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

CUSTOMER : _____

MODULE NO.: WF40-480480EM#0SPW1-FC

General Specifications

Item	Dimension	Unit
Size	4.0	inch
Dot Matrix	480× 3(RGB) × 480	dots
Module dimension	78.8(H) * 82.95 (W) *6.37	mm
Active area	71.856(H)*70.176 (V)	mm
Pixel pitch	0.1497(H)*0.1462(V)	mm
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	1:1	
Interface	2-Lanes MIPI	
Driver IC	ST7701S or Equivalent	
Backlight Type	LED ,Normally White	
With /Without TP	With RTP	
Surface	Anti-glare	

*Color tone slight changed by temperature and driving voltage.

Electrical Characteristics

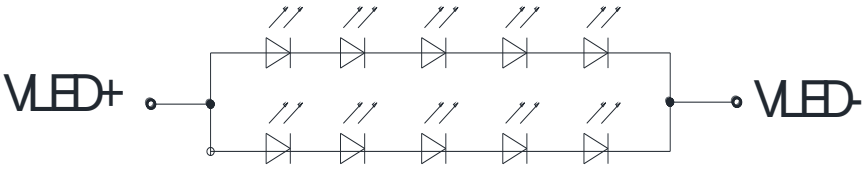
1. Typical Operation Conditions

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Interface Supply Voltage	VCI	2.5	2.8	3.6	V	
Power voltage	IOVCC	1.65	1.8	3.3	V	
Current for Driver(White)	I_{VCI}	-	39	58	mA	
	I_{IOVCC}	-	11	16.5	mA	

2. Backlight Driving Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	ILED	-	120	-	mA	
LED voltage	VLED+	13.5	15	17	V	Note 1
LED Life Time		50,000	-	-	Hr	Note 2,3,4

Note 1 : There are 1 Groups LED



CIRCUIT DIAGRAM

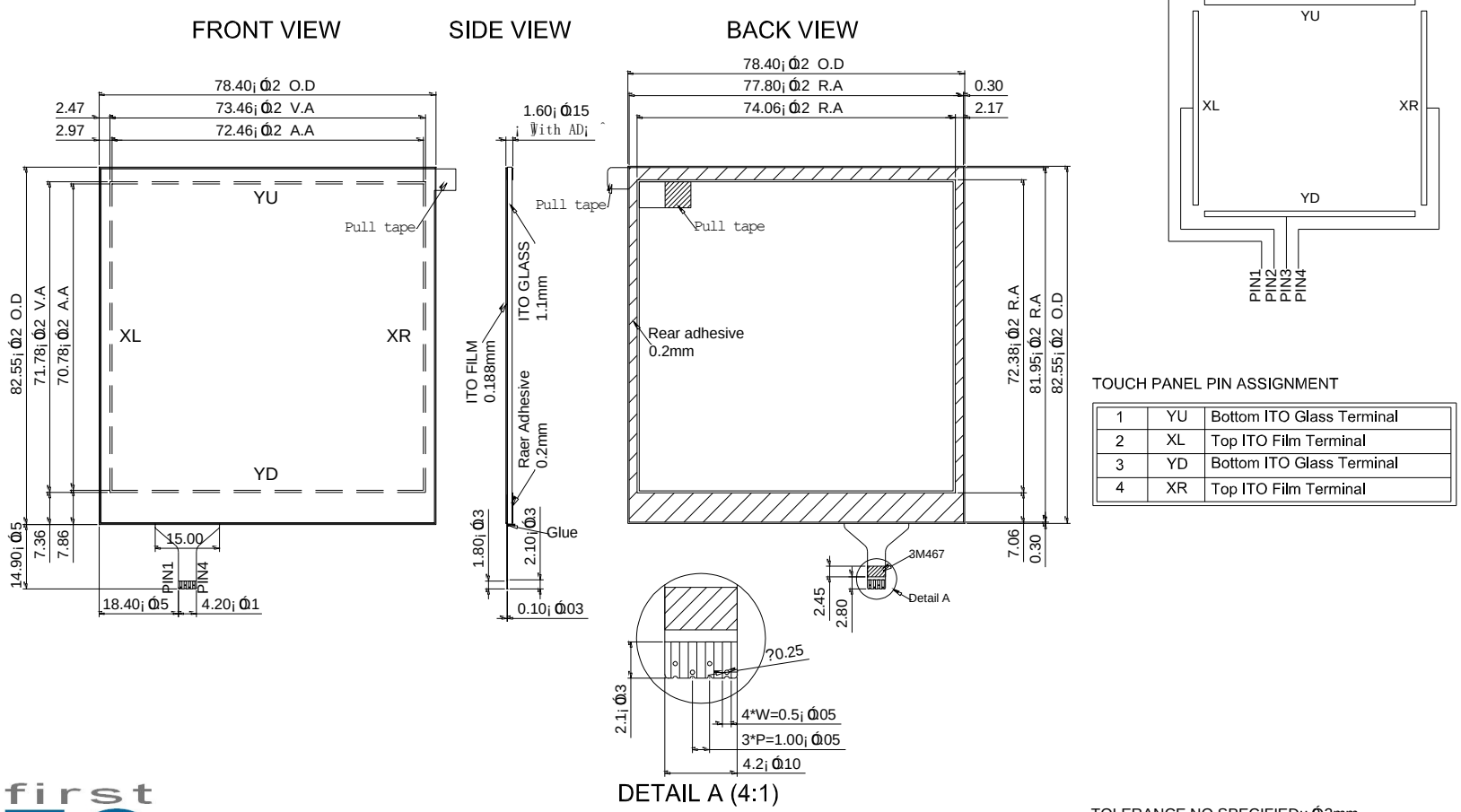
Note 2 : Ta = 25 ℃
Note 3 : Brightness to be decreased to 50% of the initial value
Note 4 : The single LED lamp case.

