TFT DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WFN0286DA2#0PW15-FC

APPROVED BY: **(FOR CUSTOMER USE ONLY)**	**PCB VERSION:** **DATA:**

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
ISSUED DATE:	**2026/04/22**		

General Specifications

Item	Dimension	Unit
Size	2.86”	inch
Dot Matrix	376 x RGB x 960 (TFT)	dots
Module dimension	40.2 (W) x 84.3 (H) x 3.85 (D)	mm
Active area	26.508 x 67.68	mm
Pixel Pitch	0.0705 x 0.0705	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing angle	85/85/85/85	
Aspect Ratio	1：2.5	
TFT Interface	3W SPI+RGB24bit	
TFT Driver IC	ST7701P or Equivalent	
CTP Driver IC	ST1633i or equivalent	
CTP Interface	I2C	
CTP FW Version	0x02	
CTP Resolution	376x960	
Backlight Type	LED ,Normally White	
With /Without TP	With CTP	
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	-30	—	+85	℃
Storage Temperature	TST	-30	—	+85	℃

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above

1. Temp. ≦ 60℃, 90% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 90% RH at 60℃

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Electrical Characteristics

Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Interface Supply Voltage	VCC	2.5	2.8	3.3	V
Current for Drive	IVCC	—	25	40	mA
Input voltage 'H'level	VIH	0.7*VCC	—	VCC	V
Input voltage 'L'level	VIL	GND	—	0.3*VCC	V
Output voltage 'H'level	VOH	0.8* VCC	—	VCC	V
Output voltage 'L'level	VOL	GND	—	0.2* VCC	V
Supply CTP	TP_VDDT	3.0	3.3	3.6	V
	TP_IDDT	—	2.6	4.0	mA

Note: to avoid power supply noise, please avoid using driving conditions close to min, or max value

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	—	—	20	—	mA	—
LED voltage	VLED+	18.2	20.0	22.4	V	Note 1
LED Life Time	—	50,000	—	—	Hr	Note 2,3,4

Note 1 : There are 1 Groups LED



Backlight LED Circuit

Note 2 : Ta = 25 ℃

Note 3 : Brightness to be decreased to 50% of the initial value

Note 4 : The single LED lamp case

Optical Characteristics

Item		Symbol	Condition.	Min	Typ.	Max.	Unit	Remark
Response time		Tr+ Tf	θ=0°、Φ=0°	-	30	35	ms	Note 3
Contrast ratio		CR	At optimized viewing angle	1000	1200	-	-	Note 4
Color Chromaticity	White	Wx	θ=0°、Φ=0	0.258	0.308	0.358		Note 2,6,7
		Wy		0.295	0.345	0.395		
Viewing angle	Hor.	ΘR	CR≧10	75	85	-	Deg.	Note 1
		ΘL		75	85	-		
	Ver.	ΦT		75	85	-		
		ΦB		75	85	-		
Brightness		-	-	400	450	-	cd/m²	Center of display
Uniformity		(U)	-	70	-	-	%	Note5

Ta=25±2℃

Note 1: Definition of viewing angle range

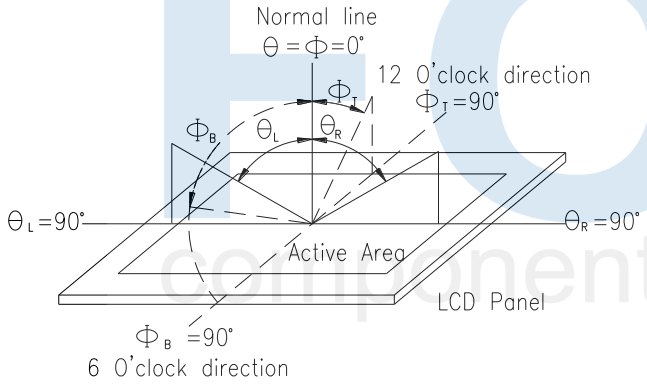


Fig. 1. Definition of viewing angle

Note 2: Test equipment setup:

After stabilizing and leaving the panel alone at a driven temperature for 10 minutes, the measurement should be executed. Measurement should be executed in a stable, windless, and dark room. Optical specifications are measured by Topcon BM-7orBM-5 luminance meter 1.0° field of view at a distance of 50cm and normal direction.

