TFT DISPLAY SPECIFICATION



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SPECIFICATION

MODULE NO.: WFN0180SA2#0SV2-FC

General Specification

Item	Dimension	Unit
Size	1.77	inch
Dot Matrix	128 x RGB x 160(TFT)	dots
Module dimension	36.5(W) x 47.0(H) x 4.73 (D)	mm
Active area	28.032 x 35.040	mm
Pixel pitch	0.219 x 0.219	mm
LCD type	TFT, Normally Black, Transmissive	
View Angle	80/80/80/80	
Aspect Ratio	Portrait	
TFT IC	NV3023B or equivalent	
TFT Interface	SPI	
CTP Driver IC	FT6336U or equivalent	
CTP Support Operation	Support single-finger touch & gesture	
CTP Interface	I2C	
CTP FW Version	0x02	
CTP Resolution	128*160	
Backlight Type	LED, Normally White	
Touch Panel	Projected Capacitive Touch Panel	
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	VCC	2.8	3.3	3.6	V
Supply LCM current	ICC	—	7	10.5	mA
Supply Voltage For Touch	VDDT	2.8	-	3.3	V
	IDDT		4	6	mA

2. LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	—	—	80	—	mA
LED voltage	VLED+	2.7	2.9	3.3	V
LED Life Time	—	50,000	—	—	Hr

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Interface

1. LCM PIN Definition

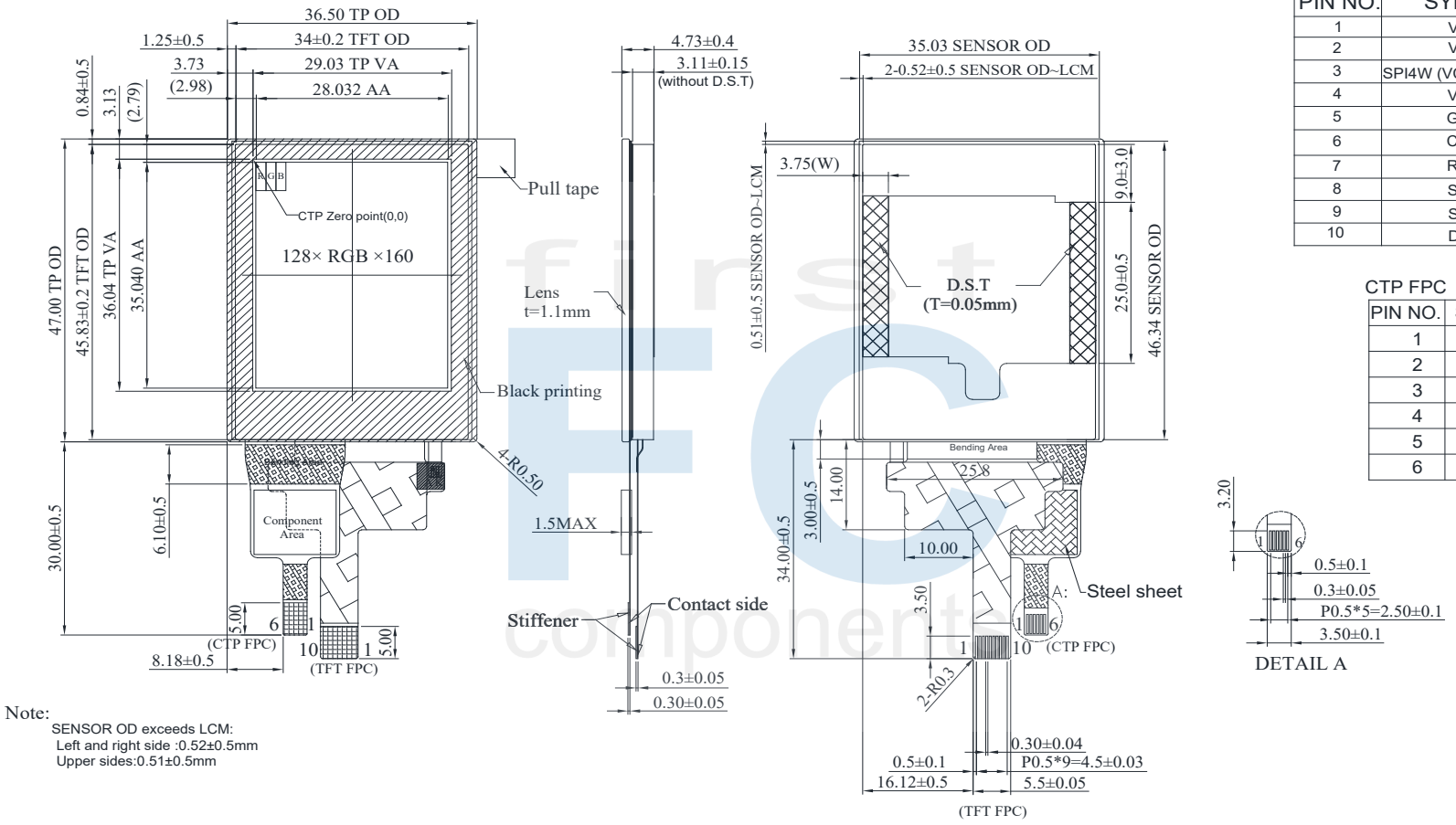
Pin no	Symbol	Function
1	VLED+	Back light anode
2	VLED-	Back light cathode
3	SPI4W (VCC=4 WIRE)	SPI4W='1', SPI 4 Wire Serial SPI4W='0', SPI 3 Wire Serial
4	VCC	Power Supply.
5	GND	Ground
6	CS	Chip enable (CSX)
7	RST	Reset signal (RESX)
8	SDA	Serial input/output signal in serial interface mode.
9	SCL	In Serial Interface, this is used as SCL.
10	D/C	Data/ command selection. (D/CX)

2. CTP PIN Definition

Pin no	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply
3	SCL	I2C clock inputI2C clock input
4	SDA	I2C data input and output
5	/RST	External reset signal, active low
6	/INT	External interrupt to the host

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Contour Drawing



TFT FPC

PIN NO.	SYMBOL
1	VLED+
2	VLED-
3	SPI4W (VCC=4 WIRE)
4	VCC
5	GND
6	CS
7	RST
8	SDA
9	SCL
10	D/C

CTP FPC

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	SDA
5	/RST
6	/INT

Note:
SENSOR OD exceeds LCM:
Left and right side :0.52±0.5mm
Upper sides:0.51±0.5mm

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