

# TFT DISPLAY SPECIFICATION



**WINSTAR Display Co.,Ltd.**  
**華凌光電股份有限公司**



## SPECIFICATION

**MODULE NO.: WF43WTYBEDST0#000**

### General Specifications

Item	Dimension	Unit
Size	4.3	inch
Dot Matrix	480 x RGBx272(TFT)	dots
Module dimension	123.5 (W) x 67.2 (H) x 19.72(D)	mm
Active area	95.04 x 53.856	mm
Pixel pitch	0.198(H) x 0.198(V)	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	80/80/80/80	
Aspect Ratio	16:9	
Backlight Type	LED, Normally White	
TFT Controller IC	BT816	
TFT Interface	SPI/QSPI	
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	°C
Storage Temperature	TST	-30	—	+80	°C

## Electrical Characteristics

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For VDD	VDD	—	3.1	3.3	3.5	V
Supply Current For VDD	IDD	VDD=3.3V	—	50	75	mA
Supply Voltage For VLED	VLED	—	4.5	5	5.5	V
Supply Current For VLED	ILED	VLED=+5V	—	200	300	mA

# Interface

LCM PIN Definition (CON1~CON4 are used for Arduino Uno Rev3)

## CON 1

Pin	Symbol	I/O	Function
1	INT	OD/O	Interrupt to host, open drain output(default) or push-pull output, active low
2	CS_SD	I	SD Chip Select
3	CS	I	SPI slave select input
4	MOSI	I	SPI Single mode: SPI MOSI input /SD Master-out,Slave-in SPI Dual/Quad mode: SPI data line 0
5	MISO	O	SPI Single mode: SPI MISO output /SD Master-in, Slave-out SPI Dual/Quad mode: SPI data line 1
6	SCK	I	SPI clock input / SD Serial Clock
7	GND	P	Ground
8	NC	-	No connection
9	NC	-	No connection
10	NC	-	No connection

## CON 2

Pin	Symbol	I/O	Function
1	NC	-	No connection
2	NC	-	No connection
3	NC	-	No connection
4	NC(CardDetct)	-	No connection(Optional SD Card Detect)
5	NC	-	No connection
6	NC	-	No connection
7	NC	-	No connection
8	PD_N	I	Chip power down mode control input, active low. Connect to MCU GPIO for power management or hardware reset function

**CON 3**

Pin	Symbol	I/O	Function
1	NC	-	No connection
2	NC	-	No connection
3	NC	-	No connection
4	VDD	P	3.3V power supply input
5	VLED	P	5V power supply input
6	GND	P	Ground
7	GND	P	Ground
8	NC	-	No connection

