

# TFT DISPLAY SPECIFICATION



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



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### SPECIFICATION

**MODULE NO.: WF0840ASWAMLNB0#**

### General Specifications

Item	Dimension	Unit
Screen Diagonal	8.4	inch
Number of Pixels	1024 × 3(BGR) × 768	dots
Module dimension	199.5 × 149.0 × 14.3	mm
Active area	170.8032 (H) × 128.1024(V)	mm
Pixel pitch	0.1668 × 0.1668	mm
Display Mode	Normally Black , Transmissive	
Viewing Angle	80/80/80/80	
TFT Drive IC	ST5821AH+ST5084AA or Equivalent	
TFT Interface	LVDS	
Backlight Type	LED, Normally White	
Aspect Ratio	4:3	
Side screw torque	Typ:0.9 Max:1.3 (Unit,Kgf-cm)	
PCAP IC	EXC81W32 or equivalent	
PCAP Interface	USB (I2C available)	
PCAP FW Version	00_T1_M03	
PCAP Resolution	16384x16384	
Touch Panel	With PCAP	
Surface	Glare	

\*Color tone slight changed by temperature and driving voltage.

## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-30	—	+80	°C

## Electrical Characteristics

Operating conditions:

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For Logic	$V_{DD}$	3.0	3.3	3.6	V
Power Supply For Current	$V_{DD}=3.3V$	—	330	495	mA
Input Voltage	H level	$V_{IH}$	$0.7V_{DD}$	—	$V_{DD}$
	L Level	$V_{IL}$	GND	—	$0.3V_{DD}$
Supply CTP	USB_VDD 5V	4.4	5.0	5.5	V
	$I_{VDD\ 5V}$	—	45	68	mA
	VDDT	2.8	3.3	3.5	V
	$I_{VDDT}$	—	45	68	mA

## Backlight Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage of white LED backlight	VLED	21.6	24.0	27.2	V
Current for LED backlight	ILED	—	90*3	—	mA
LED life time	—	—	100,000	—	Hr

# Interface

## 1.LCM PIN Definition

Pin No.	Symbol	Function	Remark
1	VDD	Power supply	
2	VDD	Power supply	
3	GND	Ground	
4	GND	Ground	
5	Link0-	0- LVDS differential data input ( <b>D0N</b> )	
6	Link0+	0+ LVDS differential data input ( <b>D0P</b> )	
7	GND	Ground	
8	Link1-	1- LVDS differential data input ( <b>D1N</b> )	
9	Link1+	1+ LVDS differential data input ( <b>D1P</b> )	
10	GND	Ground	
11	Link2-	2- LVDS differential data input ( <b>D2N</b> )	
12	Link2+	2+ LVDS differential data input ( <b>D2P</b> )	
13	GND	Ground	
14	CLKIN-	- LVDS differential clock input ( <b>CLKN</b> )	
15	CLKIN+	+ LVDS differential clock input ( <b>CLKP</b> )	
16	GND	Ground	
17	Link3-	3- LVDS differential data input ( <b>D3N</b> )	
18	Link3+	3+ LVDS differential data input ( <b>D3P</b> )	
19	MODE	Bit 6/8:Low(6 Bit);High(8 Bit)	
20	SC	Scan direction selector (Low: Normal ;High: Reverse)	

