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.: WF70-800480A6D#004-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: 2021/09/10			

TFT Display Inspection Specification: https://www.winstar.com.tw/technology/download.html
Precaution in use of TFT module: https://www.winstar.com.tw/technology/download/declaration.html

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	800 x RGBx480(TFT)	dots
Module dimension	181.2(W) x 105.24 (H) x 7.0 (D)	mm
Active area	152.4 x 91.44	mm
Pixel pitch	0.1905 x 0.1905	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
TFT Drive IC	HX8262+HX8678 or Equivalent	
TFT Interface	18-bit RGB	
Aspect Ratio	16:9	
Backlight Type	LED,Normally White	
With /Without TP	Without TP	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

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℃

Electrical Characteristics

1. Operating conditions:

Recommended Operation condition (GND=0V，Ta=25℃)

Item		Symbol	Min	Typ	Max	Unit	Remark
Power Supply Voltage		Vcc	3.0	3.3	3.6	V	
Power Supply Current		Icc		200	260	mA	black pattern
Input logic Voltage	High Level	VIH	0.7Vcc	-	Vcc	V	Note 1
	Low Level	VIL	0	-	0.3Vcc		

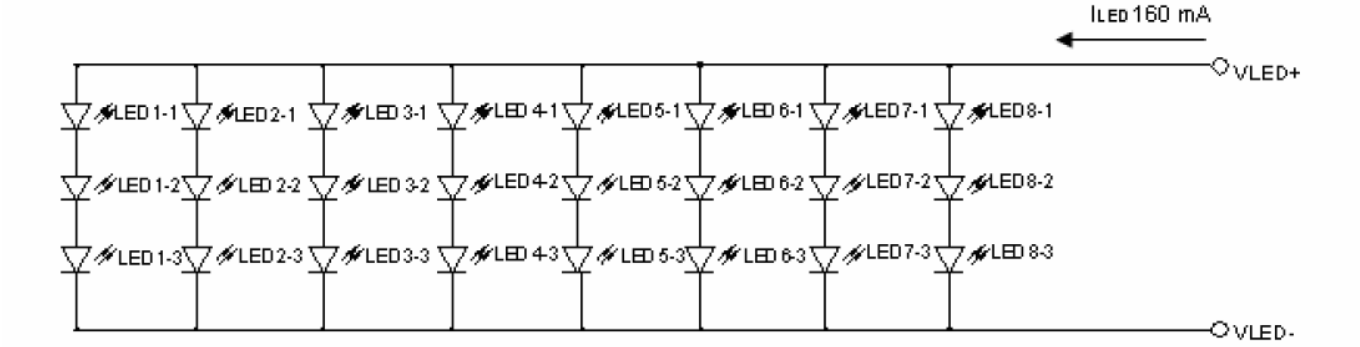
Note 1: DCLK, DE, R0~ R5, G0~ G5, B0~ B5.

Note 2 : This value is test for Vcc=3.3V , Ta=25 ℃ only

2. LED driving conditions

Item	Symbol	Min	Typ	Max	Unit	Remark
LED current	-	-	160	-	mA	-
Power Consumption	VBL+=9.8V		1568	-	mW	-
LED voltage	VBL+	8.4	-	11	V	Note 1
LED Life Time	-	-	50,000	-	Hr	Note 2,3,4

Note 1 : There are 1 Groups LED



Note 2 : Ta = 25 ℃

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

Note 4 : The single LED lamp case

Interface

LCM PIN Definition

Pin	Symbol	Function	Remark
1	GND	Power Ground	
2	GND	Power Ground	
3	NC	Not Connect	
4	Vcc	Power Supply for Digital Circuit	
5	Vcc	Power Supply for Digital Circuit	
6	Vcc	Power Supply for Digital Circuit	
7	Vcc	Power Supply for Digital Circuit	
8	NC	Not Connect	
9	DE	Data Enable	
10	GND	Power Ground	
11	GND	Power Ground	
12	GND	Power Ground	
13	B5	Blue Data 5 (MSB)	
14	B4	Blue Data 4	
15	B3	Blue Data 3	
16	GND	Power Ground	
17	B2	Blue Data 2	
18	B1	Blue Data 1	
19	B0	Blue Data 0 (LSB)	
20	GND	Power Ground	
21	G5	Green Data 5 (MSB)	
22	G4	Green Data 4	
23	G3	Green Data 3	
24	GND	Power Ground	
25	G2	Green Data 2	
26	G1	Green Data 1	
27	G0	Green Data 0(LSB)	
28	GND	Power Ground	
29	R5	Red Data 5 (MSB)	
30	R4	Red Data 4	