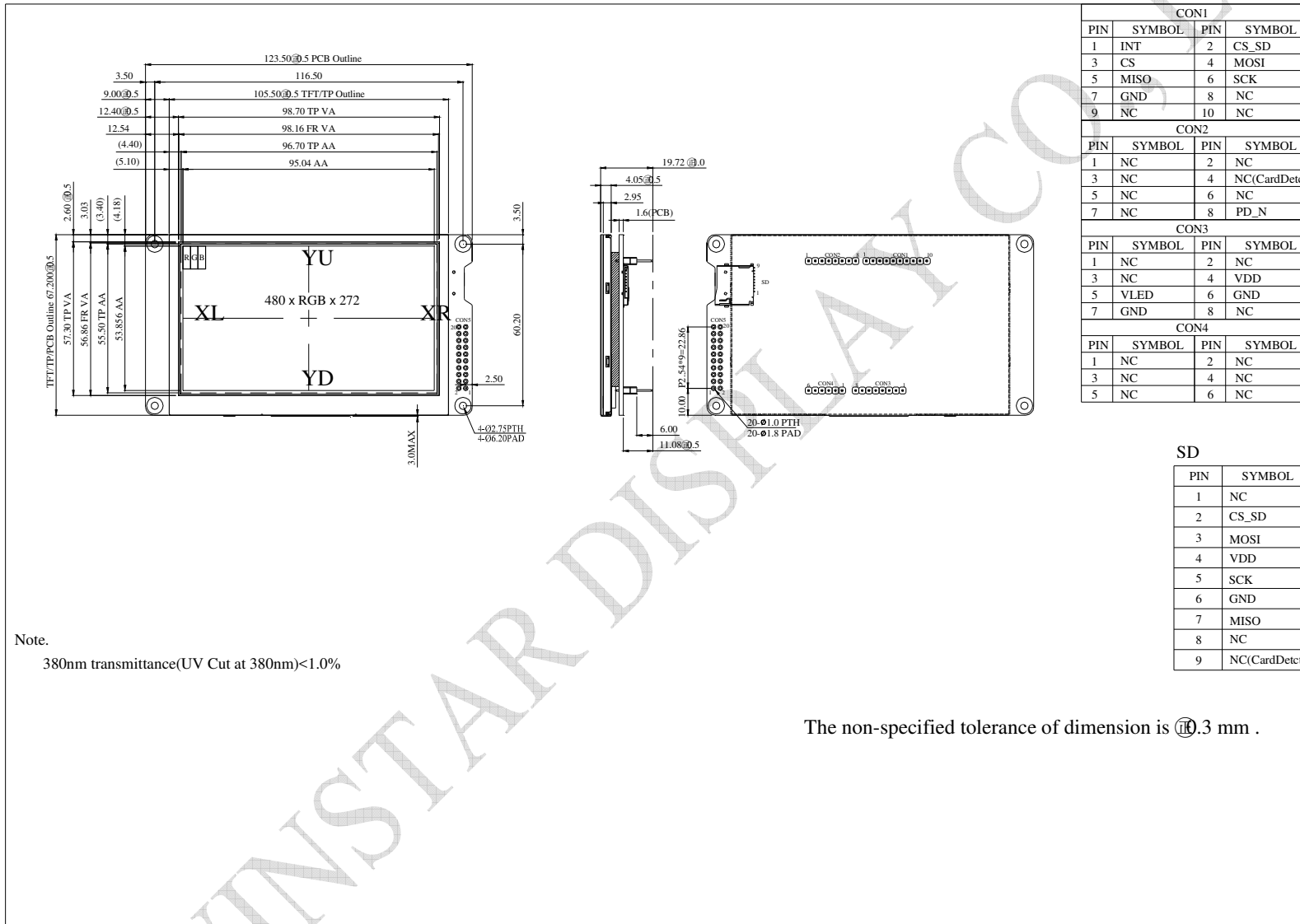
**CON 4**

Pin	Symbol	I/O	Function
1	NC	-	No connection
2	NC	-	No connection
3	NC	-	No connection
4	NC	-	No connection
5	NC	-	No connection
6	NC	-	No connection

**SD**

Pin	Symbol	I/O	Function
1	NC	-	No connection
2	CS_SD	I	SD Chip Select
3	MOSI	I	SPI Single mode: SPI MOSI input SPI Dual/Quad mode: SPI data line 0
4	VDD	P	3.3V power supply input
5	SCK	I	SPI clock input
6	GND	P	Ground
7	MISO	O	SPI Single mode: SPI MISO output SPI Dual/Quad mode: SPI data line 1
8	NC	-	No connection
9	NC(CardDetct)	-	No connection(SD Card Detect)

# Contour Drawing



Note.  
380nm transmittance(UV Cut at 380nm)<1.0%

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

CON1			
PIN	SYMBOL	PIN	SYMBOL
1	INT	2	CS_SD
3	CS	4	MOSI
5	MISO	6	SCK
7	GND	8	NC
9	NC	10	NC

CON2			
PIN	SYMBOL	PIN	SYMBOL
1	NC	2	NC
3	NC	4	NC(CardDetect)
5	NC	6	NC
7	NC	8	PD_N

CON3			
PIN	SYMBOL	PIN	SYMBOL
1	NC	2	NC
3	NC	4	VDD
5	VLED	6	GND
7	GND	8	NC

CON4			
PIN	SYMBOL	PIN	SYMBOL
1	NC	2	NC
3	NC	4	NC
5	NC	6	NC

SD	
PIN	SYMBOL
1	NC
2	CS_SD
3	MOSI
4	VDD
5	SCK
6	GND
7	MISO
8	NC
9	NC(CardDetect)