



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF70A7TIAHLNB0#

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	1024 x RGB x 600(TFT)	dots
Module dimension	202.0 (W) x 135.5 (H) x 8.73 (D)	mm
Active area	154.2144 x 85.92	mm
Dot pitch	0.1506 x 0.1432	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
Aspect Ratio	16:9	
Control IC	--	
TFT Driver IC	EK79001HE + EK73215BCGA	
TFT Interface	LVDS	
Backlight Type	LED, Normally White	
Touch Panel	Projected capacitive touch screen	
PCAP IC	ILI2511 Or equivalent	
PCAP Interface	USB (I2C available)	
PCAP FW Version	V 6. 0. 0. 0. 7.65. 0. 1	
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

1. Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	DVDD	3.0	3.3	3.6	V
	AVDD	9.4	9.6	9.8	V
	VGH	17	18	19	V
	VGL	-6.6	-6.0	-5.4	V
Supply Voltage For Touch	VDDT	4.4	5.0	5.5	V
Input signal voltage	VCOM	3.1	3.3	3.6	V
Input logic high voltage	VIH	0.7 DVDD	-	DVDD	V
Input logic low voltage	VIL	0	-	0.3 DVDD	V

2. Current Consumption

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Current for Driver	IGH	-	0.2	1.0	mA
	IGL	-	0.2	1.0	mA
	IDVDD	-	4.0	10	mA
	IAVDD	-	20	50	mA

3. Backlight Driving Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Voltage for LED backlight	VL	8.4	9.8	10.8	V
Current for LED backlight	IL	--	300	--	mA
LED life time	-	-	50,000	-	Hr

Interface

1. LCM PIN Definition

FPC Connector is used for the module electronics interface. The recommended model is FH12A-40S-0.5SH manufactured by Hirose.

Pin No.	Symbol	I/O	Function
1	VCOM	P	Common Voltage
2	VDD	P	Digital circuit
3	VDD	P	Digital circuit
4	NC	---	No connection
5	Reset	I	Global reset pin
6	STBYB	I	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	P	Ground
8	RXIN0-	I	Negative LVDS differential data input
9	RXIN0+	I	Positive LVDS differential data input
10	GND	P	Ground
11	RXIN1-	I	Negative LVDS differential data input
12	RXIN1+	I	Positive LVDS differential data input
13	GND	P	Ground
14	RXIN2-	I	Negative LVDS differential data input
15	RXIN2+	I	Positive LVDS differential data input
16	GND	P	Ground
17	RXCLKIN-	I	Negative LVDS differential clock input
18	RXCLKIN+	I	Positive LVDS differential clock input
19	GND	P	Ground
20	RXIN3-	I	Negative LVDS differential data input
21	RXIN3+	I	Positive LVDS differential data input
22	GND	P	Ground
23	NC	---	No connection
24	NC	---	No connection
25	GND	P	Ground
26	NC	---	No connection
27	DIMO	O	Backlight CABC controller signal output
28	SELB	I	6bit/8bit mode select H:6bit / L:8bit

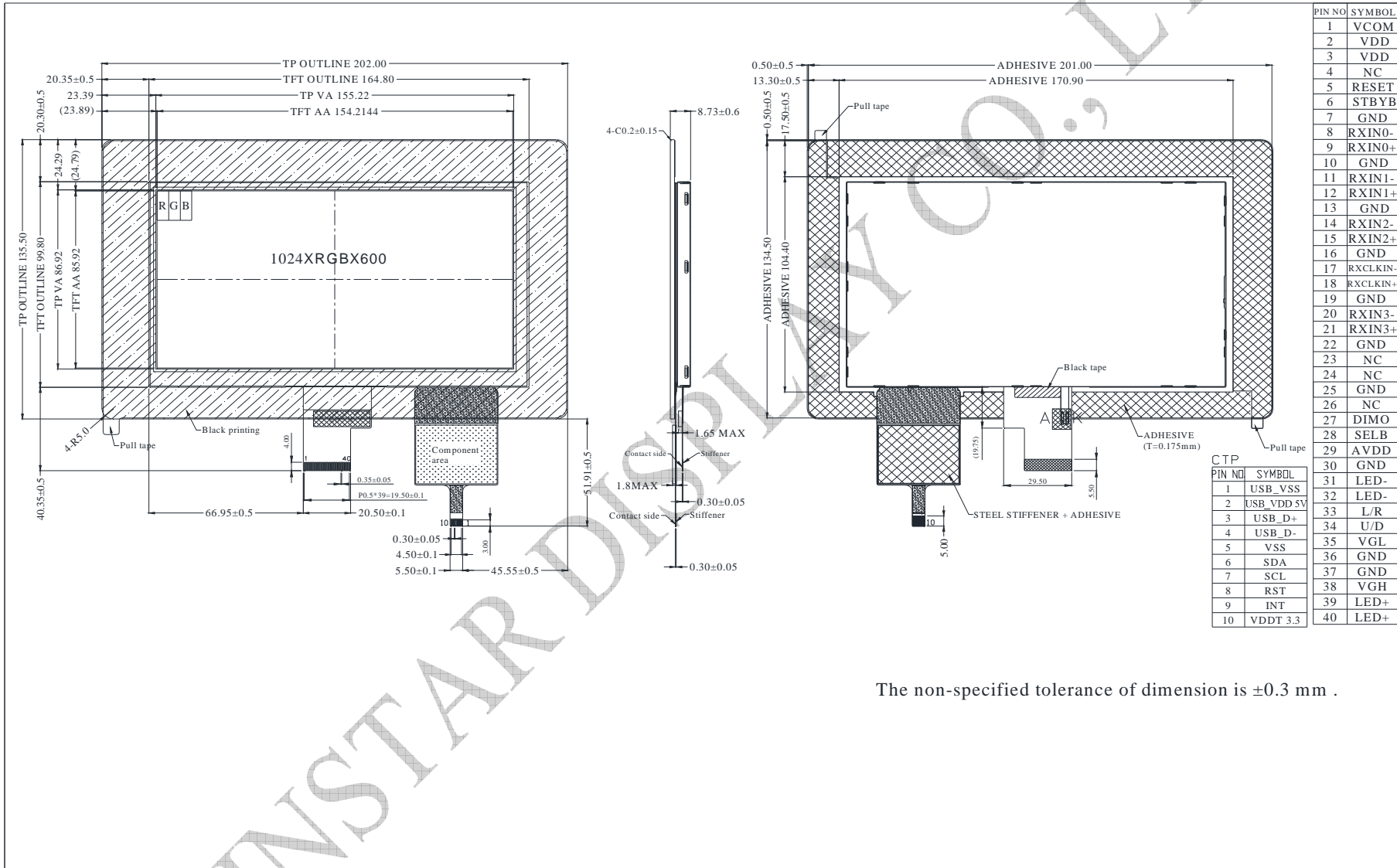
29	AVDD	P	Power for Analog Circuit
30	GND	P	Ground
31	LED-	P	LED Cathode
32	LED-	P	LED Cathode
33	L/R	I	Horizontal inversion
34	U/D	I	Vertical inversion
35	VGL	P	Negative power for TFT
36	GND	P	Ground
37	GND	P	Ground
38	VGH	P	Positive power for TFT
39	LED+	P	LED Anode
40	LED+	P	LED Anode

I:input ,O:output,P:power

2. PCAP PIN Definition

Pin	Symbol	Function
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

Contour Drawing



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