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Datasheet

Distec

TP-DD1010-D05M1

10,1" wide PCAP Touchpanel

COF, USB Interface

TO-09-129



TP-DD1010-D05M1

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1、 Revision sheet

Revision No.	Date	Content		Reason	Sig.
		Before	After		
REV.1	2019.10.08	--	--	First edition	

Remark:



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2、 Sample Specification

2.1 Product Name

Capacitive Touch Panel

2.2 Purpose

The purpose of this specification is to define the general provisions and quality requirements that apply to the supply of capacitive touch panel. This document and the Module Assembly Drawing are the highest-level specification for this product. It concludes description of product, supporting documents and related specifications.

2.3 Function

TOUCH SENSOR MODULE is a capacitive-type that customer uses on the flat panel display likes TFT-LCD. Once user touches it by finger, the circuitry of this TOUCH SENSOR indicates corresponding point at the contact area.

2.4 Construction

Construction	Materials used	Comment
Cover Glass	Strengthened glass	Thickness : 3.0mm
Adhesive	OCA1	Thickness : 0.125mm
	OCA2	Thickness : 0.05mm
SENSOR	ITO FILM	Thickness : 0.125mm
	ITO FILM	Thickness : 0.125mm



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3、General Specifications

3.1 Size of product

Item	Specifications (mm)	Note
Cover lens OD	251.0 (L) × 174.0 (W) × 3.0(T)	
View Area	218.0 (L) × 136.80 (W)	
Active Area	219.0 (L) × 137.80 (W)	
Sensor OD	230.0 (L) × 154.51 (W) × 0.425 (T)	
Total thickness	3.43±0.20	

3.2 Electric characteristics

Item	Specifications	Note
Operation Voltage	5V	
(Number of touch point)	10 Points	
Controller	ILI2511	
Interface	USB	

(Pin Configuration):

Interface	I2C
PIN	ASSIGNMENT
1	VDD
2	D-
3	D+
4	GND
5	NC
6	NC



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3.3 Optical characteristics

Items	Specifications	Note
Transparency	≥85%	

3.4 Mechanical characteristics

Items	Value	Note
Hardness	≥6H	



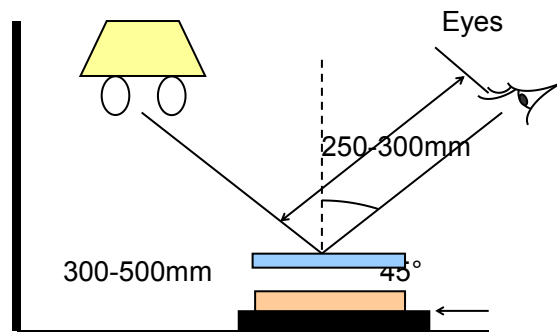
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4、 Appearance Inspection Standards

4.1 Appearance inspection conditions

Items	Specifications	
Source of light	800-1500LUX	
Inspection Distance	25-30cm (see following drawing)	
Inspection Time	≤10s/pcs	
Inspection Environment	Temperature : $22 \pm 5^{\circ}\text{C}$	humidity : $50 \pm 10\%$

A source of light (12-20W)



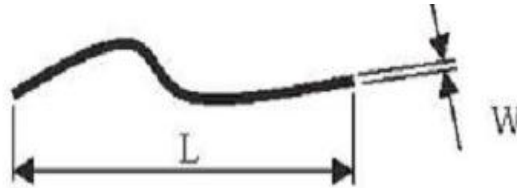
(Remark: D=diameter ; L=length ; W=width ; GT=glass thickness)



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4.2 Touch panel view area

4.2.1 Scratch



Standards	Judgments
$W \leq 0.05, L \leq 5\text{mm}$	Ignored and passed.
$W \leq 0.15, L \leq 8\text{mm}$	Two are allowed, and the distance between two defects must be longer than 40 mm.
$W > 0.15\text{mm}, L > 8\text{MM}$	The TP is regarded as a defect.

4.2.2 Granular sundry

Standards	Judgments
$0.15\text{mm} < D \leq 0.20\text{mm}$	Ignored and passed
$0.2\text{mm} < D \leq 0.40\text{mm}$	Three are allowed, and the distance between two defects must longer than 40 mm.
$D > 0.4\text{mm}$	The T/P is regarded as a defect.



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4.2.3 Linear Foreign Matter

Standards	Judgments
$W \leq 0.05, L \leq 5\text{mm}$	Ignored and passed.
$W \leq 0.15, L \leq 8\text{mm}$	Two are allowed, and the distance between two defects must be longer than 40 mm.
$W > 0.15\text{mm}, L > 8\text{MM}$	The T/P is regarded as a defect.

