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

CUSTOMER : _____

MODULE NO.: WF35-320240LD#Z01-FC

General Specifications

Item	Dimension	Unit
Size	3.5	inch
Dot Matrix	320 x RGBx240(TFT)	dots
Module dimension	76.9x 63.9x 4.37	mm
Active area	70.08 x 52.56	mm
Dot pitch	0.073 x 0.219	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12o'clock	
Gray Scale Inversion Direction	6 o'clock	
Backlight Type	LED ,Normally White	
With /Without TP	With RTP	
Surface	Anti-Glare	

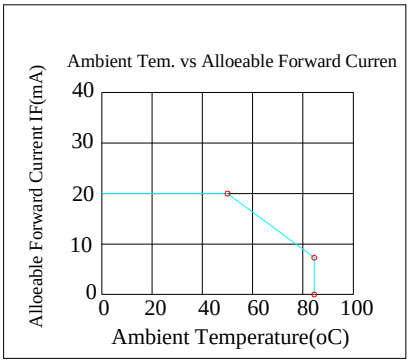
*Color tone slight changed by temperature and driving voltage.

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℃, 85% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 85% RH at 60℃



Electrical Characteristics

Operating conditions:

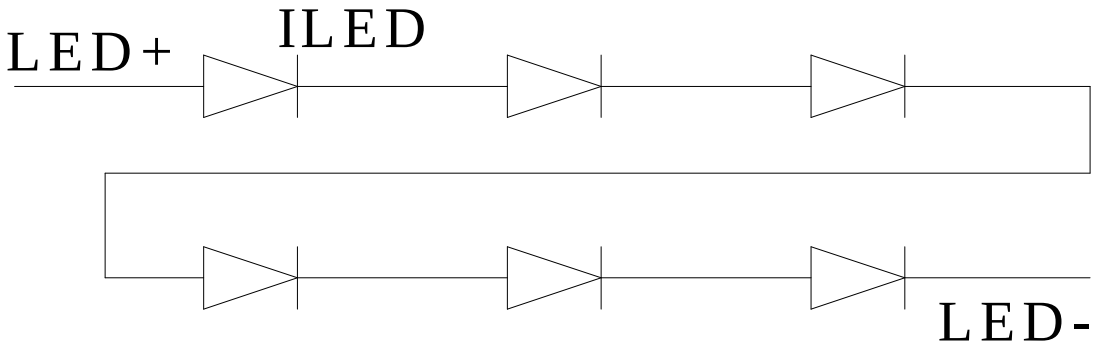
Item	Symbol	Condition	Min	Typ	Max	Unit	Remark
Supply Voltage For LCM	VCC	—	3.0	3.3	3.6	V	
Supply Current For LCM	ICC	—	—	4	10	mA	Note 1

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

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current		18	20	25	mA	
LED voltage	LED+	18.0	19.8	21	V	Note 1
LED Life Time		20,000	-	-	Hr	Note 2,3,4

