

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF35XTYBCDBT0#

General Specifications

Item	Dimension	Unit
Size	3.5	inch
Dot Matrix	320 x RGBx240(TFT)	dots
Module dimension	93.5 x 66.44 x 9.0	mm
Active area	70.08 x 52.56	mm
Pixel pitch	0.219 x 0.219	mm
LCD type	TFT, normally black, Transmissive	
Viewing Angle	80/80/80/80	
Aspect Ratio	4:3	
Backlight Type	LED, Normally White	
Controller IC	SSD1963	
Interface	Digital 8080 family MPU 8bit/16bit	
Touch Panel	Resistive Touch Panel	
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	°C
Storage Temperature	TST	-30	—	+80	°C

Electrical Characteristics

1. Operating conditions: (CON2.Pin1=GND, Pin2=VDD)

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	3.0	3.1	3.3	V
Supply Current For LCM	IDD	-	50	75	mA

2. Backlight driving conditions (CON2.Pin33,34=VLED-, Pin35,36=VLED+)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operation Current For LED Driver	VLED=3.3V	-	150	225	mA
Power Consumption	VLED=3.3V	-	495	742.5	mW
Supply Voltage For LED Driver	VLED+	3.3	-	5	V
LED Life Time		-	50,000	-	Hr

Interface

1. LCM PIN Definition (CON2)

Pin	Symbol	Function
1	GND	System ground pin of the IC.Connect to system ground.
2	VDD	Power Supply : +3.3V
3	BLE	Backlight control signal , H: On \ L: Off
4	D/C	Data/Command select
5	WR	Write strobe signal
6	RD	Read strobe signal
7	DB0	Data bus
8	DB1	Data bus
9	DB2	Data bus
10	DB3	Data bus
11	DB4	Data bus
12	DB5	Data bus
13	DB6	Data bus
14	DB7	Data bus
15	DB8	Data bus (When select 8bits Mode, this pin is NC)
16	DB9	Data bus (When select 8bits Mode, this pin is NC)
17	DB10	Data bus (When select 8bits Mode, this pin is NC)
18	DB11	Data bus (When select 8bits Mode, this pin is NC)
19	DB12	Data bus (When select 8bits Mode, this pin is NC)
20	DB13	Data bus (When select 8bits Mode, this pin is NC)
21	DB14	Data bus (When select 8bits Mode, this pin is NC)
22	DB15	Data bus (When select 8bits Mode, this pin is NC)
23-24	NC	No connect
25	CS	Chip select
26	RST	Hardware reset
27-28	NC	No connect
29	XL	Left electrode
30	YU	Top electrode
31	XR	Right electrode
32	YD	Down electrode
33-34	VLED-	VLED- for B/L LED inverter (GND)
35-36	VLED+	VLED+ for B/L LED inverter (+3.3V)

Technical drawing of the LCD module showing top and side views with dimensions.

Top View Dimensions:

- Overall Width: 79.12 ± 0.5 TFT OD
- TP OD: 76.80
- TP V.A: 72.10
- TP A.A: 71.10
- A.A: 70.08
- TP V.A Offset: 1.21 ± 0.5
- TP A.A Offset: 3.51 ± 0.5
- A.A Offset: (4.01)
- A.A Offset: (4.52)

Bottom View Dimensions:

- Overall Height: 66.44 ± 0.5 TFT OD
- TP OD: 63.80
- TP V.A: 54.60
- TP A.A: 53.60
- A.A: 52.56

Other Dimensions:

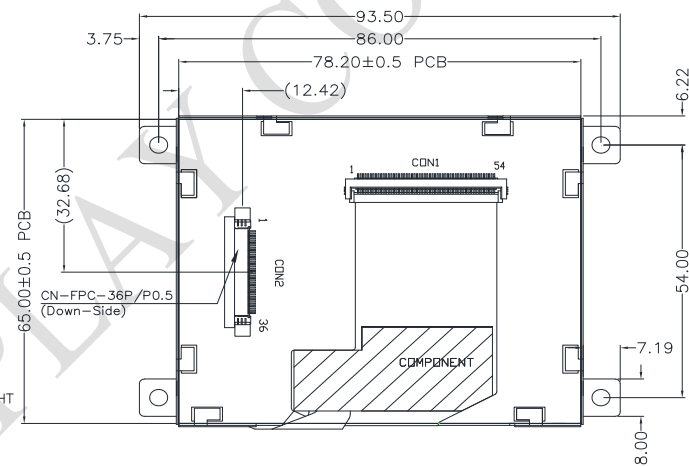
- TP V.A Offset: 0.72 ± 0.5
- TP A.A Offset: 3.12 ± 0.5
- A.A Offset: (3.62)
- A.A Offset: (4.14)
- TP V.A Offset: (4.01)
- TP A.A Offset: (4.52)
- A.A Offset: (4.52)

Module Label: 320xRGBx240

Mounting Holes: 4- $\phi 3.5$ PTH

Side View Dimensions:

- Overall Thickness: 9.00 MAX
- TP Thickness: 6.16 ± 0.5
- A.A Thickness: 5.06 ± 0.3
- Component Thickness: $1.65 \text{ MAX COMPONENT}$



CON2	
Pin	Symbol
1	GND
2	VDD
3	BLE
4	D/C
5	WR
6	RD
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	DB8
16	DB9
17	DB10
18	DB11
19	DB12
20	DB13
21	DB14
22	DB15
23	NC
24	NC
25	CS
26	RST
27	NC
28	NC
29	XL
30	YU
31	XR
32	YD
33	VLED-
34	VLED-
35	VLED+
36	VLED+

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