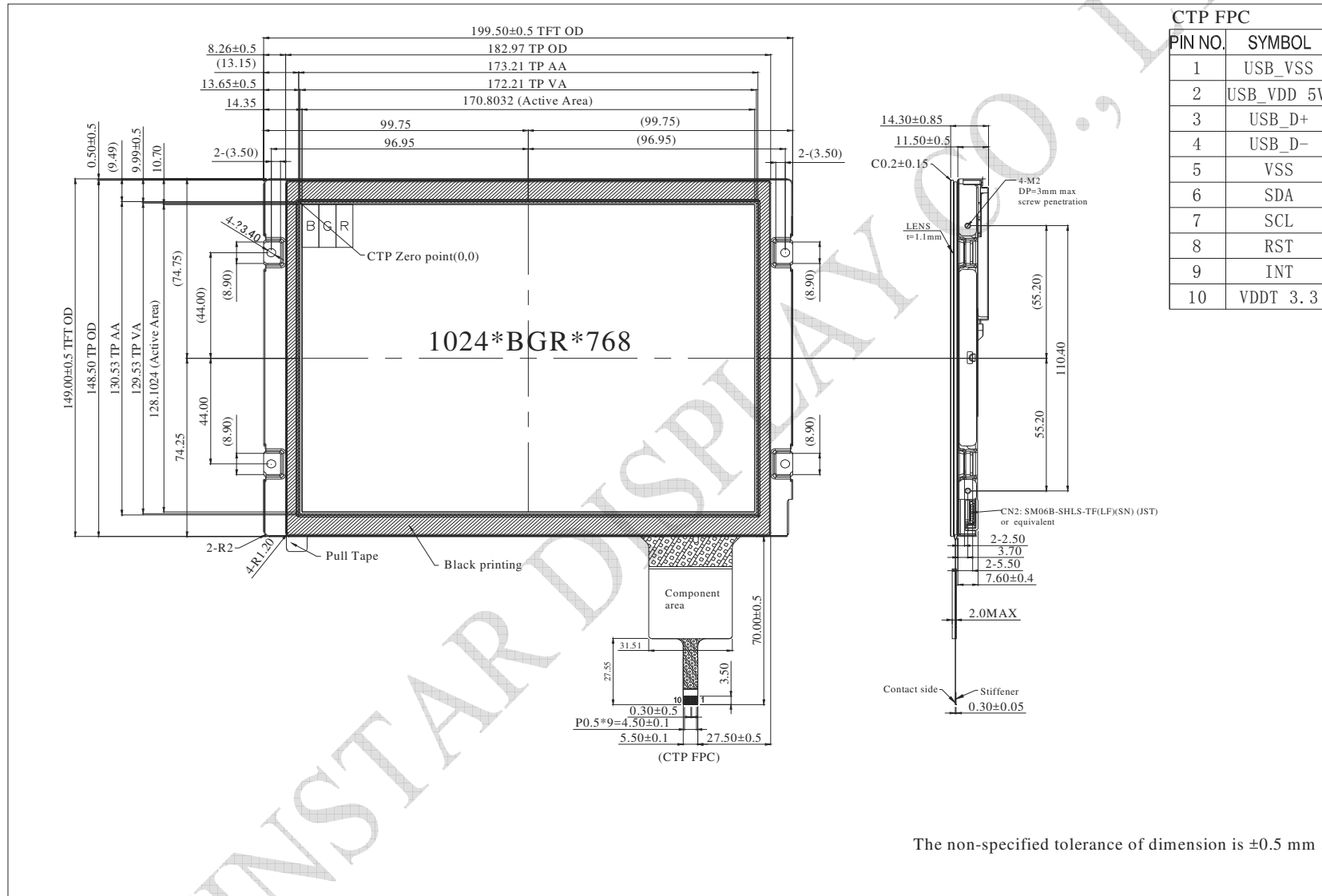
## 2. CN2

Pin No.	Symbol	Function	Remark
1	LED C3	LED_ Cathode 3	
2	LED A3	LED_ Anode 3	
3	LED C1	LED_ Cathode 1	
4	LED A1	LED_ Anode 1	
5	LED A2	LED_ Anode 2	
6	LED C2	LED_ Cathode 2	

### 3. PCAP PIN Definition

Pin	Symbol	Function	Remark
1	USB_VSS	System ground	
2	USB_VDD 5V	Power supply	
3	USB_D+	Data +	
4	USB_D-	Data -	
5	VSS	System ground	
6	SDA	I2C data input and output (Must be pulled high.)	
7	SCL	I2C clock input (Must be pulled high.)	
8	RST	External Reset, Low is active	
9	INT	External interrupt to the host	
10	VDDT 3.3	Power supply	

# Contour Drawing



The non-specified tolerance of dimension is ±0.5 mm .

