



RAYSTAR

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SPECIFICATION

CUSTOMER:

APPROVED BY	
PCB VERSION	
DATE	

FOR CUSTOMER USE ONLY

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY

Release DATE:

Revision History

VERSION	DATE	REVISED PAGE NO.	Note
0	2018/12/12		First issue

RAYSTAR OPTRONICS

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RAYSTAR OPTRONICS

1.General Specification

1.1. Construction:

Construction	Materials	Comment
Cover lens	glass	Thickness: 0.7mm
LOCA	Adhesive	Thickness: 0.15mm
ITO Glass	ITO glass	Thickness: 0.70mm

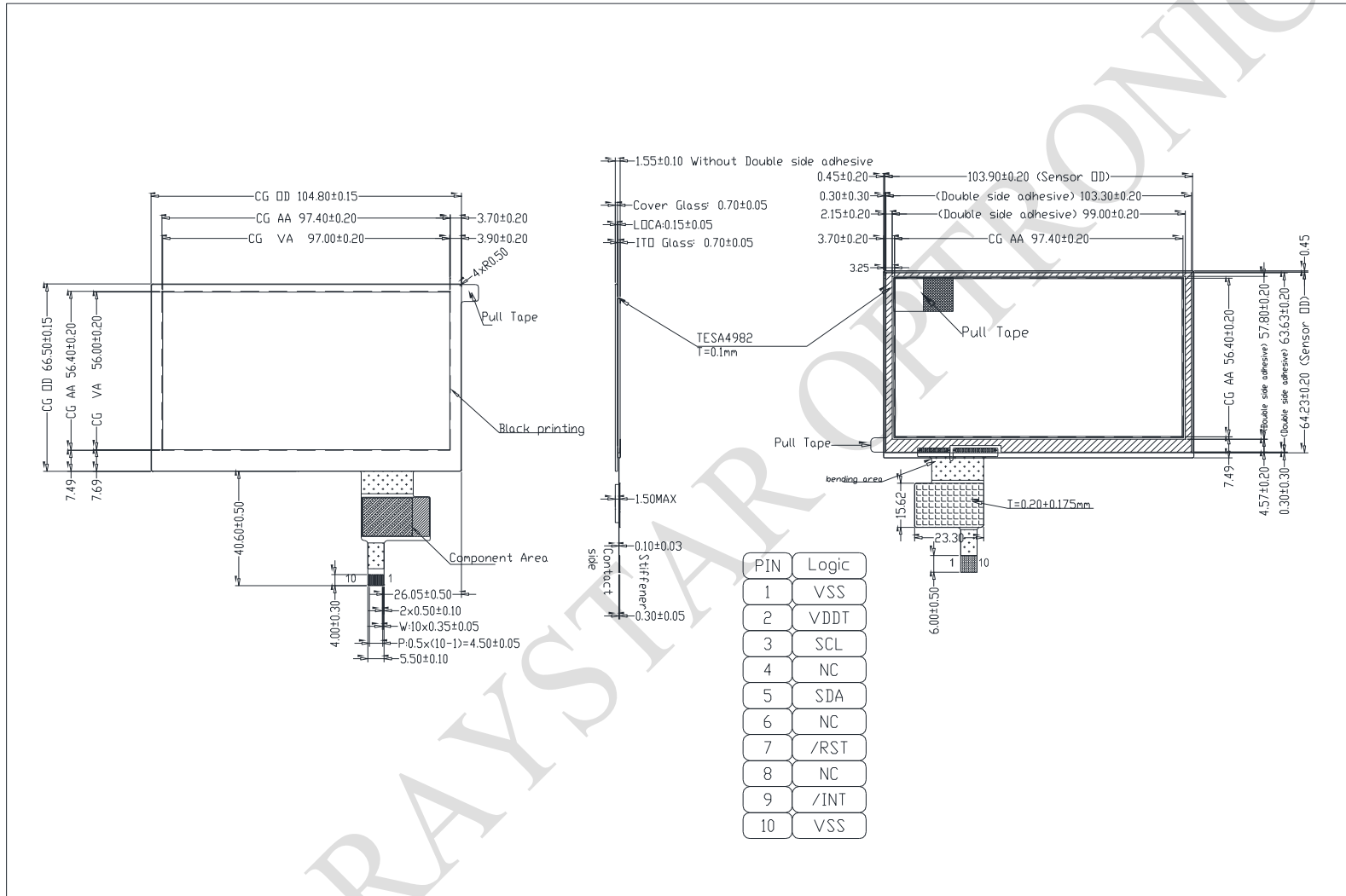
1.2. Mechanical characteristics:

