Winstar Display Co., LTD
華凌光電股份有限公司

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SPECIFICATION

MODULE NO.: WF70D5SWAHLNG0#

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	1024 x RGB x 600(TFT)	dots
Module dimension	169.9(W) x 103.4(H) x 7.3 (D)	mm
Active area	154.2144 x 85.92	mm
Pixel pitch	0.1506x 0.1432	mm
LCD type	TFT, Normally Black, Transmissive	
View Angle	80/80/80/80	
TFT Driver IC	JD9165BA or Equivalent	
Backlight Type	LED, Normally White	
TFT Interface	LVDS	
PCAP IC	ILI2130 or Equivalent	
PCAP Interface	I2C	
PCAP FW Version	0x07.0x00.0x00.0x00.0x65.0x90.0x00.0x01	
PCAP Resolution	16384*16384	
Touch Panel	Projected Capacitive Touch Panel (PCAP)	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+85	℃
Storage Temperature	TST	-30	—	+85	℃

Electrical Characteristics

1.Operating conditions:

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	VDD	3.0	3.3	3.6	V
Analog Power	AVDD	-	11	-	V
TFT Gate ON Voltage	VGH	19.5	20	20	V
TFT Gate OFF Voltage	VGL	-8.5	-8	-7.5	V
TFT Common Voltage	Vcom	-	4.9	-	V
Power Current	IDD	-	18	27	mA
Analog Power Current	IAVDD	-	20.94	-	mA
TFT Gate ON Current	IVGH	-	1.5	-	mA
TFT Gate OFF Current	IVGL	-	1.5	-	mA
TFT Common Current	IVCOM	-	1	-	uA
Supply CTP	VDDT	3.0	3.3	3.6	V
	I_{CTP}	—	65	98	mA

2. LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	—	—	240	—	mA
LED voltage	VLED+	16.2	19.2	21.0	V
LED Life Time	—	50,000	—	—	Hr

Interface

1. LCM PIN Definition

Pin No.	Symbol	Function
1	VCOM	Common Voltage
2	VDD	Digital circuit
3	VDD	Digital circuit
4	NC	No connection
5	RESET	Global reset pin
6	STBYB	Standby mode, Normally pulled high STBYB = "1", normal operation STBYB = "0", timing controller, source driver will turn off, all output are High-Z
7	GND	Ground
8	RXIN0-	Negative LVDS differential data input
9	RXIN0+	Positive LVDS differential data input
10	GND	Ground
11	RXIN1-	Negative LVDS differential data input
12	RXIN1+	Positive LVDS differential data input
13	GND	Ground
14	RXIN2-	Negative LVDS differential data input
15	RXIN2+	Positive LVDS differential data input
16	GND	Ground
17	RXCLKIN-	Negative LVDS differential clock input
18	RXCLKIN+	Positive LVDS differential clock input
19	GND	Ground
20	RXIN3-	Negative LVDS differential data input
21	RXIN3+	Positive LVDS differential data input
22	GND	Ground
23	NC	No connection
24	NC	No connection
25	GND	Ground
26	NC	No connection
27	NC	No connection
28	SELB	6bit/8bit mode select H:6bit / L:8bit

29	AVDD	Power for Analog Circuit
30	GND	Ground
31	VLED-	LED_ Cathode
32	VLED-	LED_ Cathode
33	L/R	Horizontal inversion
34	U/D	Vertical inversion
35	VGL	Negative power for TFT
36	NC	No connection
37	NC	No connection
38	VGH	Positive power for TFT
39	VLED+	LED_ Anode
40	VLED+	LED_ Anode

2. PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.3V
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RST	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Ground for analog circuit

