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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WF70-800480GD#YF0-FC

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	800 x RGBx480(TFT)	dots
Module dimension	165.0(W) x 100(H) x 5.7(D)	mm
Active area	154.08 x 85.92	mm
Dot pitch	0.0642 x 0.179	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
Backlight Type	LED, Normally White	
With /Without TP	Without TP	
Surface	Anti-Glare	

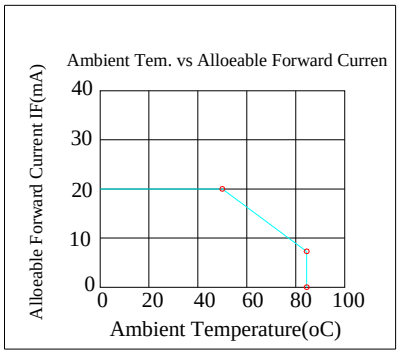
*Color tone slight changed by temperature and driving voltage.

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

Typical Operation Conditions

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Power voltage	VCC	3.0	3.3	3.6	V	
	AVDD	10.1	10.4	10.6	V	
	VGH	15.3	16.0	16.7	V	
	VGL	-7.7	-7.0	-6.3	V	
Input signal voltage	VCOM	2.6	3.6	4.6	V	
Input logic high voltage	VIH	0.7VCC	-	VCC	℃	
Input logic low voltage	VIL	0	-	0.3VCC	℃	

Note 1: Be sure to apply VCC and VGL to the LCD first, and then apply VGH.
Note 2: VCC setting should match the signals output voltage (refer to Note 3) of customer's system board.
Note 3: DCLK,HS,VS,RESET,U/D, L/R,DE,R0~R7,G0~G7,B0~B7,MODE,DITHB.
Note 4: Typical VCOM is only a reference value. It must be optimized according to each LCM. Please use VR and base on below application circuit.

Interface

LCM PIN Definition

FPC Connector is used for the module electronics interface. The recommended model is FH12A-50S-0.5SH manufactured by hirose

Pin No,	Symbol	I/O	Function	Remark
1	LED_Anode	P	Power supply for backlight	Note 8
2	LED_Anode	P	Power supply for backlight	Note 8
3	LED_Cathode	P	Backlight ground	Note 8
4	LED_Cathode	P	Backlight ground	Note 8
5	GND	P	Power ground	
6	VCOM	I	Common voltage	
7	VCC	P	Power for digital circuit	
8	MODE	I	DE/SYNC mode select	Note 1
9	DEN	I	Data input enable	
10	VSD	I	Vertical Sync input	
11	HSD	I	Horizontal sync input	
12	B7	I	Blue data (MSB)	
13	B6	I	Blue data	
14	B5	I	Blue data	
15	B4	I	Blue data	
16	B3	I	Blue data	
17	B2	I	Blue data	
18	B1	I	Blue data	Note 2
19	B0	I	Blue data(LSB)	Note 2
20	G7	I	Green data(MSB)	
21	G6	I	Green data	
22	G5	I	Green data	
23	G4	I	Green data	
24	G3	I	Green data	
25	G2	I	Green data	
26	G1	I	Green data	Note 2
27	G0	I	Green data(LSB)	Note 2
28	R7	I	Red data(MSB)	
29	R6	I	Red data	
30	R5	I	Red data	
31	R4	I	Red data	
32	R3	I	Red data	
33	R2	I	Red data	Note 2
34	R1	I	Red data	Note 2
35	R0	I	Red data(LSB)	
36	GND	P	Power ground	
37	DCLK	I	Sample clock	Note 3
38	GND	P	Power ground	
39	L/R	I	Left /right selection	Note 4,5
40	U/D	I	Up/ down selection	Note 4,5
41	VGH	P	Gate ON voltage	
42	VGL	P	Gate OFF voltage	

43	AVDD	P	Power for analog circuit	
44	RSTB	I	Global reset pin	Note 6
45	NC	-	No connection	
46	VCOM	I	Common voltage	
47	DITHB	I	Dithering function	Note 7
48	GND	P	Power ground	
49	NC	-	No connection	
50	NC	-	No connection	

I: input O: output P: power

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

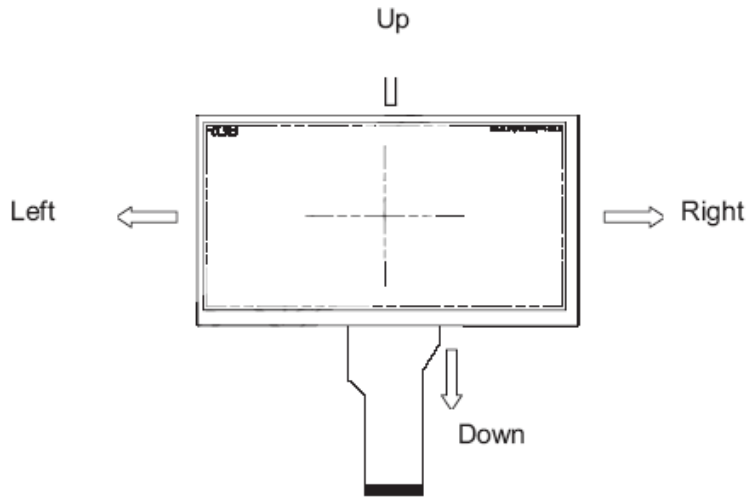
Note 2: When input 18 bits RGB data, the two low bits of R,G and B data must be grounded.

