Winstar Display Co., LTD
華凌光電股份有限公司
WEB: https://www.winstar.com.tw E-mail: sales@winstar.com.tw

SPECIFICATION

CUSTOMER : _____

MODULE NO.: WF70-800480B2D#005-FC

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

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
first FC components			葉虹蘭
ISSUED DATE: 2020/09/21			

3.General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	800 x RGB x 480 (TFT)	dots
Module dimension	165 x 100.0x 7.2 (excluding frame)	mm
Active area	154.08 x 85.92	mm
Pixel Pitch	0.1926 X 0.179	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
Aspect Ratio	16:9	
Backlight Type	LED ,Normally White	
TFT Interface	24 bit RGB	
Color arrangement	RGB-STRIPE	
Driver IC	HX8264-E&HX8664-B or Equivalent	
With /Without TP	With RTP	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

4.Absolute Maximum Ratings

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

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℃

9.Interface

9.1. LCM PIN Definition

Pin	Symbol	Function	Remark
1	VLED-	Backlight ground	
2	VLED+	Power supply for backlight	
3	GND	Power ground	
4	VCC	Power for Digital Circuit	
5	R0	Red data(LSB)	Note 2
6	R1	Red data	Note 2
7	R2	Red data	
8	R3	Red data	
9	R4	Red data	
10	R5	Red data	
11	R6	Red data	
12	R7	Red data(MSB)	
13	G0	Green data(LSB)	Note 2
14	G1	Green data	Note 2
15	G2	Green data	
16	G3	Green data	
17	G4	Green data	
18	G5	Green data	
19	G6	Green data	
20	G7	Green data(MSB)	
21	B0	Blue data(LSB)	Note 2
22	B1	Blue data	Note 2
23	B2	Blue data	
24	B3	Blue data	
25	B4	Blue data	
26	B5	Blue data	
27	B6	Blue data	
28	B7	Blue data(MSB)	
29	GND	Power Ground	
30	CLK	Sample clock	Note 3
31	R/L	Right / Left selection	Note 4
32	Hsync	Horizontal Sync Input	

33	Vsync	Vertical Sync Input	
34	NC	No connection	
35	U/D	Up/down selection	
36	RESET	Global reset pin.	Note 6
37-40	NC	No connection	

I: input, O: output, P: Power

Note 1: When select DE mode, MODE=”1”, VS and HS must pull high.
When select SYNC mode, MODE= ”0”, DE must be grounded.

Note 2: When input 18 bits RGB data, the two low bits of R,G and B data must be grounded.

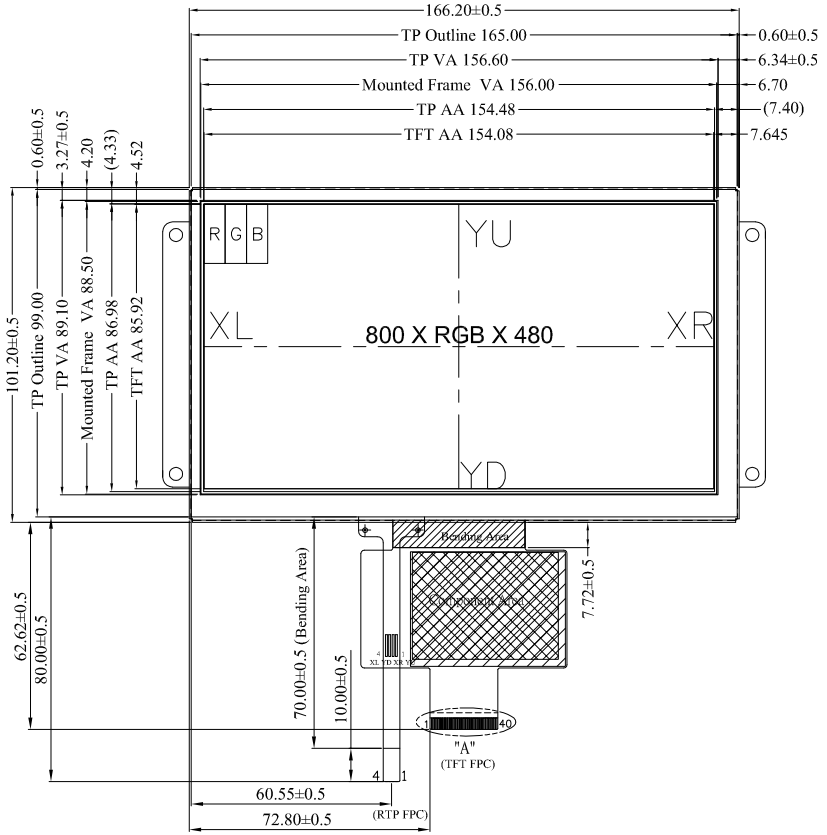
Note 3: Data shall be latched at the falling edge of DCLK.

