TFT DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WFN0570DA2#0SPW0-FC

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

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
ISSUED DATE:	**2026/09/10**		

General Specifications

Item	Dimension	Unit
Size	5.7	inch
Dot Matrix	640 x RGB x 480(TFT)	dots
Module dimension	124.7 x 100.0 x 5.91	mm
Active area	115.2 x 86.4	mm
Pixel pitch	0.18 x 0.18	mm
LCD type	TFT, Normally black, Transmissive	
View Angle	89/89/89/89	
TFT Driver IC	JD9168S or Equivalent	
TFT Interface	RGB18bits SYNC+DE mode	
Backlight Type	LED ,Normally White	
With /Without TP	Without TP	
Surface	Anti-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	-40	—	+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:

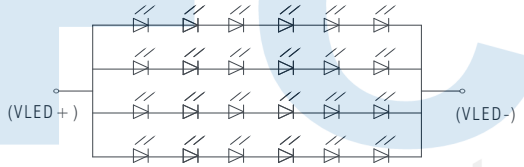
Parameter		Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Voltage		VCC	Ta=25ºC	3.0	3.15	3.3	V	
Input voltage	H	V_{IH}	VCC=3.0V	0.7VCC	-	VCC	V	
	L	V_{IL}	VCC=3.0V	0	-	0.3VCC	V	
Power supply Current Operating)		ICC	VCC=3.0V	—	50	75	mA	Note1

Note1 ALL White Display pattern

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	ILED	-	160	-	mA	-
LED voltage	VLED+	15.6	18.0	19.2	V	Note 1
LED Life Time	-	50,000	-	-	Hr	Note 2,3,4

Note 1 : There are 1 Groups LED



Backlight Circuit

Note 2 : Ta = 25 ℃

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

Note 4 : The single LED lamp case

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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	1500	-	-	Note 4
Color Chromaticity	White	Wx	θ=0°、Φ=0	0.25	0.30	0.35	-	Note 2,6,7
		Wy		0.286	0.336	0.386	-	
Viewing angle	Hor.	ΘR	CR≧10	85	89	-	Deg.	Note 1
		ΘL		85	89	-		
	Ver.	ΦT		85	89	-		
		ΦB		85	89	-		
Brightness		-	-	1150	1250	-	cd/m²	Center of display
Uniformity		(U)	-	80	-	-	%	Note5

Ta=25±2℃

Note 1: Definition of viewing angle range

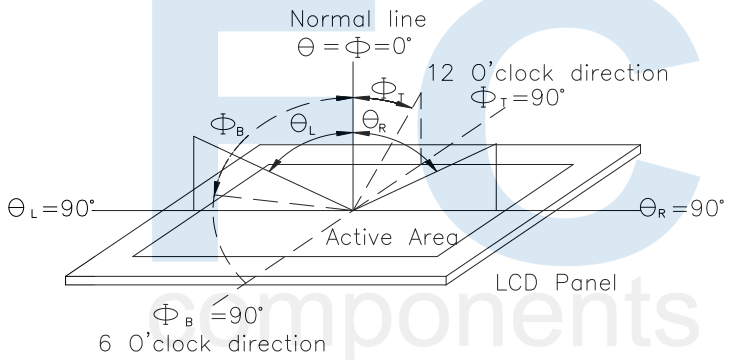


Fig.1. Definition of viewing angle

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.

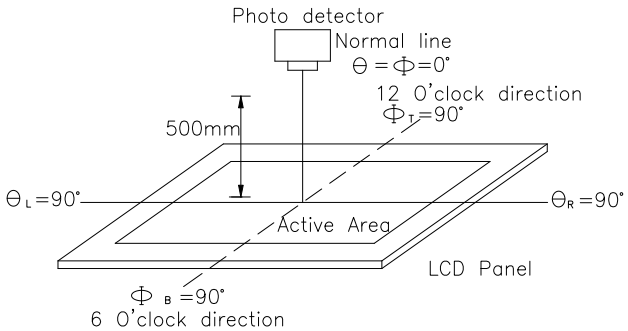


Fig. 2. Optical measurement system setup

Note 3: Definition of Response time:

The response time is defined as the LCD optical switching time interval between “White” state

Interface

L M PIN Definition

Pin No	Symbol	I/O	Function	Remark
1	GND	P	Ground.	
2	VCC	P	Power supply for TFT	
3	VCC	P	Power supply for TFT	
4	GND	P	Ground.	
5	NC	-	No connection	
6	GND	P	Ground.	
7	NC	-	No connection	
8	GND	P	Ground.	
9	UD	I	Up/down selection	Note1, 2
10	LR	I	Left /right selection	Note1, 2
11	/CSX	I	Chip select pin. 0: Chip can be accessed; 1: Chip cannot be accessed. If this pin is not used, please connect it to VCC.	
12	SCL	I	Serial clock input in SPI interface .If not use, let it open or VCC or GND.	
13	SDA	I	Serial data input / output pin in SPI interface operation. If not use, let it open.	
14	NC	-	No connection	
15	GND	P	Ground.	
16	B5	I	Blue Data bus	
17	B4	I	Blue Data bus	
18	B3	I	Blue Data bus	
19	B2	I	Blue Data bus	
20	B1	I	Blue Data bus	
21	B0	I	Blue Data bus	
22	NC	-	No connection	
23	NC	-	No connection	
24	GND	P	Ground.	
25	G5	I	Green Data bit	
26	G4	I	Green Data bit	
27	G3	I	Green Data bit	
28	G2	I	Green Data bit	
29	G1	I	Green Data bit	