Contour Drawing

CTP FPC		TFT FPC	
PIN NO	SYMBOL	PIN NO	SYMBOL
1	VSS	1	VCOM
2	VDDT	2	VDD
3	SCL	3	VDD
4	NC	4	NC
5	SDA	5	RESET
6	NC	6	STBYB
7	/RST	7	GND
8	NC	8	RXIN0-
9	/INT	9	RXIN0+
10	VSS	10	GND
		11	RXIN1-
		12	RXIN1+
		13	GND
		14	RXIN2-
		15	RXIN2+
		16	GND
		17	RXCLKIN-
		18	RXCLKIN+
		19	GND
		20	RXIN3-
		21	RXIN3+
		22	GND
		23	NC
		24	NC
		25	GND
		26	NC
		27	NC
		28	SELB
		29	AVDD
		30	GND
		31	VLED-
		32	VLED-
		33	L/R
		34	U/D
		35	VGL
		36	NC
		37	NC
		38	VGH
		39	VLED+
		40	VLED+
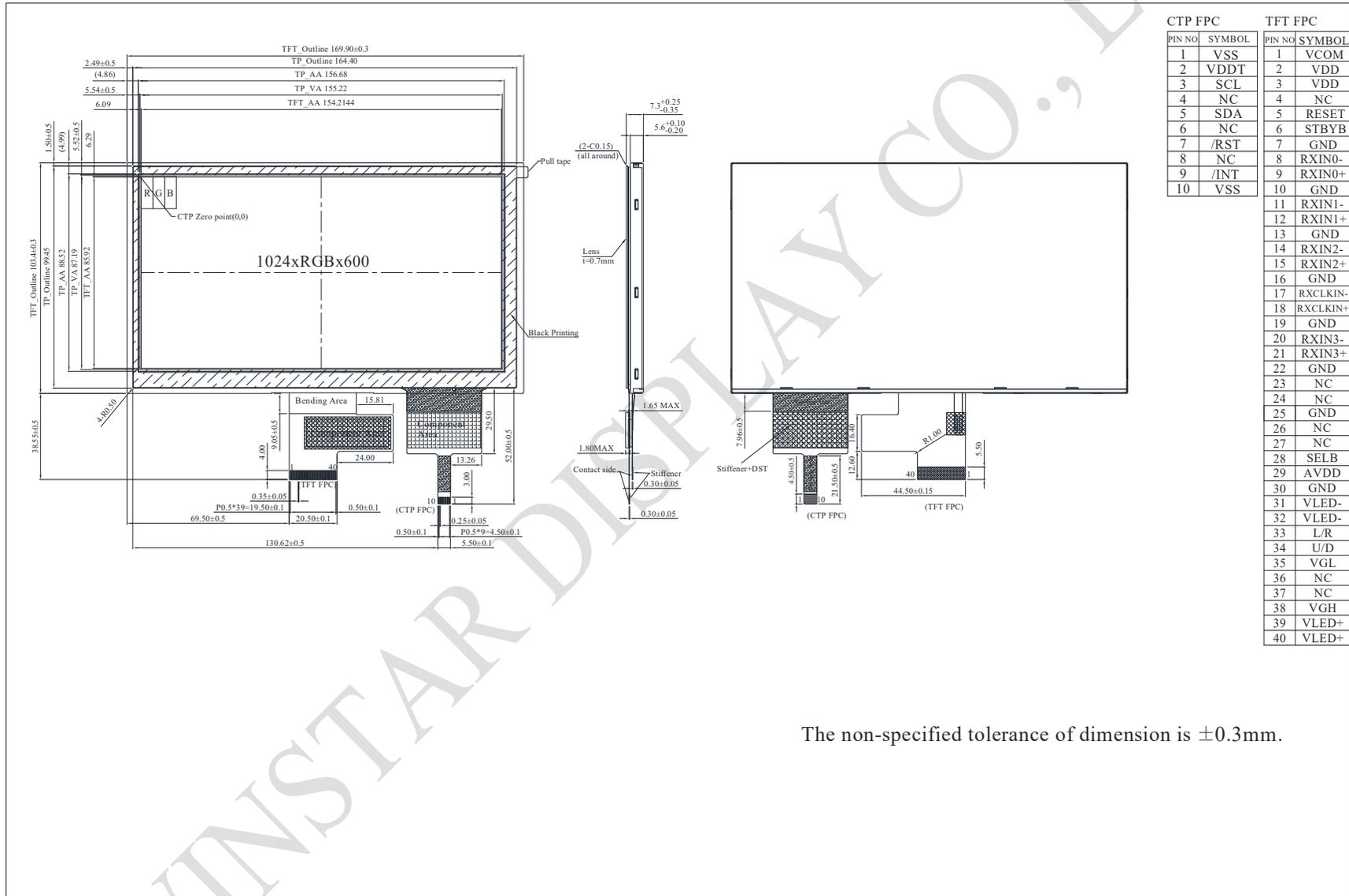
The non-specified tolerance of dimension is ±0.3mm.