TFT DISPLAY SPECIFICATION



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RFJ240L-AYW-MNG

General Specifications

- Size: 2.4”
- Dot Matrix: 240 x RGB x 320(TFT) dots
- Module dimension: 43.72(W) x 61.26(H) x 4.5(D) mm
- Active area: 36.72 x 48.96 mm
- Pixel pitch: 0.153 x 0.153 mm
- LCD type: TFT, Normally Black, Transmissive
- TFT Driver IC: ST7785MA
- TFT Interface: 1-Lane MIPI
- Viewing angle: 80/80/80/80
- Aspect Ratio: Portrait
- Backlight Type: LED, Normally White
- PCAP Driver IC: CF1124
- PCAP Interface: I2C
- PCAP FW Version: 0x01
- PCAP Resolution: 240 * 320
- Touch Panel: Projected Capacitive Touch Panel, PCAP
- Surface: Glare

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Interface

LCM PIN Definition

Pin No	Symbol	I/O	Function
1	VLED-	P	Cathode of LED backlight.
2	VLED+	P	Anode of LED backlight.
3	GND	P	Ground
4	MIPI_D0N	I	Negative polarity of low voltage differential data signal Leave the pin open when not in use.
5	MIPI_D0P	I	Positive polarity of low voltage differential data signal Leave the pin open when not in use.
6	GND	P	Ground
7	MIPI_CLKN	I	Negative polarity of low voltage differential clock signal Leave the pin open when not in use
8	MIPI_CLKP	I	Positive polarity of low voltage differential clock signal Leave the pin open when not in use.
9	GND	P	Ground
10	RESX	I	This signal will reset the device and it must be applied to properly initialize the chip. Signal is active low.
11	VDDI	P	Power Supply for I/O System.
12	VDD	P	Power Supply for Analog, Digital System and Booster Circuit.
13	GND	P	Ground
14-22	NC	-	No connection

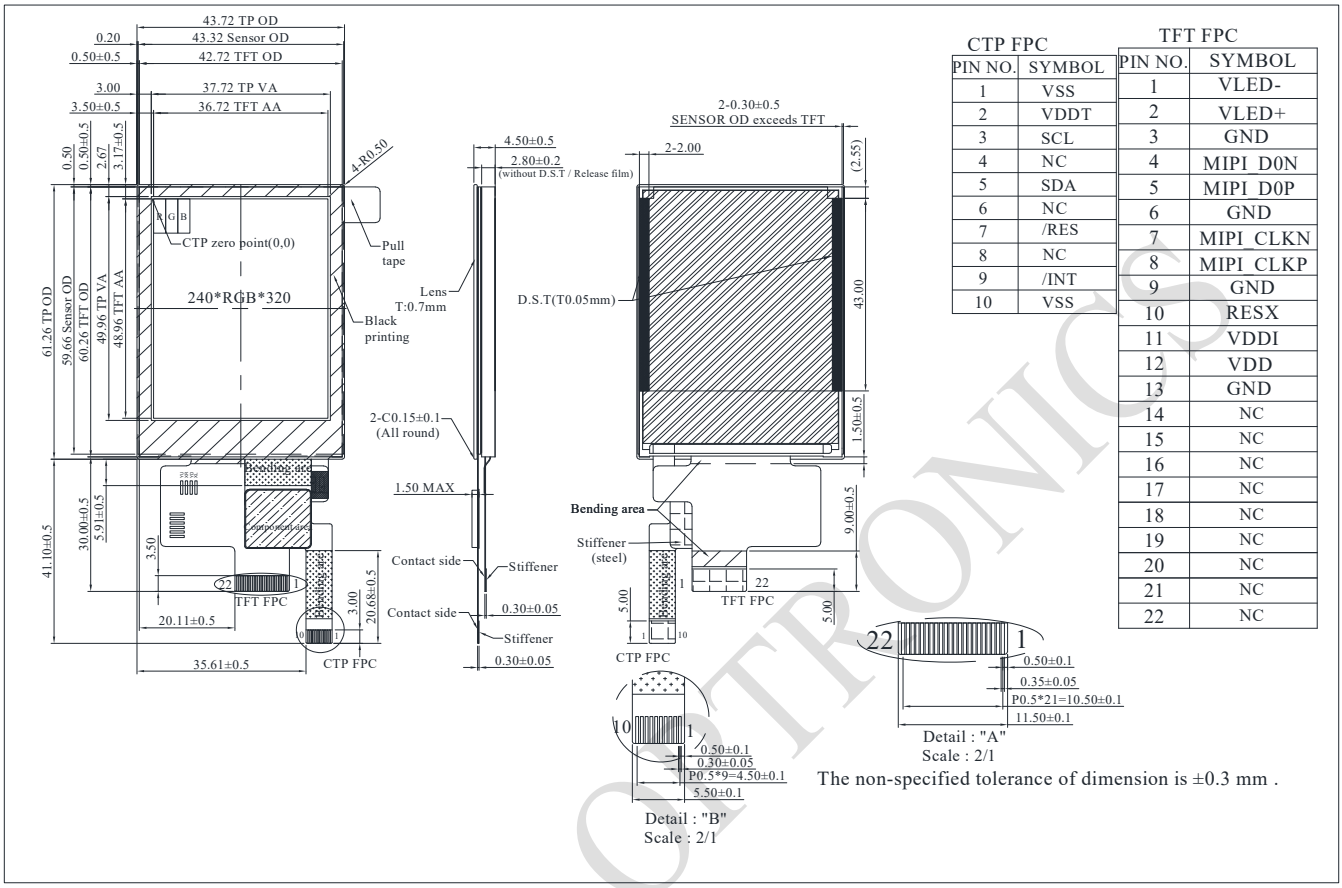
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PCAP PIN Definition

Pin No	Symbol	Function
1	VSS	Connect to system ground.
2	VDDT	Power Supply
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RES	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Connect to system ground.

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Contour Drawing



CTP FPC

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RES
8	NC
9	/INT
10	VSS

TFT FPC

PIN NO.	SYMBOL
1	VLED-
2	VLED+
3	GND
4	MIPI_D0N
5	MIPI_D0P
6	GND
7	MIPI_CLKN
8	MIPI_CLKP
9	GND
10	RESX
11	VDDI
12	VDD
13	GND
14	NC
15	NC
16	NC
17	NC
18	NC
19	NC
20	NC
21	NC
22	NC

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

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

Operating Conditions

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For Analog	VDD	2.4	—	3.3	V
Supply Voltage For Logic	VDDI	1.65	—	3.3	V
Supply Current For LCM	IDD	—	9.0	15.0	mA
Supply PCAP	VDDT	3.0	3.3	3.6	V
	IDDT	—	14.0	25.0	mA

LED Driving Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	—	—	80	—	mA
Power Consumption	—	—	280	—	mW
LED voltage	VBL+	2.8	3.5	3.7	V
LED Life Time	—	50,000	—	—	Hr

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