYER ITO FILM 150Q? 0.125UM
OCA (0.125mm)
↳sensor LAYER ITO FILM 150Q? 0.125UM

CONNECTOR INPUT

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	GPIO	41	V3.3	1	GPIO	41	V3.3
2	Control	42	V3.3	2	Control	42	V3.3
3	NC	43	V3.3	3	Control	43	V3.3
4	NC	44	V3.3	4	Control	44	V3.3
5	NC	45	V3.3	5	NC	45	V3.3
6	NC	46	V3.3	6	NC	46	V3.3
7	NC	47	V3.3	7	NC	47	V3.3
8	NC	48	V3.3	8	V3.3	48	V3.3
9	V3.3	49	V3.3	9	V3.3	49	V3.3
10	V3.3	50	V3.3	10	V3.3	50	GPIO
11	V3.3	51	V3.3	11	V3.3		
12	V3.3	52	V3.3	12	V3.3		
13	V3.3	53	V3.3	13	V3.3		
14	V3.3	54	V3.3	14	V3.3		
15	V3.3	55	V3.3	15	V3.3		
16	V3.3	56	V3.3	16	V3.3		
17	V3.3	57	V3.3	17	V3.3		
18	V3.3	58	V3.3	18	V3.3		
19	V3.3	59	V3.3	19	V3.3		
20	V3.3	60	NC	20	V3.3		
21	V3.3	61	NC	21	V3.3		
22	V3.3	62	NC	22	V3.3		
23	V3.3	63	NC	23	V3.3		
24	V3.3	64	NC	24	V3.3		
25	V3.3	65	NC	25	V3.3		
26	V3.3	66	NC	26	V3.3		
27	V3.3	67	NC	27	V3.3		
28	V3.3	68	NC	28	V3.3		
29	V3.3	69	NC	29	V3.3		
30	V3.3	70	NC	30	V3.3		
31	V3.3	71	NC	31	V3.3		
32	V3.3	72	NC	32	V3.3		
33	V3.3	73	NC	33	V3.3		
34	V3.3	74	NC	34	V3.3		
35	V3.3	75	NC	35	V3.3		
36	V3.3	76	NC	36	V3.3		
37	V3.3	77	NC	37	V3.3		
38	V3.3	78	NC	38	V3.3		
39	V3.3	79	NC	39	V3.3		
40	V3.3	80	Control	40	V3.3		

- Technical Parameters:
- 1.TP Structure: G+F+F,
 - 2.Transmittance: =85%
 - 3.Operating Temp: -20? ~+70? , =85%RH
 - 4.Storage Temp: -30? ~+80? , =90%RH
 - 5.Unlabeled size:±0.2mm
 - 6.Test requirements: Contains [] is important size, for QC inspection
 - 7.Products need to meet ROHS requirements.

6 Revision History

Date	Author	Changes
10/29/2018	YLK	initial version

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