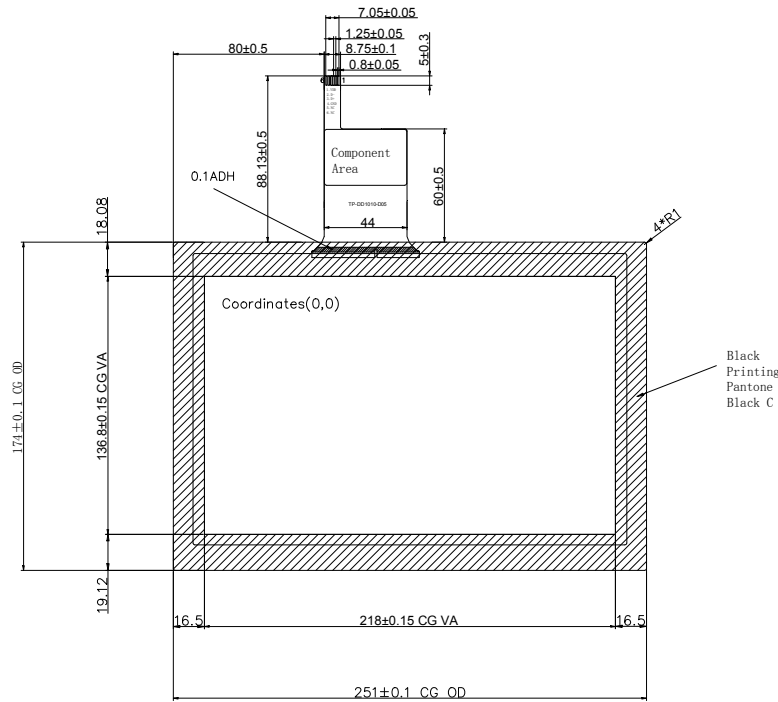


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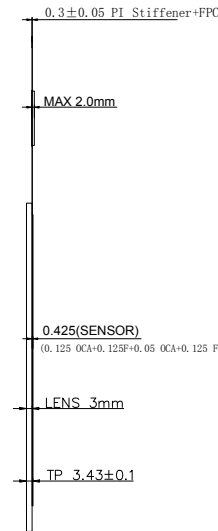
5、 Reliability Specifications

No.	Item	Test Condition	Note
1	High Temperature Operating	80°C	Inspect function
2	Low Temperature Operating	-30°C	Inspect function
3	High Temperature\ High Humidity	60°C, 90% RH, 120H	Inspect function
4	Vibration resistance	The requirements in “Operation force” of the item 3-1 Mechanical Characteristics and 6 Electric characteristics shall be of 20 m/s ² , 10 Hz to 55 Hz (1 min) is given for 30 min .each in the directions of X , Y , Z;	Inspect function
5	Operating temperature and humidity	-30~70°C, ≤80% RH	
6	Storage temperature and humidity	-30~80°C, ≤90% RH	
7	FPC bending test	total cycles:3cycles ,bending range: 0°->+90°->-90°->0°	Pass
8	Drop-test-with package	Packing weight, 0-20kg, drop height 30cm	Pass
9	Drop-test-with Finished product	The product is suspended, 64 g balls, 70cm height of free falling, product of intermediate cracks	Pass

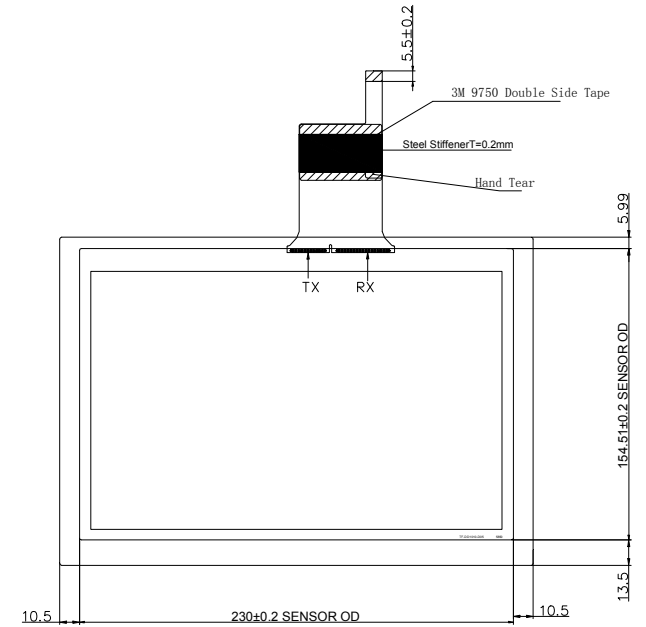
Front View



Side View



Back View



USB Interface

PIN#	Signal
1	VDD
2	D-
3	D+
4	GND
5	NC
6	NC

1. G+F+F
2. IC:ILI2511 USB Interface
3. Working Voltage : 5 V
4. Hardness:6H
5. Transmittance : ≥85%
6. Working Temperature: -30°C~+70°C
7. Working Humidity: 0% to 80%
8. Storage Temperature: -30°C to +80°C
9. Storage Humidity: 0% to 90%
10. Without individual tolerance:±0.2mm
11. Surface: Glare
12. Cover glass: Thermal tempered

Unit	mm		10.1" Projected Capacitive Touchscreen
Size	A4		
Scale	1:1		
Approved By			Part No.
Check By			TO-09-129
Design By	XC	2019-04-02	Production Number
			TP-DD1010-D05M1

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