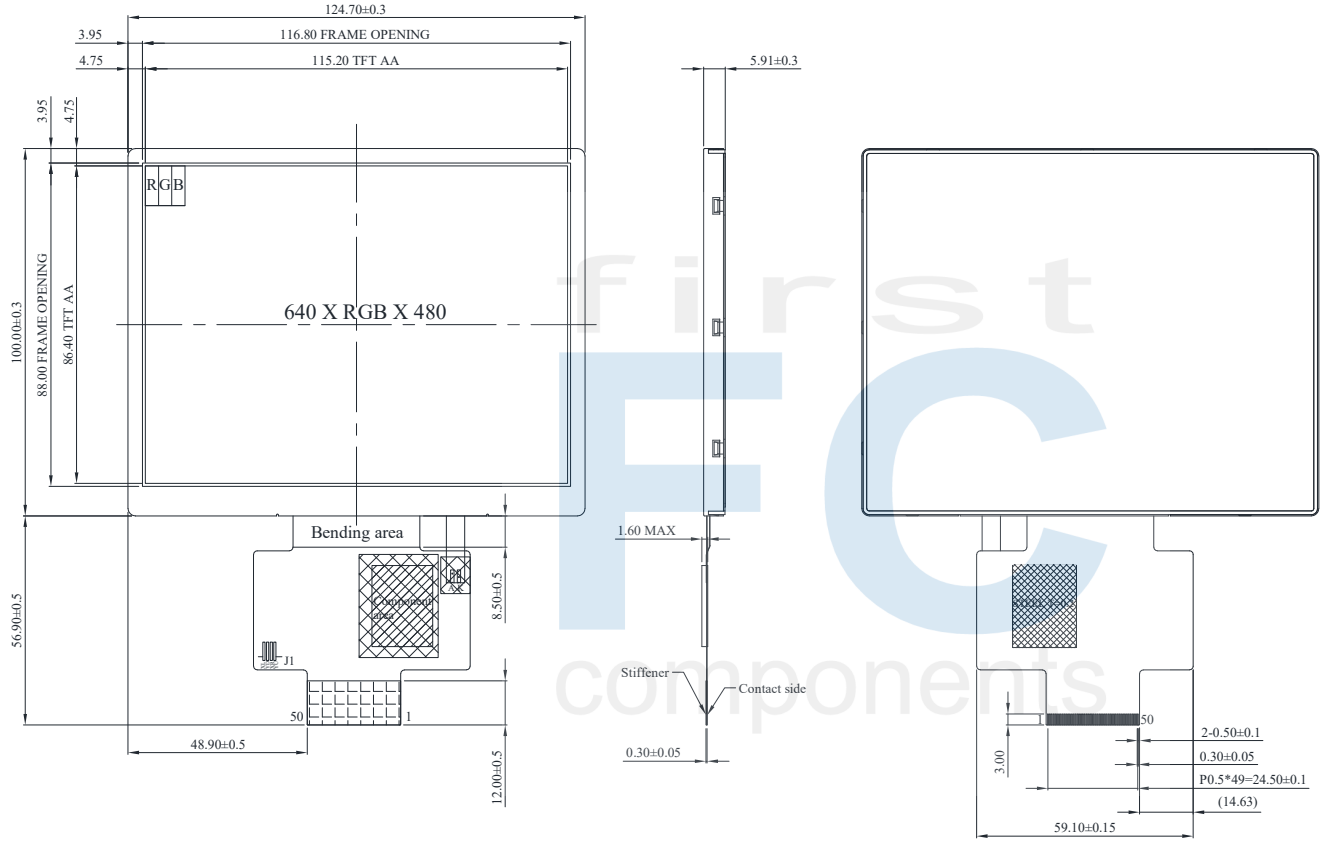
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30	G0	I	Green Data bit	
31	NC	-	No connection	
32	NC	-	No connection	
33	GND	P	Ground.	
34	NC	-	No connection	
35	NC	-	No connection	
36	GND	P	Ground.	
37	R5	I	Red Data bit	
38	R4	I	Red Data bit	
39	R3	I	Red Data bit	
40	R2	I	Red Data bit	
41	R1	I	Red Data bit	
42	R0	I	Red Data bit	
43	VLED-	P	Power supply for LED cathode	
44	VLED+	P	Power supply for LED anode	
45	DE	I	Data enable input in RGB interface.	
46	CLK	I	Pixel clock input in RGB interface.	
47	HS	I	Horizontal sync input in RGB interface.	
48	VS	I	Vertical sync input in RGB interface	
49	NC	-	No connection	
50	GND	P	Ground.	

Note 1: Selection of scanning mode

Setting of scan control input		**Scanning direction**
U/D	**L/R**	
L	H	Up to down, left to right
H	L	Down to up, right to left
L	L	Up to down, right to left
H	H	Down to up, left to right

Contour Drawing



TFT FPC

PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	GND	26	G4
2	VCC	27	G3
3	VCC	28	G2
4	GND	29	G1
5	NC	30	G0
6	GND	31	NC
7	NC	32	NC
8	GND	33	GND
9	UD	34	NC
10	LR	35	NC
11	/CSX	36	GND
12	SCL	37	R5
13	SDA	38	R4
14	NC	39	R3
15	GND	40	R2
16	B5	41	R1
17	B4	42	R0
18	B3	43	VLED-
19	B2	44	VLED+
20	B1	45	DE
21	B0	46	CLK
22	NC	47	HS
23	NC	48	VS
24	GND	49	NC
25	G5	50	GND

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

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