



RAYSTAR

RAYSTAR Optronics, Inc.
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RFF700B8-AWH-DNB

SPECIFICATION

General Specifications

- Size: 7.0 inch
- Dot Matrix: 800 x RGB x 480(TFT) dots
- Module dimension: 165.8 (W) x 106.61 (H) x 12.95(D) mm
- Active area: 152.40 x 91.44 mm
- Pixel pitch: 0.1905 x 0.1905 mm
- LCD type: TFT, Normally Black, Transmissive
- View Direction: 80/80/80/80
- TFT Interface: 18-bit RGB
- TFT Driver IC: HX8249-A + HX8678-C or Equivalent
- Aspect Ratio: 15:9
- Backlight Type: LED, Normally White
- PCAP IC: ILI2511 or equivalent
- PCAP Interface: USB (I2C available)
- PCAP FW Version: 6.0.0.0.0.0.1
- Touch Screen: Projected Capacitive Touch Screen
- Surface: Glare

*Color tone slight changed by temperature and driving voltage.

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	GND	Power ground
2	GND	Power ground
3	NC	No connection
4	VCC	Power voltage
5	VCC	Power voltage
6	VCC	Power voltage
7	VCC	Power voltage
8	NC	No connection
9	DE	Data enable signal for TTL mode.
10	GND	Power ground
11	GND	Power ground
12	GND	Power ground
13	B5	Blue data
14	B4	Blue data
15	B3	Blue data
16	GND	Power ground
17	B2	Blue data
18	B1	Blue data
19	B0	Blue data(LSB)
20	GND	Power ground
21	G5	Green data
22	G4	Green data
23	G3	Green data
24	GND	Power ground
25	G2	Green data
26	G1	Green data
27	G0	Green data(LSB)
28	GND	Power ground
29	R5	Red data
30	R4	Red data
31	R3	Red data
32	GND	Power ground

33	R2	Red data
34	R1	Red data
35	R0	Red data (LSB)
36	GND	Power ground
37	GND	Power ground
38	DCLK	Sample clock
39	GND	Power ground
40	GND	Power ground

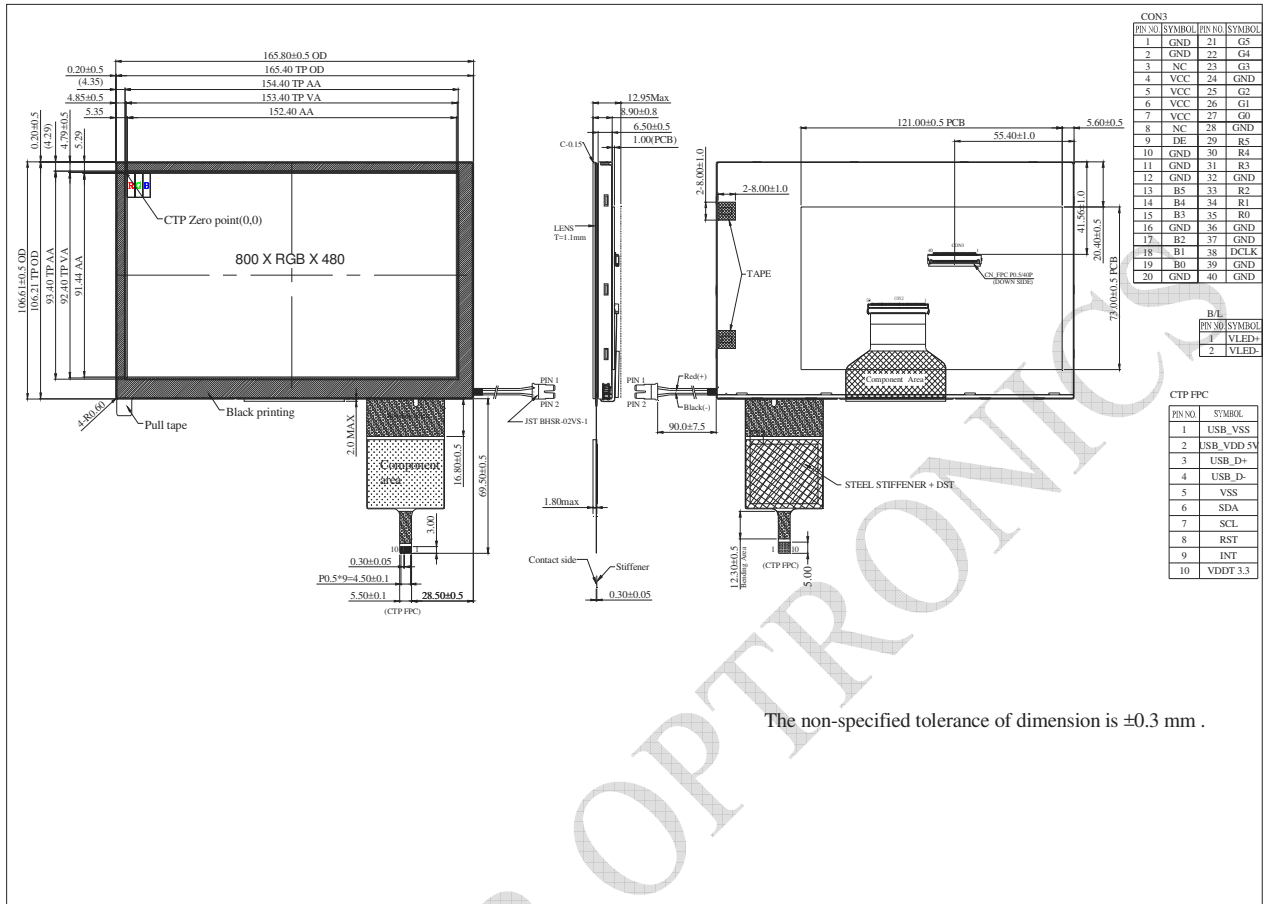
2. Backlight Driving Part

Pin No.	Symbol	Description
1	VLED+	Red, LED_ Anode
2	VLED-	White, LED_ Cathode

3. PCAP PIN Definition

Pin	Symbol	Function
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
7	SCL	I2C clock input
8	RST	External Reset, Low is active
9	INT	External interrupt to the host
10	VDDT 3.3	Power supply

Contour Drawing



CON3			
PN NO	SYMBOL	PN NO	SYMBOL
1	GND	21	G5
2	GND	22	G4
3	NC	23	G3
4	VCC	24	GND
5	VCC	25	G2
6	VCC	26	G1
7	VCC	27	G0
8	NC	28	GND
9	DE	29	R5
10	GND	30	R4
11	GND	31	R3
12	GND	32	GND
13	B5	33	R2
14	B4	34	R1
15	B3	35	R0
16	GND	36	GND
17	B2	37	GND
18	B1	38	DCLK
19	B0	39	GND
20	GND	40	GND

B/L		
PN NO	SYMBOL	
1	VLED+	
2	VLED-	

CTP FPC		
PN NO	SYMBOL	
1	USB_VSS	
2	USB_VDD-SV	
3	USB_D+	
4	USB_D-	
5	VSS	
6	SDA	
7	SCL	
8	RST	
9	INT	
10	VDDT 3.3	

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

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-40	—	+85	°C

Electrical Characteristics

1. Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	2.7	3.3	3.6	V
Current of power supply	Icc	—	22	33	mA
Supply CTP	USB_VDD 5V	4.4	5.0	5.5	V
	I _{VDD 5V}	—	83.6	126	mA

2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current	—	—	450	—	mA
LED voltage	VLED+	8.1	9.3	10.2	V
LED Life Time	—	40000	—	—	Hr