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	GND	Power ground
2	YU	Top electrode
3	XL	Left electrode
4	YD	Bottom electrode
5	XR	Right electrode
6	GND	Power ground
7	D0N	MIPI DSI differential data pair (Data lane 0)
8	D0P	
9	GND	Power ground
10	CLK_N	MIPI DSI differential clock pair
11	CLK_P	
12	GND	Power ground
13	D1N	MIPI DSI differential data pair(Data lane 1)
14	D1P	
15	GND	Power ground
16	IOVCC	I/O and interface power supply (1.8V)
17	RESET	Reset input
18	TE	Tearing effect output pin.
19	VCI	Analog power supply
20	VCI	Analog power supply
21	NC	No connect
22	VLED-	Power for LED backlight cathode
23	VLED+	Power for LED backlight anode
24	GND	Power ground

Touch Panel Information



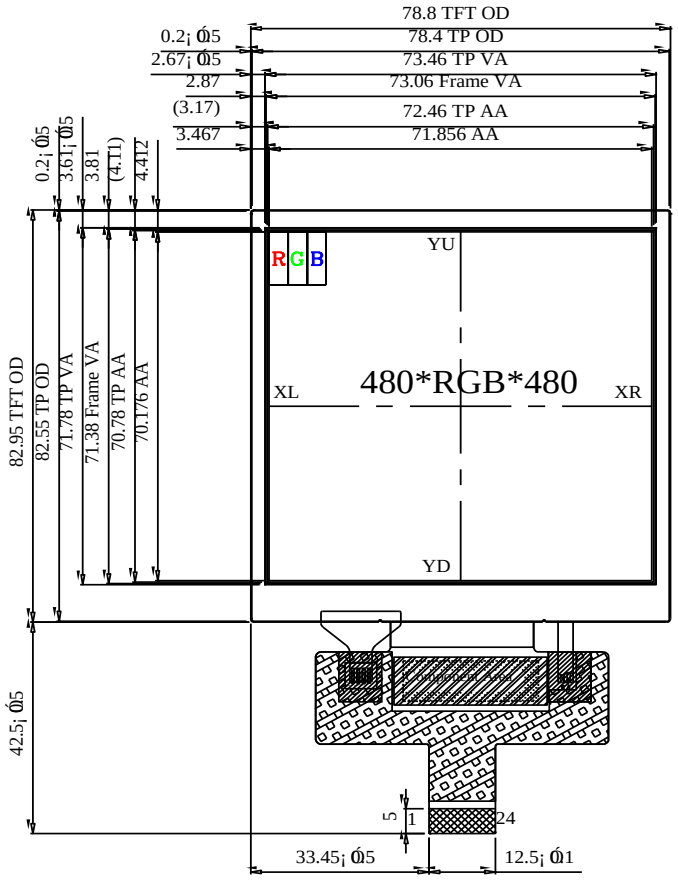
TOUCH PANEL PIN ASSIGNMENT

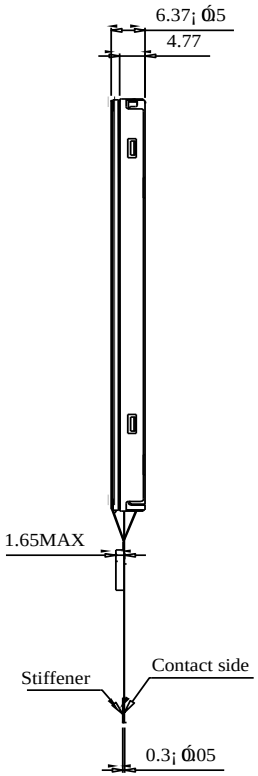
1	YU	Bottom ITO Glass Terminal
2	XL	Top ITO Film Terminal
3	YD	Bottom ITO Glass Terminal
4	XR	Top ITO Film Terminal

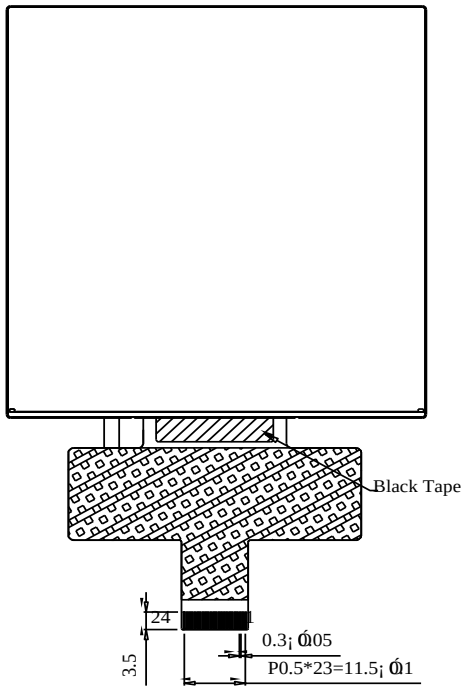
TOLERANCE NO SPECIFIED:¡ Ó3mm

first FC components

Contour Drawing







PIN No.	Pin Name
1	GND
2	YU
3	XL
4	YD
5	XR
6	GND
7	D0N
8	D0P
9	GND
10	CLK_N
11	CLK_P
12	GND
13	D1N
14	D1P
15	GND
16	IOVCC
17	RESET
18	TE
19	VCI
20	VCI
21	NC
22	VLED-
23	VLED+
24	GND

first FC components

The non-specified tolerance of dimension is ¡ Ó3 mm .