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

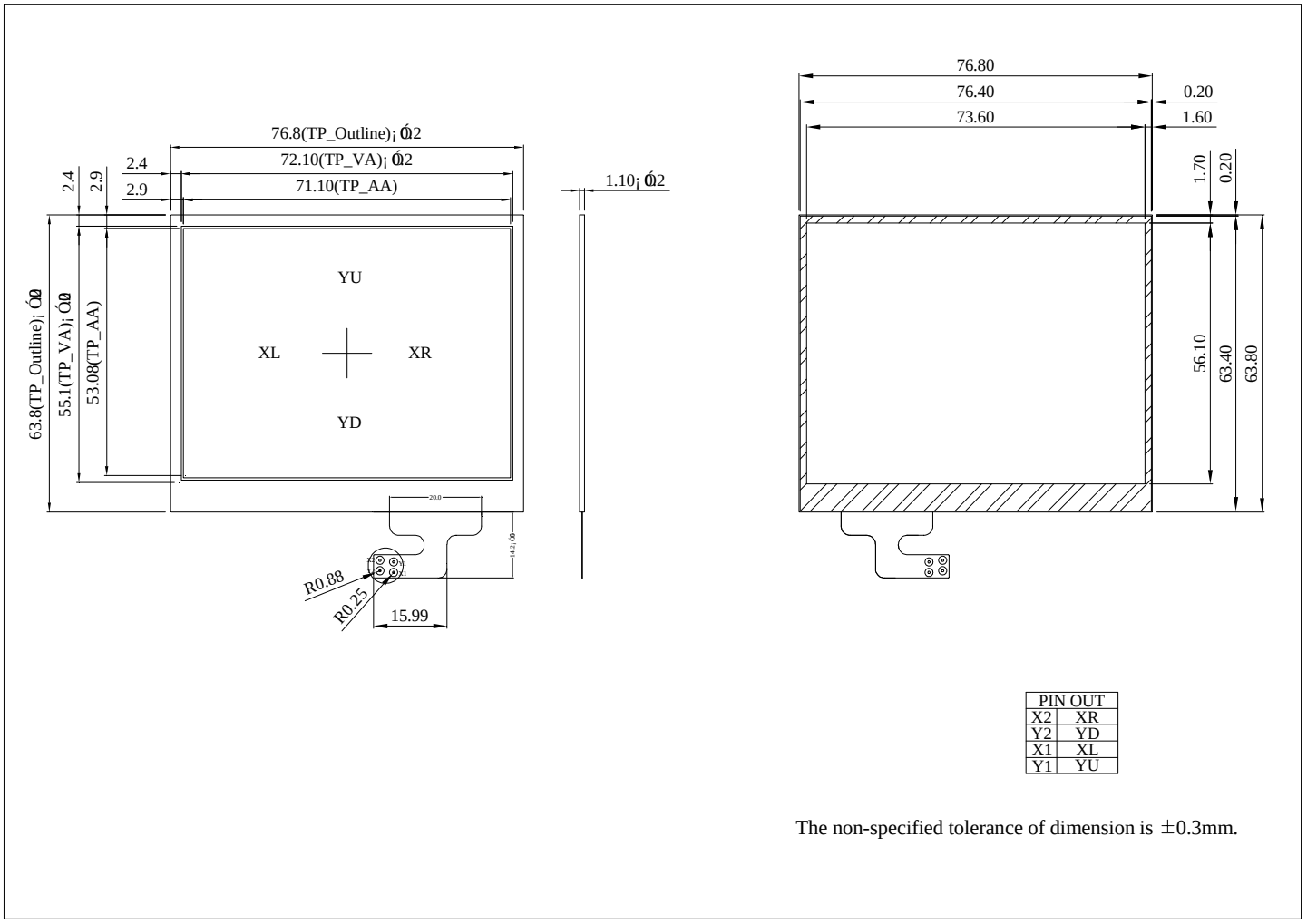
Interface

LCM PIN Definition

Pin	Symbol	Function	Remark
1	**LED-**	Power for LED backlight cathode	
2	**LED-**	Power for LED backlight cathode	
3	**LED+**	Power for LED backlight anode	
4	**LED+**	Power for LED backlight anode	
5	**YU**	Bottom electrode	
6	**XL**	Left electrode	
7	**NC**	No connect	
8	**/RESET**	Hardware reset	
9	**CS**	Chip select pin of serial interface	
10	**SPCLK**	Clock pin of serial interface	
11	**SPDAT**	Data input pin in serial mode	
12	**B0**	Data bus	
13	**B1**	Data bus	
14	**B2**	Data bus	
15	**B3**	Data bus	
16	**B4**	Data bus	
17	**B5**	Data bus	
18	**B6**	Data bus	
19	**B7**	Data bus	
20	**G0**	Data bus	
21	**G1**	Data bus	
22	**G2**	Data bus	
23	**G3**	Data bus	
24	**G4**	Data bus	
25	**G5**	Data bus	
26	**G6**	Data bus	
27	**G7**	Data bus	
28	**R0**	Data bus	
29	**R1**	Data bus	
30	**R2**	Data bus	
31	**R3**	Data bus	
32	**R4**	Data bus	
33	**R5**	Data bus	
34	**R6**	Data bus	
35	**R7**	Data bus	
36	**HSYNC**	Line synchronization signal	
37	**VSYNC**	Frame synchronization signal	
38	**DCLK**	Dot-clock signal and oscillator source	
39	**NC**	No connect	
40	**NC**	No connect	
41	**VCC**	Power Supply	
42	**VCC**	Power Supply	
43	**YD**	Right electrode	
44	**XR**	Top electrode	

