

TFT DISPLAY SPECIFICATION



RAYSTAR

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RFS390E-AWH-DNG

SPECIFICATION

General Specifications

- Size: 3.9 inch
 - Dot Matrix: 480 x RGB x 128(TFT) dots
 - Module dimension: 105.5(W) x 37.0(H) x 5.2(D) mm
 - Active area: 95.04 x 25.34 mm
 - Pixel pitch: 0.198 x 0.198 mm
 - LCD type: TFT, Normally Black, Transmissive
 - Viewing Angle: 80/80/80/80
 - Aspect Ratio: Bar Type
 - TFT Driver IC: SC7283 or equivalent
 - Interface: 24-bit RGB
 - Backlight Type: LED, Normally White
 - PCAP IC: GT911 or equivalent
 - PCAP FW Version: 0X99
 - PCAP Interface: I2C
 - PCAP Resolution: 480*128
 - Touch Panel: With PCAP
 - Surface: Glare
- *Color tone slight changed by temperature and driving voltage.

Interface

1. LCM PIN Definition

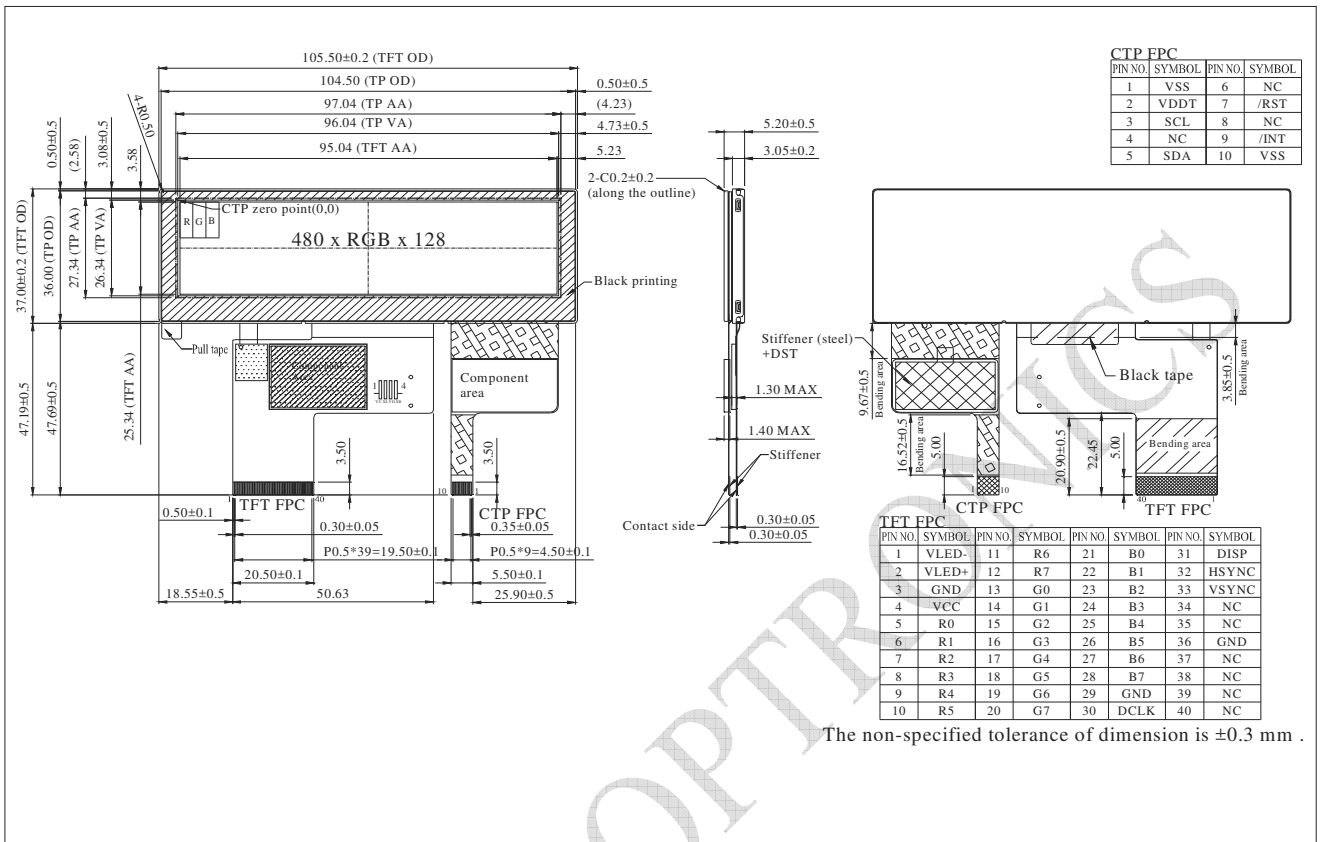
Pin	Symbol	Function	Remark
1	VLED-	Power for LED backlight cathode	
2	VLED+	Power for LED backlight anode	
3	GND	Power ground	
4	VCC	Power voltage	
5	R0	Red data	
6	R1	Red data	
7	R2	Red data	
8	R3	Red data	
9	R4	Red data	
10	R5	Red data	
11	R6	Red data	
12	R7	Red data	
13	G0	Green data	
14	G1	Green data	
15	G2	Green data	
16	G3	Green data	
17	G4	Green data	
18	G5	Green data	
19	G6	Green data	
20	G7	Green data	
21	B0	Blue data	
22	B1	Blue data	
23	B2	Blue data	
24	B3	Blue data	
25	B4	Blue data	
26	B5	Blue data	
27	B6	Blue data	
28	B7	Blue data	
29	GND	Power ground	
30	DCLK	Pixel clock input pin	

31	DISP	DISP sets the display mode.		
		DISP	Function Description	
		L	Standby mode	
		H	Normal display mode	
32	HSYNC	Horizontal sync signal, default is negative polarity.		
33	VSYNC	Vertical sync signal, default is negative polarity.		
34	NC	No connection		
35	NC	No connection		
36	GND	Power ground		
37	NC	No connection		
38	NC	No connection		
39	NC	No connection		
40	NC	No connection		

2. PCAP PIN Definition

Pin	Symbol	Function	Remark
1	VSS	Ground for analog circuit	
2	VDDT	Power Supply : +3.0V	
3	SCL	I2C clock input.	
4	NC	No connect	
5	SDA	I2C data input and output	
6	NC	No connect	
7	/RST	External Reset, Low is active	
8	NC	No connect	
9	/INT	External interrupt to the host	
10	VSS	Ground for analog circuit	

Contour Drawing



The non-specified tolerance of dimension is ±0.3 mm .

RAYSTAR OPTRO

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+85	°C
Storage Temperature	TST	-30	—	+85	°C

Electrical Characteristics

Operating conditions:

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VCC	3.0	—	3.6	V
Supply Current For LCM	ICC	—	20	30	mA
Supply PCAP	VDDT	2.8	—	3.3	V
	I _{VDDT}	—	7	10.5	mA