

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
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SPECIFICATION

MODULE NO.: WF52CTLBSDBN0#

General Specifications

Item	Dimension	Unit
Size	5.2	inch
Dot Matrix	480 x RGB x 128	dots
Module dimension	180.0 x 65.0 x 11.1	mm
Active area	127.152 x 33.9072	mm
Dot pitch	0.0883 x 0.2649	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	6 o'clock	
Gray Scale Inversion Direction	12 o'clock	
Aspect Ratio	Bar Type	
Backlight Type	LED, Normally White	
Driver IC	MR6566	
Interface	Digital 8080 family MPU 8bit	
Touch Panel	Without Touch Panel	
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. Operating condition

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD5V	4.5	5.0	5.5	V
Supply Current For LCM	IDD	-	500	750	mA
LED Life Time		50,000	-	-	Hr

Interface

1.LCM PIN Definition (CON4)

Pin	Symbol	Function
1	GND	Ground.
2	NC	No connect
3	NC	No connect
4	D/C	Data/Command select
5	WR	Write control
6	RD	Read control
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
15-24	NC	No connect
25	CS	Chip select
26	RESET	Reset
27	LR	Right /Left selection; Default R/L is Pull High
28	UD	Up/down selection; Default U/D is Pull High
29-32	NC	No connection
33-34	GND	Ground.
35-36	VDD5V	Power Supply (+5V)

2. LCM PIN Definition CON1**(MCU8080 the same with the WG24064A for RA6963 serial)**

Pin	Symbol	Function
1	FG	System round pin of the IC. Connect to system ground
2	GND	Ground.
3	VDD5V	Power Supply (+5V)
4	NC	No connect
5	WR	Write control
6	RD	Read control
7	CS	Chip select
8	D/C	Data/Command select
9	NC	No connection
10	RESET	Reset
11	DB0	Data bus
12	DB1	Data bus
13	DB2	Data bus
14	DB3	Data bus
15	DB4	Data bus
16	DB5	Data bus
17	DB6	Data bus
18	DB7	Data bus
19-20	NC	No connection
21	VDD5V	Power Supply (+5V)
22	GND	Ground.
23-25	NC	No connection
26	GND	Ground.

3. USB (USB upgrade image file)

Pin	Symbol	Function
1	5V	Power 5V
2	D-	Data line -
3	D+	Data line +
4	NC	No connection
5	GND	Power Ground

Technical drawing of the 480xRGBx128 LCD module, showing dimensions in millimeters (mm).

Top View Dimensions:

- Overall Width: 180.0 ± 0.5 PCB_OD
- Overall Height: 65.0 ± 0.5 PCB_OD
- Internal Widths: 176.0, 141.70 FR OD, 133.0 TFT_VA, 127.152 TFT_AA
- Internal Heights: 54.0, 51.17 FR OD, 39.0 TFT_VA, 33.9072 TFT_AA
- Mounting Hole Dimensions: 4- $\varnothing 3.5$ PTH, 4- $\varnothing 7.5$ PAD
- Bottom Mounting: 44.00, 68.00
- Right Side Mounting: 2.00, 13.0, $P2.54 \times 12 = 30.48$, 4.13, 2.54

Side View Dimensions:

- Overall Thickness: 11.10 MAX
- Internal Thicknesses: 8.80 ± 0.2 , 4.70, 2.50, 1.60(PCB)
- Mounting Hole Thickness: $t = 0.50$

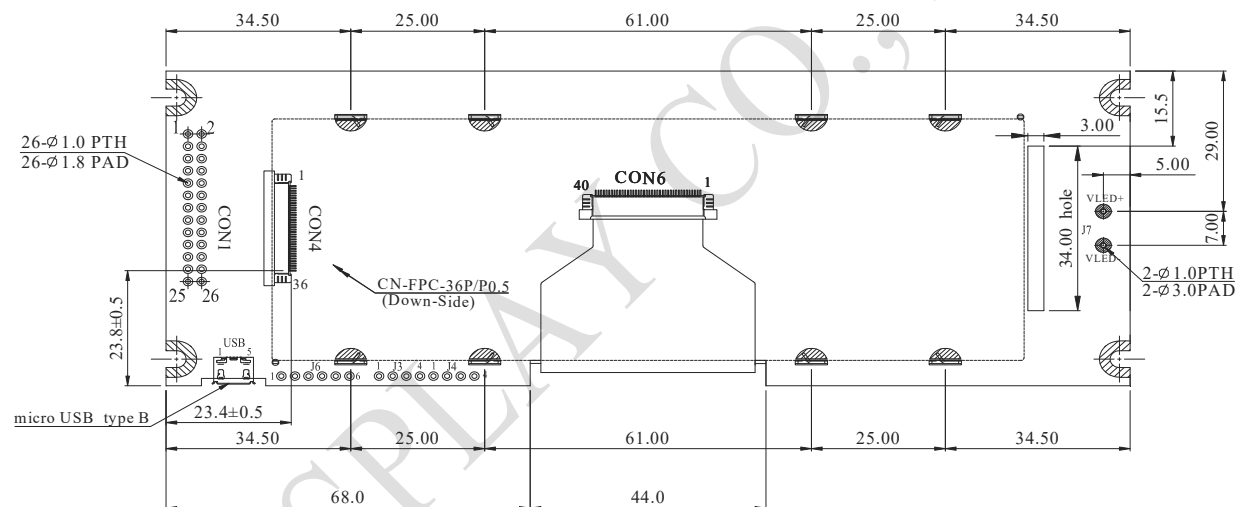
Module Label: 480xRGBx128

Other Labels: RGB, Pull tape

CON4		CON1	
PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	GND	1	FG
2	NC	2	GND
3	NC(PWM)	3	VDD5V
4	D/C	4	NC(PWM)
5	WR	5	WR
6	RD	6	RD
7	DB0	7	CS
8	DB1	8	D/C
9	DB2	9	NC
10	DB3	10	RESET
11	DB4	11	DB0
12	DB5	12	DB1
13	DB6	13	DB2
14	DB7	14	DB3
15	NC	15	DB4
16	NC	16	DB5
17	NC	17	DB6
18	NC	18	DB7
19	NC	19	NC
20	NC	20	NC
21	NC	21	VDD5V
22	NC	22	GND
23	NC	23	NC
24	NC	24	NC
25	CS	25	NC
26	RESET	26	GND

27	LR
28	UD
29	NC
30	NC
31	NC
32	NC
33	GND
34	GND
35	VDD5V
36	VDD5V

USB	
PIN NO.	SYMBOL
1	5V
2	D-
3	D+
4	NC
5	GND



The non-specified tolerance of dimension is $\pm 0.3\text{mm}$.