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

Note 4: Selection of scanning mode

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

Note 5: Definition of scanning direction
Refer to the figure as below:

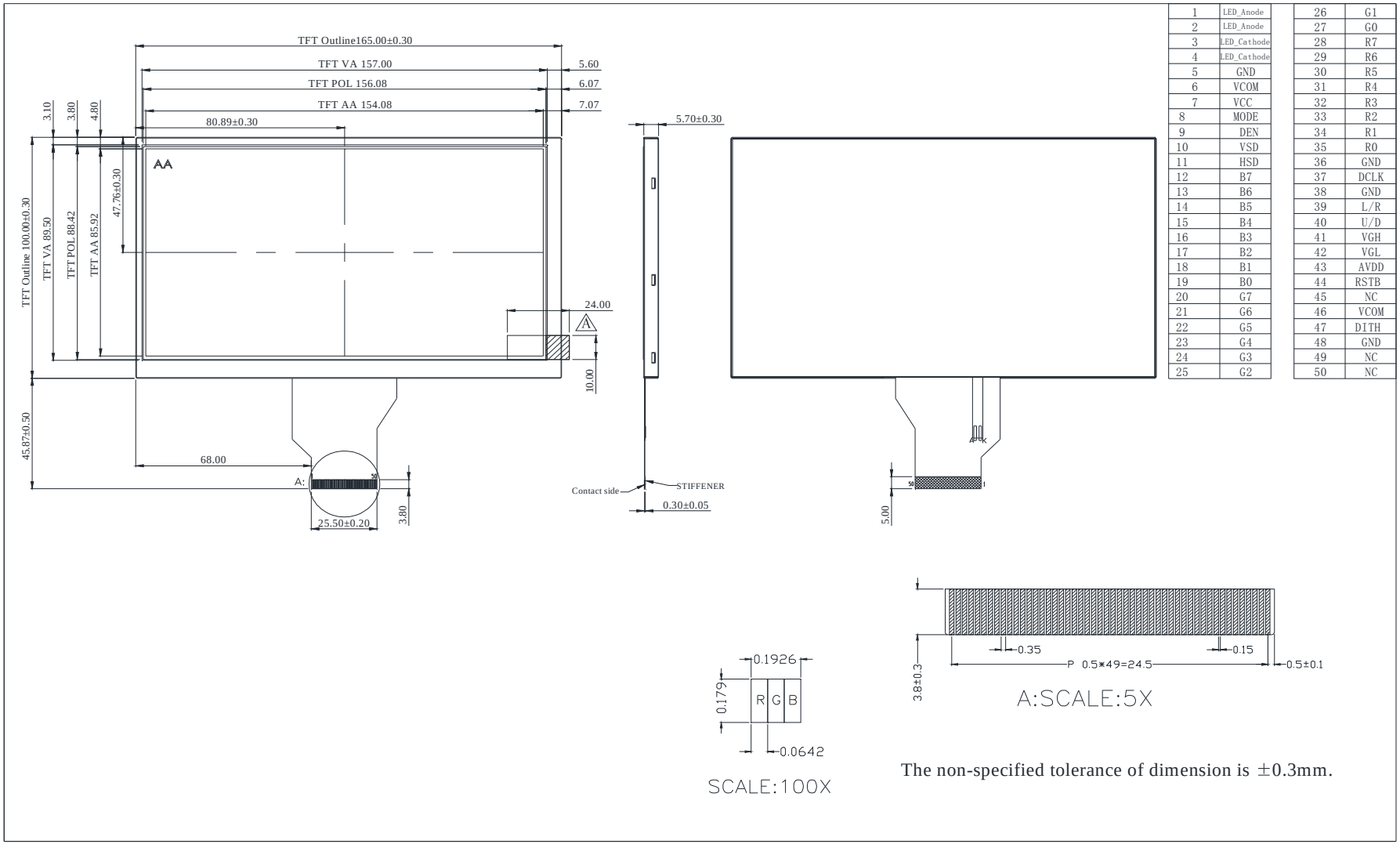


Note 6：Global reset pin. Active low to enter reset state. Suggest to connect with an RC reset circuit for stability. Normally pull high.

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

Note 8: Reserve for LED power input.,

Contour Drawing



1	LED_Anode	26	G1
2	LED_Anode	27	G0
3	LED_Cathode	28	R7
4	LED_Cathode	29	R6
5	GND	30	R5
6	VCOM	31	R4
7	VCC	32	R3
8	MODE	33	R2
9	DEN	34	R1
10	VSD	35	R0
11	HSD	36	GND
12	B7	37	DCLK
13	B6	38	GND
14	B5	39	L/R
15	B4	40	U/D
16	B3	41	VGH
17	B2	42	VGL
18	B1	43	AVDD
19	B0	44	RSTB
20	G7	45	NC
21	G6	46	VCOM
22	G5	47	DITH
23	G4	48	GND
24	G3	49	NC
25	G2	50	NC

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