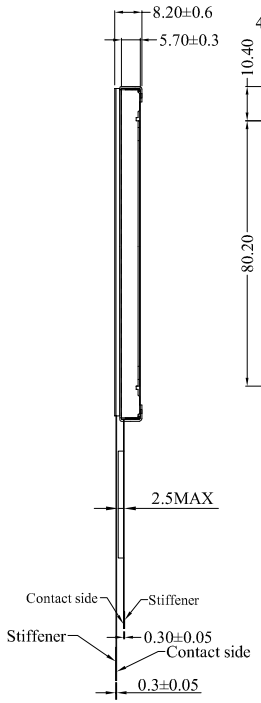
Note 4: Source Right or Left sequence control
R/L =”L”, shift left: last data=S1←S2←S3…←S1200=first data
R/L =”H”, shift left: last data=S1←S2←S3…←S1200=last data

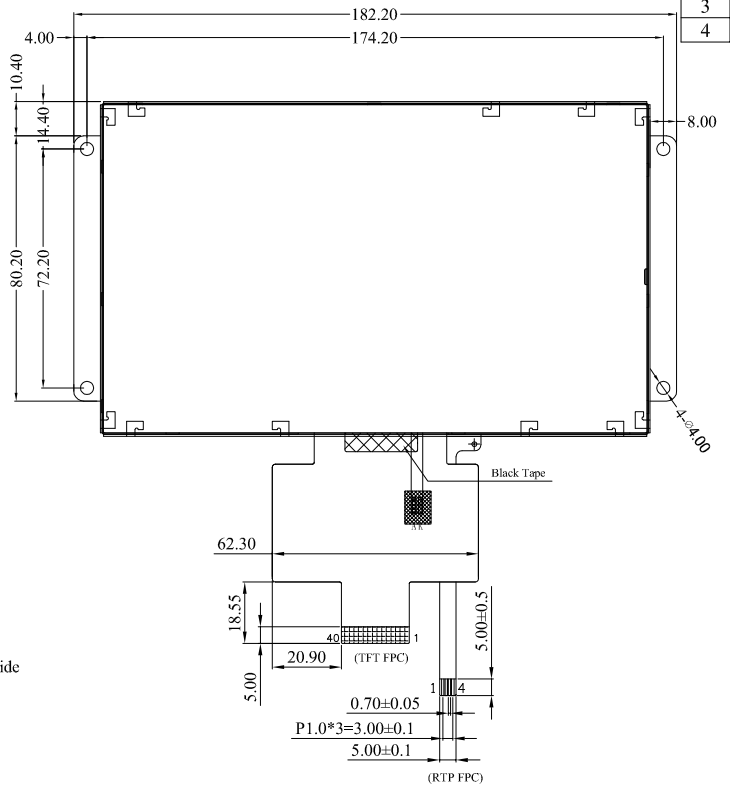
Note 5: Gate Up or Down scan control
U/D=”L”, STV2 output vertical start pulse and UD pin output logical “0” to gate driver
U/D=”H”, STV1 output vertical start pulse and UD pin output logical “1” to gate driver

Note 6: Global reset pin. Active low to enter reset state . Suggest to connect with an RC reset circuit for stability. Normally pull high.

Note 7: Dithering function enable control, normally pull high.
When DITHB=”1”, Disable internal dithering function,
When DITHB=”0”, Enable internal dithering function,





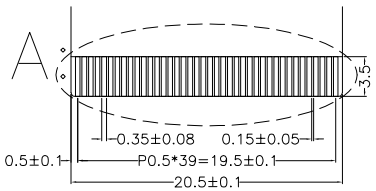


RTP FPC

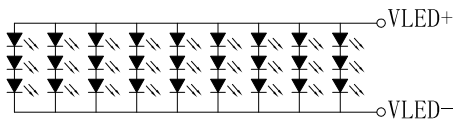
PIN NO.	SYMBOL
1	YU
2	XR
3	YD
4	XL

TFT FPC

PIN NO.	SYMBOL
1	VLED-
2	VLED+
3	GND
4	VCC
5	R0
6	R1
7	R2
8	R3
9	R4
10	R5
11	R6
12	R7
13	G0
14	G1
15	G2
16	G3
17	G4
18	G5
19	G6
20	G7
21	B0
22	B1
23	B2
24	B3
25	B4
26	B5
27	B6
28	B7
29	GND
30	CLK
31	R/L
32	Hsync
33	Vsync
34	NC
35	U/D
36	RESET
37	NC
38	NC
39	NC
40	NC



DETAIL A
SCALE 4/1



CIRCUIT DIAGRAM

13.Contour Drawing

1	Lcd Type	TFT
2	Viewing Direction	12 O'clock
3	Gray Scale Inversion Direction	6 O'clock
4	Screen size	7.0"(Diagonal)
5	Surface	Anti-glare
6	Display format	800X RGB X480
7	Active area	154.08(W) X 85.92(H)
8	Pixel Pitch	0.1926(W) X 0.179(H)
9	Operating Temperature	-20°C ~70°C
10	Storage Temperature	-30°C ~80°C
11	Color arrangement	RGB-STRIPE
12	Brightness	200min. 250typ. cd/m2

first FC components

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

SCALE: 1/1	UNIT: mm	華凌光電股份有限公司 WINSTAR DISPLAY CO.
REV: 0	PAGE: 1/1	
APPROVED	ERIC 2020.11.13	MODEL: WF70-800480B2D#005-FC
CHECKED	蔡宜珍 2020.11.13	TITLE: TFT MODULE
DRAWN	LICO 2020.11.13	DWG NO.: T-091134