

TFT DISPLAY SPECIFICATION



RAYSTAR

RAYSTAR Optronics, Inc.
曜凌光電股份有限公司



曜凌光電股份有限公司 Raystar Optronics, Inc.

T: +886-4-2565-0761 | F: +886-4-2565-0760

salescontact@raystar-optronics.com | www.raystar-optronics.com

RFF50AF-1YW-DBG

General Specifications

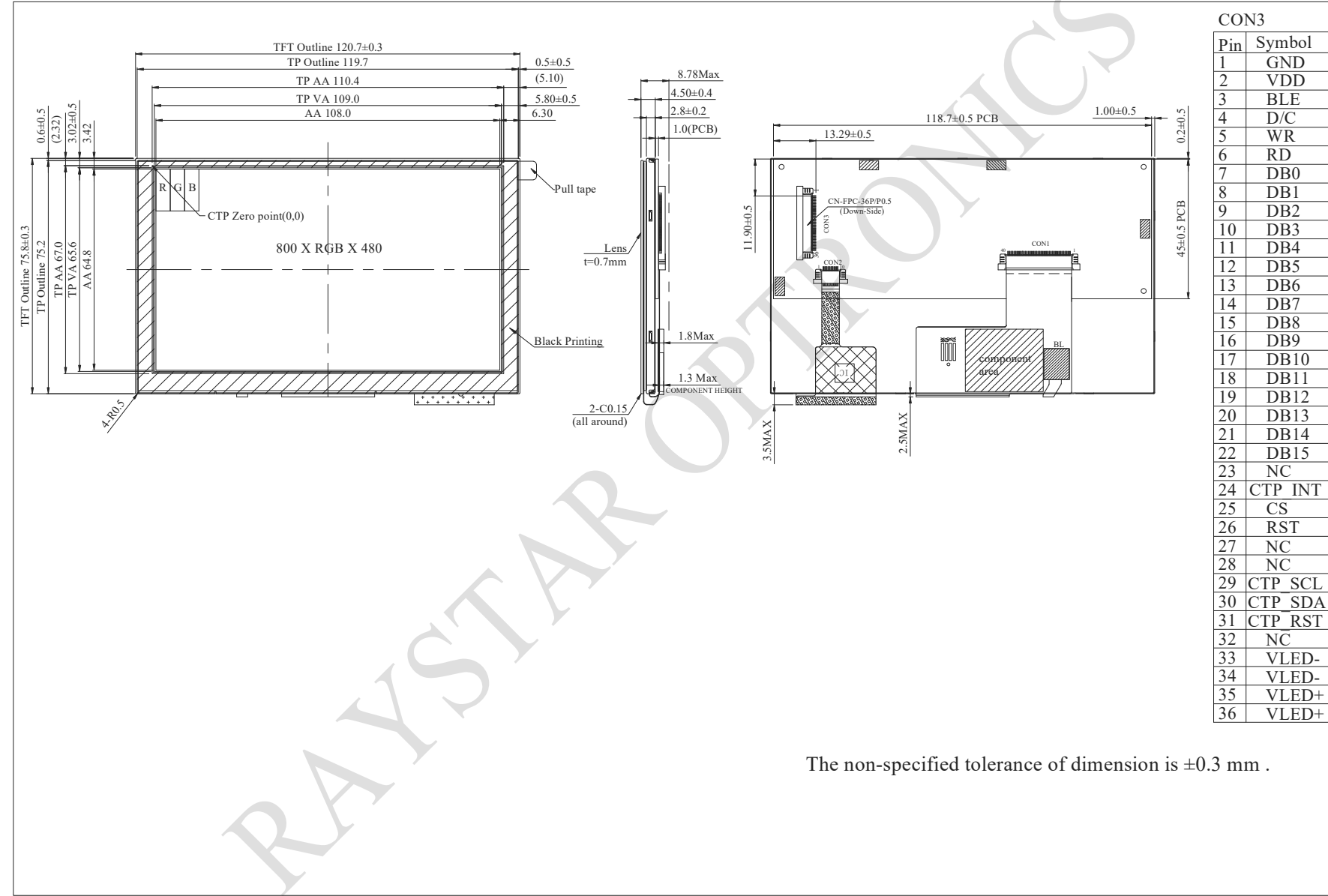
- Size: 5.0 inch
- Dot Matrix: 800 × 3(RGB) × 480 dots
- Module dimension: 120.7 x 75.8 x 8.78 (Max) mm
- Active area: 108.0 x 64.8 mm
- Pixel pitch: 0.135 x 0.135 mm
- LCD type: TFT, Normally Black, Transmissive
- View Direction: 80/80/80/80 (IPS)
- Aspect Ratio: 5:3
- Backlight Type: LED, Normally White
- Controller IC: SSD1963
- Interface: Digital 8080 family MPU 8bit/16bit
- PCAP IC: ILI2130
- PCAP Interface: I2C
- PCAP FW Version: 0x07.0x00.0x00.0x00.0xA1.0x25.0x50.0x00
- PCAP Resolution: 16384*16384
- Touch Panel: Projected Capacitive Touch Panel, PCAP
- Surface: Glare

Interface

LCM PIN Definition(CON3)

Pin	Symbol	Function
1	GND	System round pin of the IC. Connect to system ground.
2	VDD	Power Supply : +3.3V
3	BL_E	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	NC	No connection
24	CTP_INT	External interrupt to the host
25	CS	Chip select
26	RST	Hardware reset (RESET)
27	NC	No connection
28	NC	No connection
29	CTP_SCL	I2C clock input
30	CTP_SDA	I2C data input and output
31	CTP_RST	External Reset, Low is active
32	NC	No connection
33	VLED-	VLED- for B/L LED inverter (GND)
34	VLED-	VLED- for B/L LED inverter (GND)
35	VLED+	VLED+ for B/L LED inverter
36	VLED+	VLED+ for B/L LED inverter

Contour Drawing



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

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: (CON3.Pin1=GND, Pin2=VDD)

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	3.1	3.3	3.6	V
Supply Current For LCM	IDD	—	76	114	mA

Backlight driving conditions (CON3.Pin33,34=VLED-, Pin35,36=VLED+)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operation Current For LED Driver	VLED=5V	200	—	300	mA
Supply Voltage For LED Driver	VLED+	—	5	—	V
LED Life Time	—	—	50,000	-	Hr