Winstar Display Co., LTD
華凌光電股份有限公司
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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WF39-480128CD#001-FC

General Specifications

Item	Dimension	Unit
Size	3.9	inch
Dot Matrix	480x128 x RGB (TFT)	dots
Module dimension	105.5(W) x 37.0(H) x 4.58(D)	mm
Active area	95.04 x 25.34	mm
Dot pitch	0.066(W)x 0.198(H)	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
Aspect Ratio	Bar Type	
TFT Driver IC	HX8278-A or equivalent	
TFT Interface	RGB-24BIT	
Backlight Type	LED,Normally White	
With /Without TP	With RTP	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

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FIRST Components s.r.l. Via Cavour, 69 21020 Buguggiate (VA) Italy Tel. +39 0332 1888005 Fax +39 0332 320856
; web: www.first-components.com

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

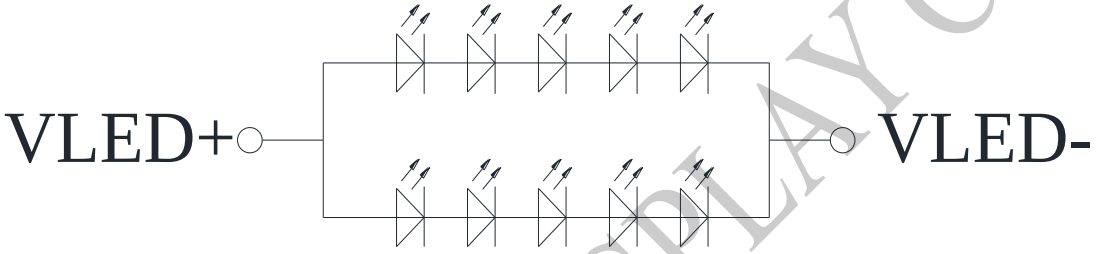
Item	Symbol	Condition	Min	Typ	Max	Unit	Remark
Supply Voltage For LCM	VCC	—	3.0	3.3	3.6	V	
Supply Current For LCM	ICC	—	—	15	25	mA	Note 1

Note 1 : This value is test for VCC =3.3V , Ta=25 ℃ only

2. LED driving conditions

Item	Symbol	MIN	TYP	MAX	Unit	Remark
Forward Current	ILED	—	40	—	mA	Note 1,2,3,4
Forward Voltage	VLED+	14	15	17	V	
Backlight life time	—	—	50000	—	hr	

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

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Interface

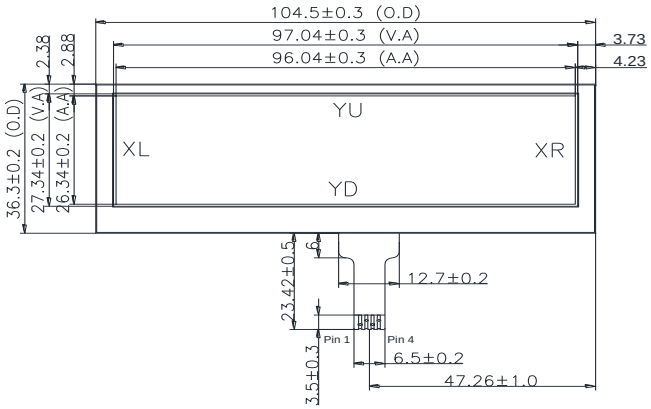
. LCM PIN Definition

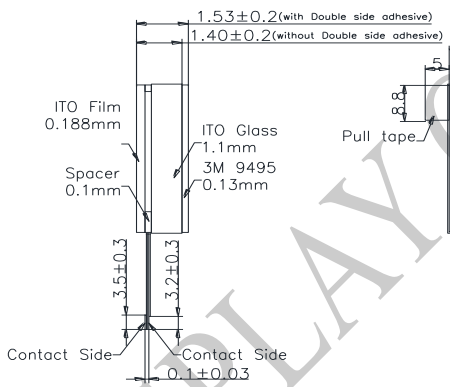
No.	Symbol	Description	Remark
1	VLED-	Backlight LED Cathode	
2	VLED+	Backlight LED Anode.	
3	GND	System Ground	
4	VCC	Power supply for logic operation	
5~12	R0~R7	Data bus	
13~20	G0~G7	Data bus	
21~28	B0~B7	Data bus	
29	GND	System Ground	
30	DCLK	Pixel clock signal	
31	DISP	Display on/off control	
32	HSYNC	Horizontal Sync signal	Note1
33	VSYNC	Vrtical Sync signal	Note1
34	NC	No connection (Option DE)	Note1
35	NC	No connection	
36	GND	System Ground	
37	XL	Left electrode	
38	YU	Top electrode	
39	XR	Right electrode	
40	YD	Bottom electrode	