Interface

LCM PIN Definition

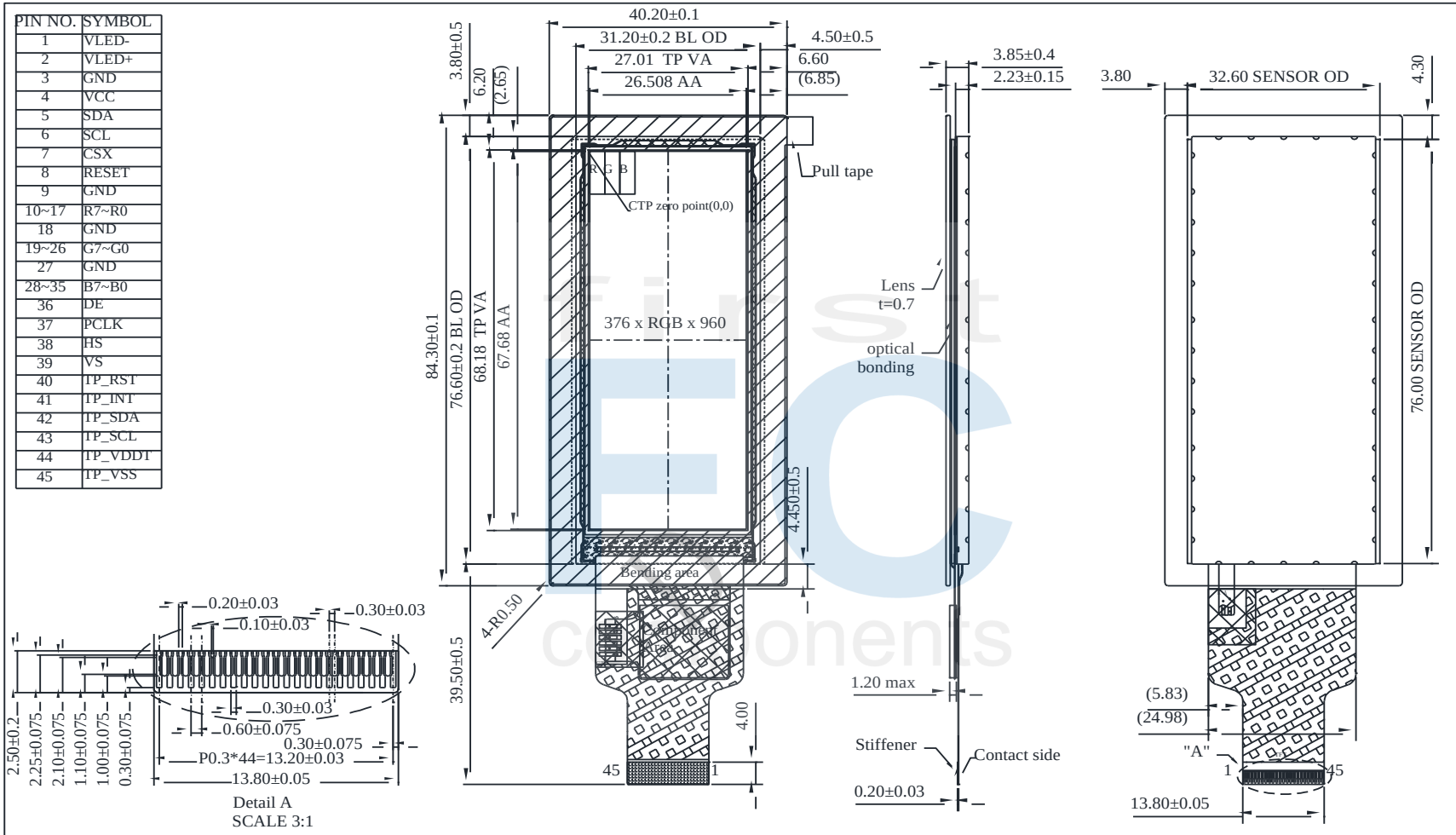
Match connector: Molex 5025984593 or equivalent.

Pin No.	Symbol	Description
1	VLED-	LED backlight cathode
2	VLED+	LED backlight anode
3	GND	Power ground
4	VCC	Power Supply for Digital Circuit
5	SDA	SDA: Serial data input/output bidirectional pin for SPI Interface.
6	SCL	SCL: Serial clock input for SPI interface.
7	CSX	- A chip select signal Low: the chip is selected and accessible High: the chip is not selected and not accessible
8	RESET	Reset signal(low active)
9	GND	Power ground
10~17	R7~R0	Red Data 7~0
18	GND	Power ground
19~26	G7~G0	Green Data 7~0
27	GND	Power ground
28~35	B7~B0	Blue Data 7~0
36	DE	Data Enable (ENABLE)
37	PCLK	Clock Signals ; Latch Data at the Falling Edge (DOTCLK)
38	HS	Line synchronizing signal for RGB interface operation (HSYNC)
39	VS	Frame synchronizing signal for RGB interface operation (VSYNC)
40	TP_RST	CTP External Reset, Low is active
41	TP_INT	CTP External interrupt to the host
42	TP_SDA	CTP I2C data input and output
43	TP_SCL	CTP I2C clock input
44	TP_VDDT	CTP Power supply: +3.3V
45	TP_VSS	CTP Ground for analog circuit

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Contour Drawing

PIN NO.	SYMBOL
1	VLED-
2	VLED+
3	GND
4	VCC
5	SDA
6	SCL
7	CSX
8	RESET
9	GND
10~17	R7~R0
18	GND
19~26	G7~G0
27	GND
28~35	B7~B0
36	DE
37	PCLK
38	HS
39	VS
40	TP_RST
41	TP_INT
42	TP_SDA
43	TP_SCL
44	TP_VDDI
45	TP_VSS



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