



**12.1" PCAP Solution
12018607**

Date: 21.09.2021

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1 Scope

DATA MODUL's PCAP solution 12018607 consists of a 12.1" 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	12.1 inch / 30.7 cm
Format	4:3
Composite	Film / Film
Outline dimensions	266.0 x 206.5 x 0.63 mm (WxHxT)
Active area	249.0 x 187.5 mm (WxH)
Bending radius of tail	R = 5 mm recommended
Transmissivity	85% (min.)
Haze	3% (max.)
Operating temperature and humidity	-20 to +70°C, 20 to 85 % RH
Storage temperature and humidity	-40 to +80°C, 20 to 90% RH
Tail connector	Hirose FH28H-80S-0.5SH, Hirose FH28H-50S-0.5SH

* Note 1: When the ambient temperature is above 65°C, the humidity has to be below 50%RH

2.2 Reliability Tests

Low Temperature Storage Test	-30°C for 72h
High Temperature Storage Test	70°C for 72h
High Temperature / High Humidity Test	60°C, 85% RH for 250h
Cycle test	-20°C / 60°C, 2 h / cycle, 36 cycles

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.

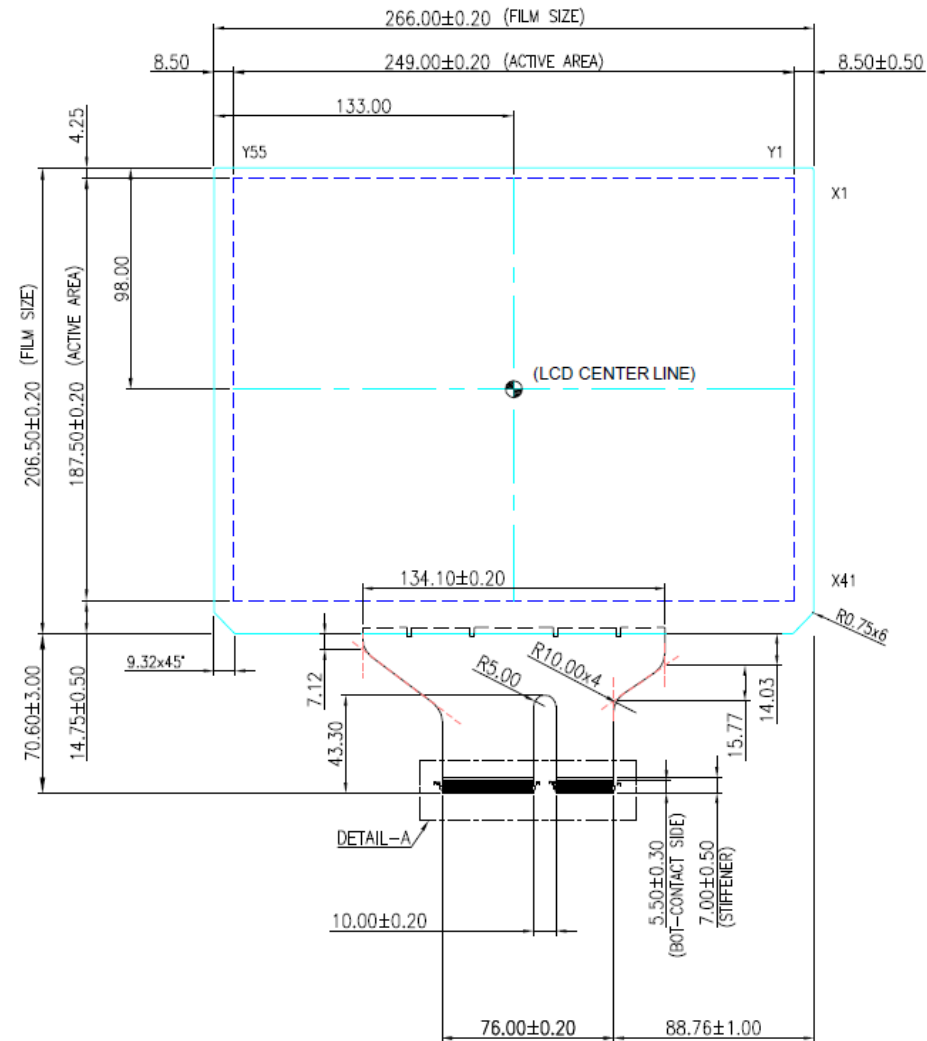
Precautions for mounting

- 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



6 Revision History

Date	Author	Changes
21.11.2017	Graf	initial version
14.02.2018	Lübke	structure: drawing and appendix
21.09.2021	T. Golling	updated drawing / corrected humidity

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