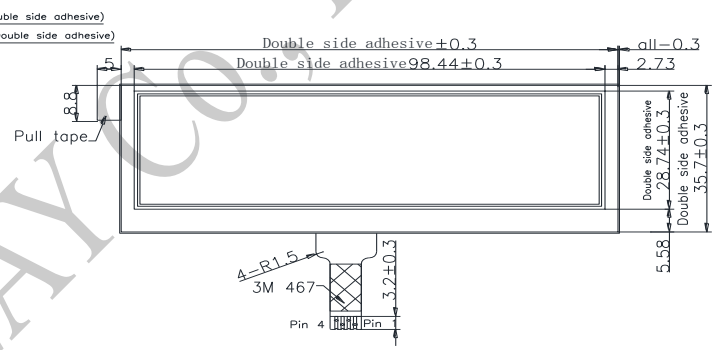
Note1: This module default function is for SYNC mode, if this module want change to use DE mode , the FPC have to modify resistive jumper

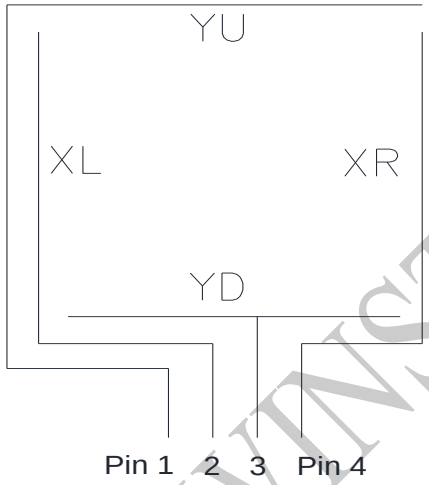
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Touch Panel Information







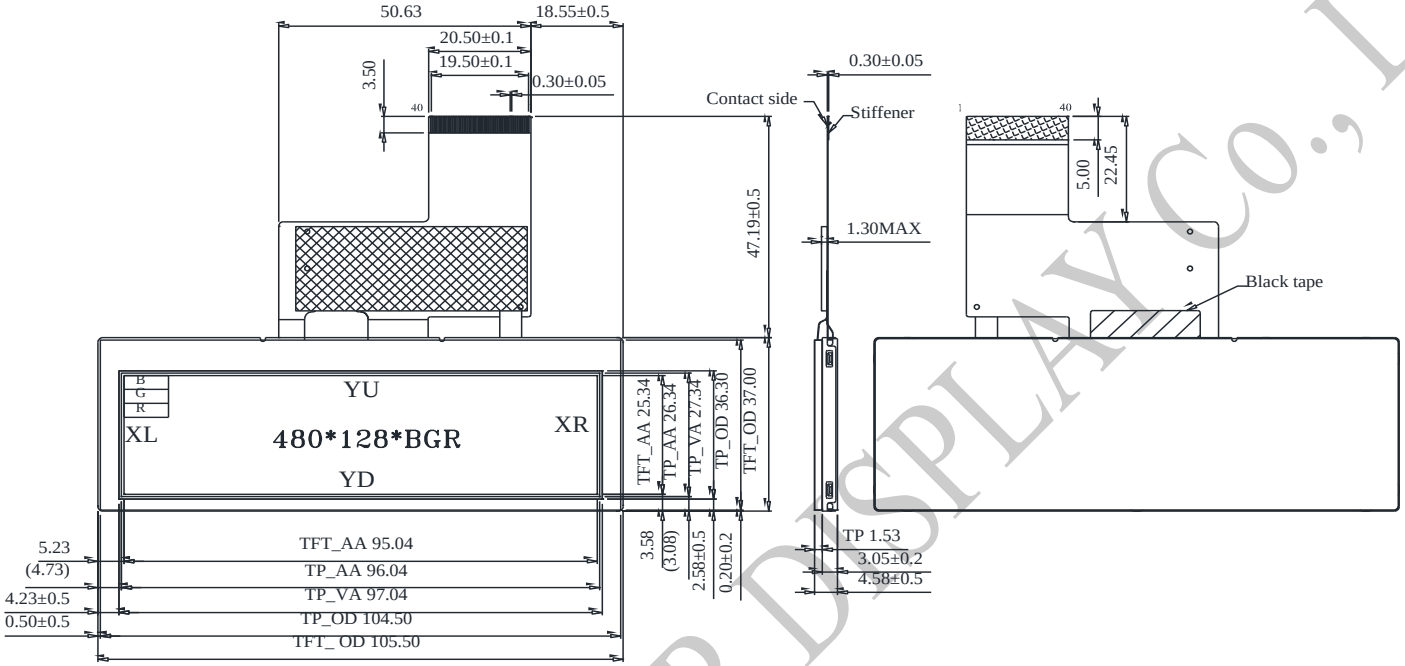


TOUCH PANEL PIN ASSIGNMENT

1	YU
2	XL
3	YD
4	XR

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Contour Drawing



PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	VLED-	21	B0
2	VLED+	22	B1
3	GND	23	B2
4	VCC	24	B3
5	R0	25	B4
6	R1	26	B5
7	R2	27	B6
8	R3	28	B7
9	R4	29	GND
10	R5	30	DCLK
11	R6	31	DISP
12	R7	32	HSYNC
13	G0	33	VSYNC
14	G1	34	NC
15	G2	35	NC
16	G3	36	GND
17	G4	37	XL
18	G5	38	YU
19	G6	39	XR
20	G7	40	YD

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

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