45	**NC**	No connect	
46	**NC**	No connect	
47	**NC**	No connect	
48	**NC**	No connect	
49	**NC**	No connect	
50	**NC**	No connect	
51	**NC**	No connect	
52	**DE**	Display enable pin from controller. Internal pull high Connect to VDDIO or floating if not used	
53	**DGND**	System ground pin of the IC. Connect to system ground.	
54	**AVSS**	Grounding for analog circuit. Connect to system ground	

Touch Panel Information



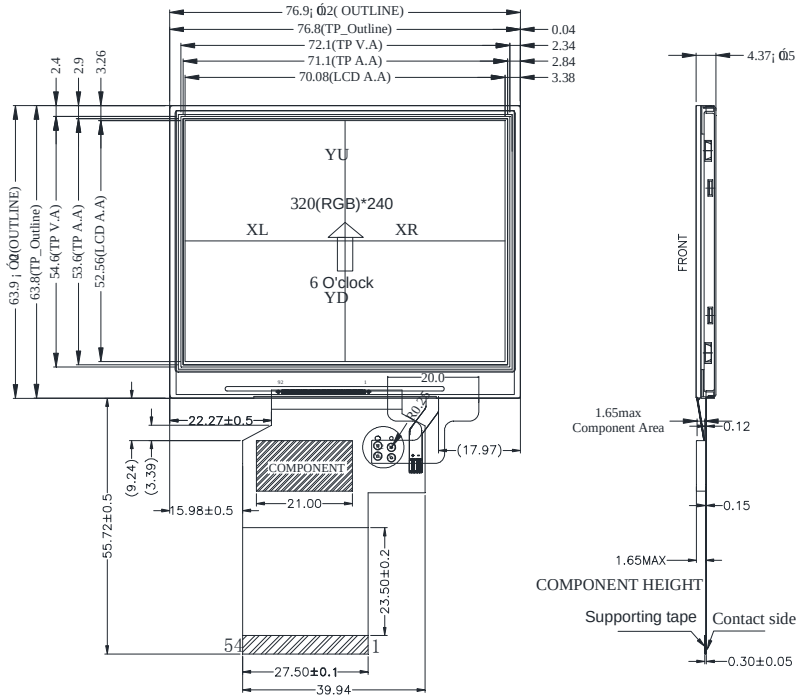
PIN OUT	
X2	XR
Y2	YD
X1	XL
Y1	YU

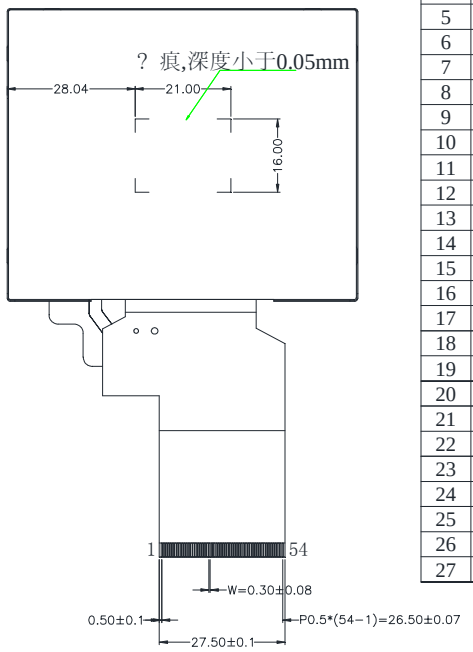
The non-specified tolerance of dimension is ±0.3mm.

Non-Proper Ways to handle the touch screen

1. Do not pull or crease the tail of the touch screen.
2. Tails, unless the drawing calls out for a bend, are to be free of permanent creases in the polyester, slight crease lines in the adhesive tail

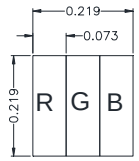
Contour Drawing





PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	LED-	28	R0
2	LED-	29	R1
3	LED+	30	R2
4	LED+	31	R3
5	YU	32	R4
6	XL	33	R5
7	NC	34	R6
8	/RESET	35	R7
9	CS	36	HSYNC
10	SPCLK	37	VSYNC
11	SPDAT	38	DCLK
12	B0	39	NC
13	B1	40	NC
14	B2	41	VCC
15	B3	42	VCC
16	B4	43	YD
17	B5	44	XR
18	B6	45	NC
19	B7	46	NC
20	G0	47	NC
21	G1	48	NC
22	G2	49	NC
23	G3	50	NC
24	G4	51	NC
25	G5	52	DE
26	G6	53	DGND
27	G7	54	AVSS

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



SCALE 1:100