TFT DISPLAY SPECIFICATION



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SPECIFICATION

MODULE NO.: WF24-240320LM#0P3-FC

General Specifications

Item	Dimension	Unit
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 or equivalent	
TFT Interface	1-Lane MIPI	
Viewing angle	80/80/80/80	
Aspect Ratio	Portrait	
Backlight Type	LED, Normally White	
PCAP Driver IC	CF1124 or equivalent	
PCAP Interface	I2C	
PCAP FW Version	0x01	
PCAP Resolution	240 * 320	
Touch Panel	With PCAP	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

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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

1. 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 CTP	VDDT	3.0	3.3	3.6	V
	IDDT	—	14.0	25.0	mA

2. 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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Interface

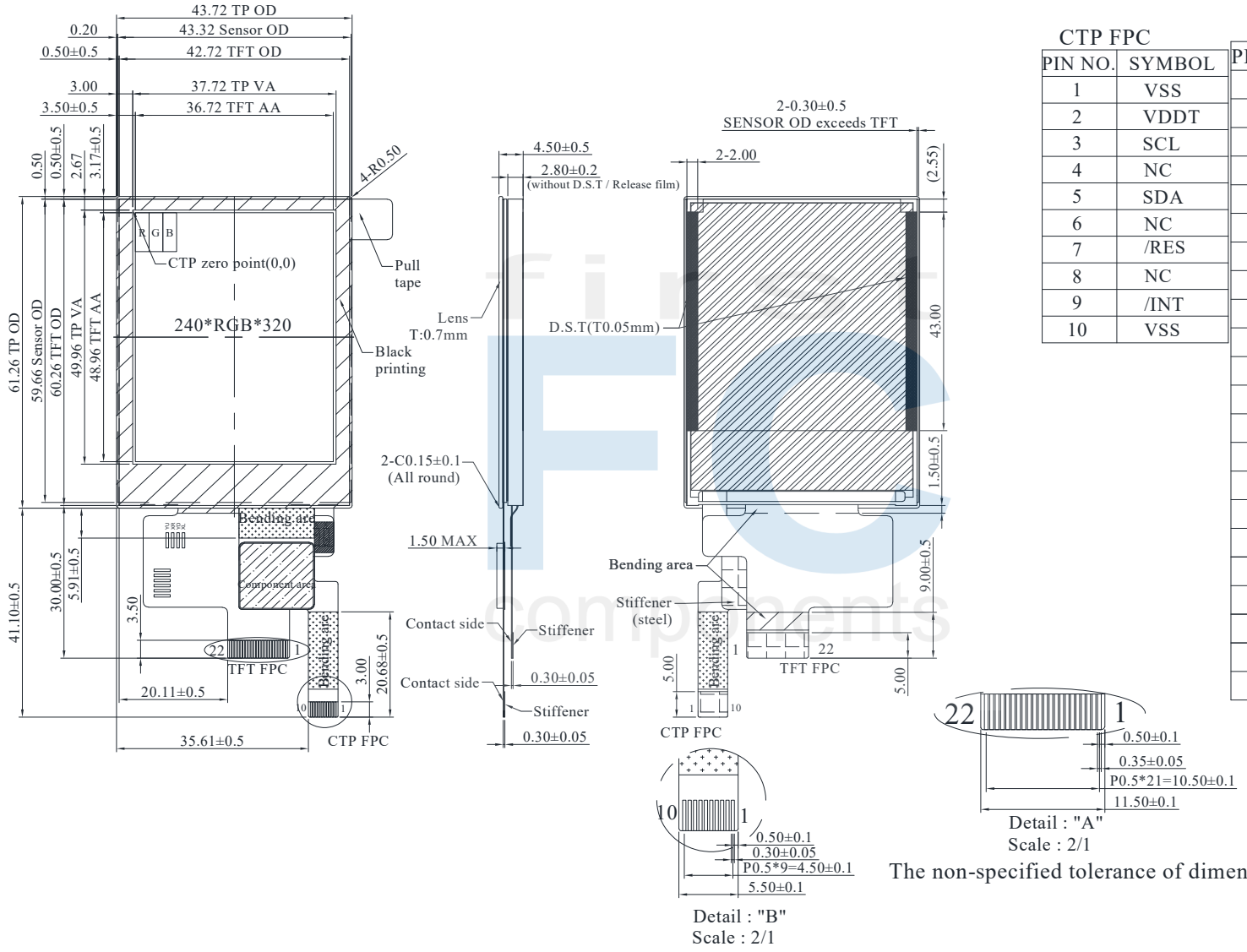
1. LCM PIN Definition

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

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.

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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