Item	Description	Unit
Outside Dimension	104.8±0.15*66.5±0.15	mm
View Area	97±0.20*56±0.20	mm
Active Area	97.4±0.20*56.4±0.20	mm
Thickness	1.55±0.10 (Without AD)	mm
Input Method	Finger	
Hardness Of Surface	Hard Surface : ≥7H	
Accuracy	+/-1mm@10mm	mm
Support Operation	Finger	5 Finger
Channel	9*15	
Interface	I2C	
Supported Operating Systems	Android2.0-4.2Windows	
Controller IC	FT5426DQ8	

2.Interface Pin Function

NO.	Pin Name
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	RST
8	NC
9	INT
10	VSS

3. Contour Drawing



4. Other

4.1 Electrical Characteristics

Item	Description	Unit
Operating Voltage	DC 2.8-3.6V	V
Insulation Resistance	> 20MΩ At DC 25V	MΩ
Insulation Ability	≥60sec. At DC 25V	sec
Chatting Times	<5ms	ms

4.2. Processing Environment:

Items	Value
Operating temperature & Humidity	-20°C~+70°C; 90%RH
Storage temperature & Humidity	-30°C~+80°C; 90%RH

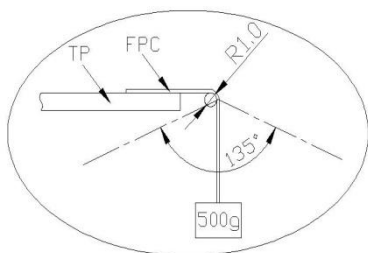
4.3. Optical characteristics:

Items	Value
Total Transmittance	≥85%
Total Haze	<85±2%

4.4. Mechanical Test

1.FPC Bending Test

- (1) Operating Environment: Temperature: 22±3°C 、 Humidity: 60±10%RH 、 Level: Class1000
 (2) Test Method: Meet electrical spec after testing.



1. Bending Degree: 135°;
2. Bending Radius: R1.
3. Bending Times: 50 Times;
4. Load: 500g.

2.FPC Insert/Pull Out Test:

(1) Operating Environment: Temperature: $22\pm 3^{\circ}\text{C}$ 、 Humidity: $60\pm 10\% \text{RH}$ 、 Level: Class1000

(2) Method:

A. Before Test: Electrical Characteristic Test is OK.

B. Test Circle: Connector Unlock → FPC Insert → Connector Lock → Connector Unlock → FPC Pull Out → Connector Lock, cycle 10 Times;

C. After Test: Electrical Characteristic Test is OK;

4.5. Environment Test

(1) High temperature: $+80^{\circ}\text{C}$, 120 hr.

(2) Low temperature: -20°C , 120 hr.

(3) High temp./high humidity test: $60^{\circ}\text{C} \& 90\% \text{RH}$ 120 hr.

(4) High Low temperature test: -20°C 30min/ $+70^{\circ}\text{C}$ 30min, 60%RH 24hr, this is a Cycle, continued 24hr test. (Including heating and cooling of 30 minutes)

Remove the product from the testing machine, at room temperature for 24 hours before testing, function is OK..

