



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF50BTIAGDNB0#

General Specifications

Item	Dimension	Unit
Size	5.0	inch
Dot Matrix	800 × 3(RGB) × 480	dots
Module dimension	147.0(W) × 104.0(H) × 4.8	mm
Active area	108(W) × 64.8 (H)	mm
Pixel pitch	0.135(W) × 0.135(H)	mm
LCD type	TFT, Normally White, Transmissive	
TFT Driver IC	ILI6122 + ILI5960 or Equivalent	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
TFT Interface	24-bit RGB	
Aspect Ratio	5:3	
Backlight Type	LED ,Normally White	
PCAP IC	ILI2511 or Equivalent	
PCAP Interface	USB (I2C available)	
PCAP FW Version	V 6. 0. 0. 0. 5.28.0.1	
Touch Panel	With PCAP	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

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

Electrical Characteristics

Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	VDD	3.0	3.3	3.6	V
Current for Driver(Black)	IDD	-	110	170	mA
Input logic high voltage	VIH	0.7 VDD	-	VDD	V
Input logic low voltage	VIL	0	-	0.3 VDD	
Supply Voltage For Touch Logic	VDDT	4.4	5.0	5.5	V

Interface

1. LCM PIN Definition

FPC Connector is used for the module electronics interface.

Pin	Symbol	Function	Remark
1	VLED-	Power for LED backlight (Cathode)	
2	VLED+	Power for LED backlight (Anode)	
3	GND	Power Ground	
4	VDD	Power voltage	
5	R0	Red data (LSB)	
6	R1	Red data	
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)	
14	G1	Green data	
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)	
22	B1	Blue data	
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	
31	DISP	Display on/off	
32	NC/HS	No connection /Horizontal sync input	(Note)
33	NC/VS	No connection /Vertical sync input	(Note)
34	DE	Data input enable	
35	NC	No connection	
36	GND	Power Ground	
37	NC	No connection	
38	NC	No connection	
39	NC	No connection	
40	NC	No connection	

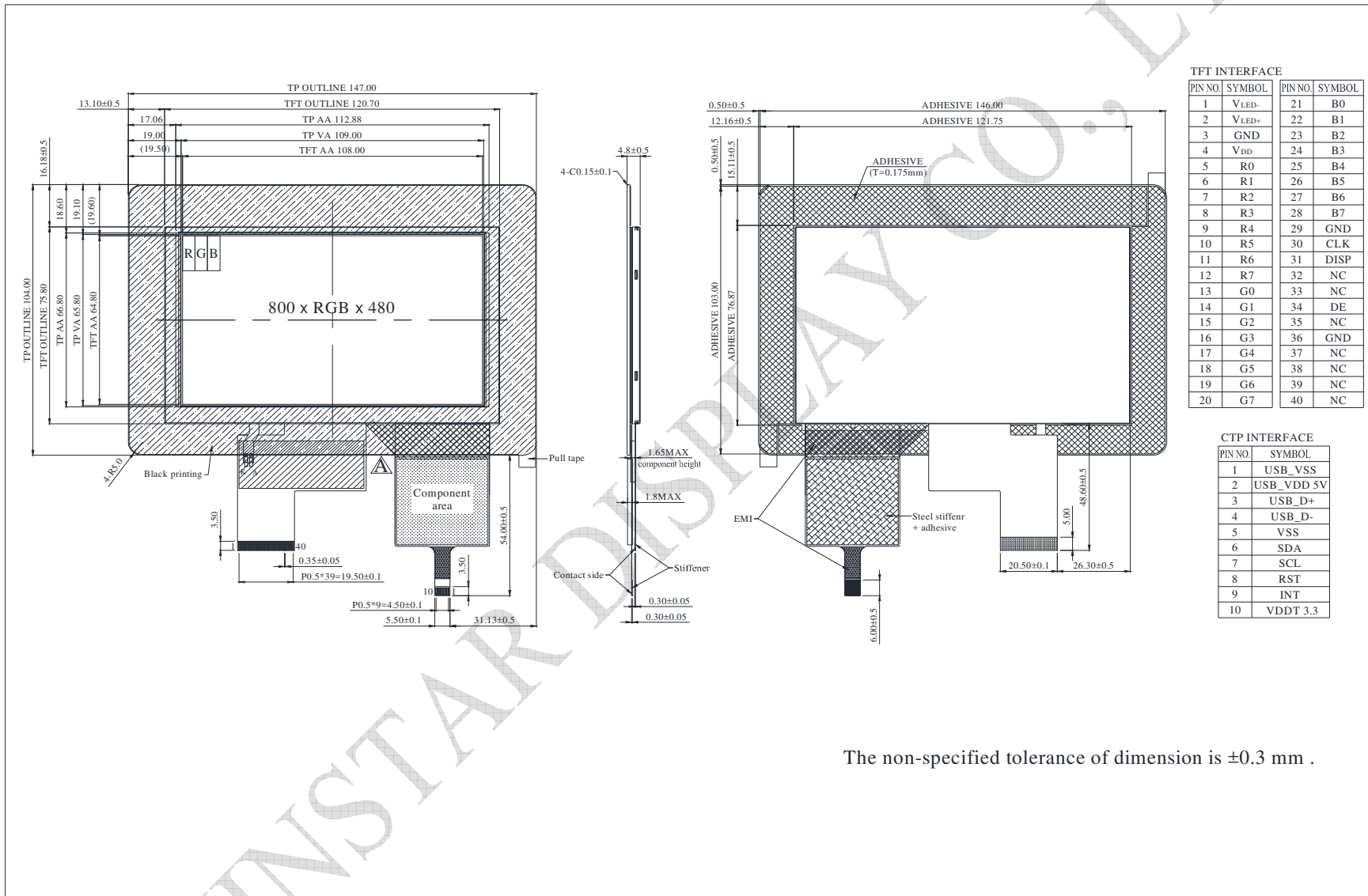
Note : This module default function is for DE mode, if this module want change to use SYNC mode , the FPC have to modify resistive jumper .

2. PCAP PIN Definition

Pin	Symbol	Function	Remark
1	USB_VSS	System ground	
2	USB_VDD 5V	Power supply	
3	USB_D+	Data +	
4	USB_D-	Data -	
5	VSS	System ground	
6	SDA	I2C data input and output	
7	SCL	I2C clock input	
8	RST	External Reset, Low is active	
9	INT	External interrupt to the host	
10	VDDT 3.3	Power supply	

Note: Interface can support both USB and I2C,USB is main function

Contour Drawing



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