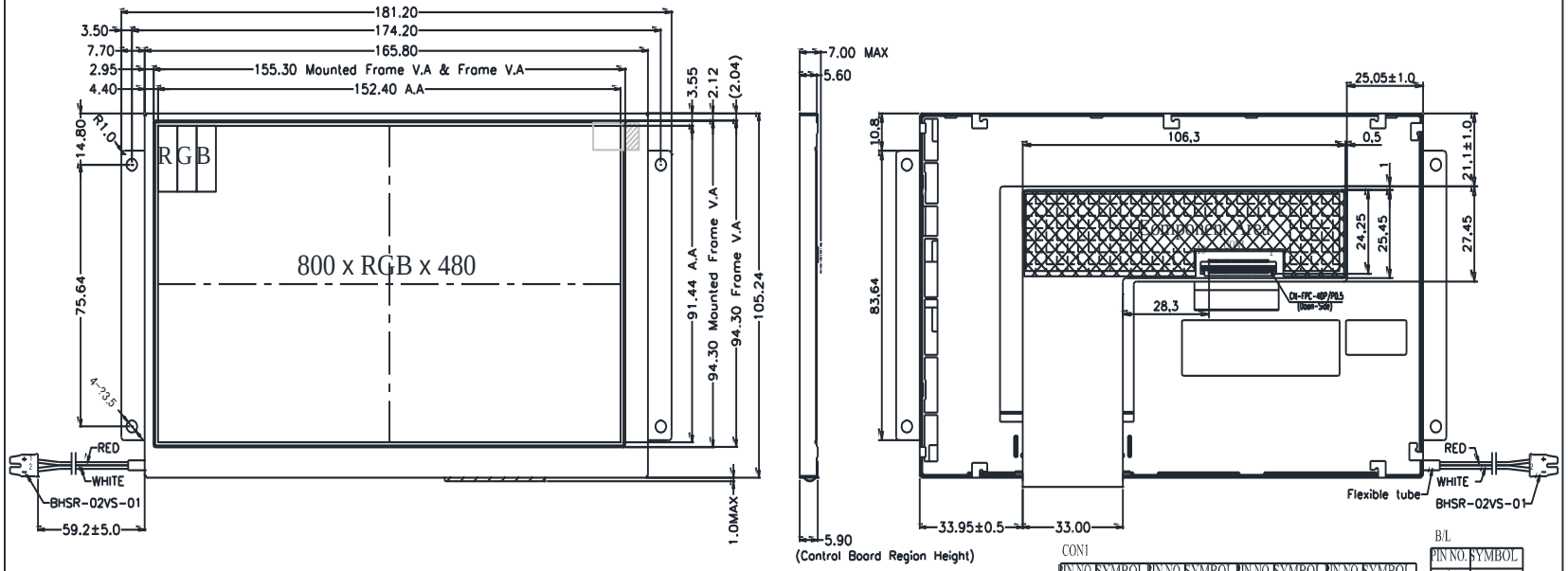
31	R3	Red Data 3	
32	GND	Power Ground	
33	R2	Red Data 2	
34	R1	Red Data 1	
35	R0	Red Data 0(LSB)	
36	GND	Power Ground	
37	GND	Power Ground	
38	DCLK	Clock Signals ; Latch Data at the Falling Edge	
39	GND	Power Ground	
40	GND	Power Ground	

Backlight Driving Part

Pin No.	Symbol	Description
1	VLED+	Red, LED_ Anode
2	VLED-	White, LED_ Cathode

Note: The backlight interface connector is a model SM02B-BHSS-1-TB manufactured by JST or equivalent. The matching connector part number is BHSR-20VS-1 manufactured by JST or equivalent.

Contour Drawing



CON1

PIN NO.	SYMBOL	PIN NO.	SYMBOL	PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	GND	11	GND	21	G5	31	R3
2	GND	12	GND	22	G4	32	GND
3	NC	13	B5	23	G3	33	R2
4	VCC	14	B4	24	GND	34	R1
5	VCC	15	B3	25	G2	35	R0
6	VCC	16	GND	26	G1	36	GND
7	VCC	17	B2	27	G0	37	GND
8	NC	18	B1	28	GND	38	DCLK
9	DE	19	B0	29	R5	39	GND
10	GND	20	GND	30	R4	40	GND

B/L

PIN NO.	SYMBOL
1	VLED+
2	VLED-

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