4.6. Inspection Standard

1 Inspection conditions:

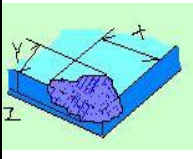
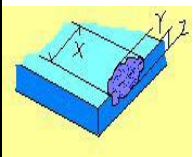
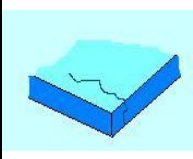
1.1 Inspection distance: Inspect **350-450 mm away** from the sample.






1.2 Inspection angle: 45 degrees in 6 o'clock direction (all defects in viewing area should be inspected from this direction), Rotate 30° about the vertical axis

1.3 Temperature: $25\pm 5^{\circ}\text{C}$

1.4 Light source: D65 1000 Lux +/- 20%

2. Inspection Items :

Items		Picture	Type	Standard	Judgment	Remarks	
The Glass is damaged	It's damaged to turn Cape		Ma	$X \leq 2.0\text{mm}$	Accept	Without affecting the function of the premise	
				$Y \leq 2.0\text{mm}$	Accept		
				$Z \leq 1/2T$	Accept		
	In addition to turning Cape any breakage of scope corner		Mi	$X \leq 2.0\text{mm}$	Accept	Without affecting the function of the premise	
				Ma	$Y \leq 2.0\text{mm}$		Accept
					$Z \leq 1/2T$		Accept
Broken Glass			Cr	Product any part exists broken	Failure		
Spot ((includes white and black spots))			Ma	$D \leq 0.15\text{mm}$	Accept		
				$0.15 < D \leq 0.25\text{mm}$ $N \leq 2$ ($\geq 25\text{mm}$ separation) ;	Allow		
				Cr	$D > 0.25\text{mm}$	Failure	
Scratch			Ma	$W \leq 0.05\text{mm}$	Accept		
				$0.05 < W \leq 0.1$, $L \leq 4\text{mm}$, $N \leq 1$	Allow		
				Cr	$W > 0.1\text{mm}$	Failure	
Linear Material			Mi	$W \leq 0.05\text{mm}$	Accept		
			Ma	$0.05 < W \leq 0.1$, $L \leq 3\text{mm}$, $N \leq 2$, ($> 20\text{mm}$ Separation)	Allow		
				Cr	$W > 0.1\text{mm}$	Failure	

Items	Picture	Type	Standard	Judgment	Remarks
bubble		Ma	$D \leq 0.15\text{mm}$	Allow	
			$0.15 < D \leq 0.25, (>25\text{mm Separation}, N \leq 3)$	Accept	
		Cr	$D > 0.25\text{mm}$	Failure	
Inside Dirty (Product inner part)		Ma	Cylindrical shape	Failure	Visual areas in the visual light pollution within the diameter of the block beyond the obvious point of the standard range of stains
			Strip		
			Concentrated form		
			Twill-like		
			Watermark-like (with hand lines)		
Protective Film And Surface Dirt		Mi	Protective film affixed to the product sides, edges and product alignment. Protective film products beyond the edge of $\leq 2\text{mm}$.	Accept	
		Ma	Tear the protective film products, the visual inspection TP surface dirty Indian.	Failure	

4.7 Attention

Project	Notes
Store	(1) In accordance with the specifications required storage temperature range of book preservation products. (2) Please ensure the product packaging when stored in good condition. (3) Avoid direct sunlight product. (4) To avoid product contact with water, organic solvents, acid and sulfuric acid compounds.
Unpacking	(1) Do not grasp the FPC to take place through the product. (2) According to the box on the "Over / under" Mark the direction of opening the product packaging.
Operating	(1) Input should use your fingers or pens. (2) Cannot pull hard FPC, to avoid bad electrical connection inside the product; not twisted and bent FPC output, so as to avoid adverse FPC connection to the controller. (3) Cannot bend and break the product. (4) Do not drop the product of the action on the drop zone, in order to avoid misuse.
Installed	(1) Does not touch too much pressure is applied to the product cause injury. (2) Machine design; avoid injury and acute angle-shaped bend FPC FPC. (3) Do not connect the FPC and the department of screen put too much pressure, leading to screen the internal electrical connection is unstable. (4) Assembly of the product to avoid tool damage.