



**RAYSTAR**

**曜凌光電股份有限公司**

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## **RFF50XB-1IW-DHG**

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### **SPECIFICATION**

#### **General Specifications**

- Size: 5.0 inch
- Dot Matrix: 800 × 3(RGB) × 480 dots
- Module dimension: 120.7 × 75.8 × 23.2 (Max) mm
- Active area: 108.0 × 64.8 mm
- Dot pitch: 0.045 × 0.135 mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: 16:9
- Backlight Type: LED, Normally White
- Controller IC: TFP401
- Interface: HDMI
- With /Without TP: With PCAP
- PCAP FW Version: A
- Surface: Glare

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

## Interface

### 1. LCM PIN Definition(CON5)

| Pin | Symbol | Function                |
|-----|--------|-------------------------|
| 1   | 3.3V   | Raspberry Pi:Power 3.3V |
| 2   | 5V     | Raspberry Pi:Power 5V   |
| 3   | GPIO02 | Raspberry Pi:GPIO02     |
| 4   | 5V     | Raspberry Pi:Power 5V   |
| 5   | GPIO03 | Raspberry Pi:GPIO03     |
| 6   | GND    | Raspberry Pi:GND        |
| 7   | GPIO04 | Raspberry Pi:GPIO04     |
| 8   | GPIO14 | Raspberry Pi:GPIO14     |
| 9   | GND    | Raspberry Pi:GND        |
| 10  | GPIO15 | Raspberry Pi:GPIO15     |
| 11  | GPIO17 | Raspberry Pi:GPIO17     |
| 12  | GPIO18 | Raspberry Pi:GPIO18     |
| 13  | GPIO27 | Raspberry Pi:GPIO27     |
| 14  | GND    | Raspberry Pi:GND        |
| 15  | GPIO22 | Raspberry Pi:GPIO22     |
| 16  | GPIO23 | Raspberry Pi:GPIO23     |
| 17  | 3.3V   | Raspberry Pi:3.3V       |
| 18  | GPIO24 | Raspberry Pi:GPIO24     |
| 19  | GPIO10 | Raspberry Pi:GPIO10     |
| 20  | GND    | Raspberry Pi:GND        |
| 21  | GPIO09 | Raspberry Pi:GPIO09     |
| 22  | GPIO25 | Raspberry Pi:GPIO25     |
| 23  | GPIO11 | Raspberry Pi:GPIO11     |
| 24  | GPIO08 | Raspberry Pi:GPIO08     |
| 25  | GND    | Raspberry Pi:GND        |
| 26  | GPIO07 | Raspberry Pi:GPIO07     |
| 27  | ID_SD  | Raspberry Pi:ID_SD      |
| 28  | ID_SC  | Raspberry Pi:ID_SC      |
| 29  | GPIO05 | Raspberry Pi:GPIO05     |
| 30  | GND    | Raspberry Pi:GND        |
| 31  | GPIO06 | Raspberry Pi:GPIO06     |
| 32  | GPIO12 | Raspberry Pi:GPIO12     |
| 33  | GPIO13 | Raspberry Pi:GPIO13     |
| 34  | GND    | Raspberry Pi:GND        |
| 35  | GPIO19 | Raspberry Pi:GPIO19     |
| 36  | GPIO16 | Raspberry Pi:GPIO16     |
| 37  | GPIO26 | Raspberry Pi:GPIO26     |
| 38  | GPIO20 | Raspberry Pi:GPIO20     |
| 39  | GND    | Raspberry Pi:GND        |
| 40  | GPIO21 | Raspberry Pi:GPIO21     |

**2. HDMI**

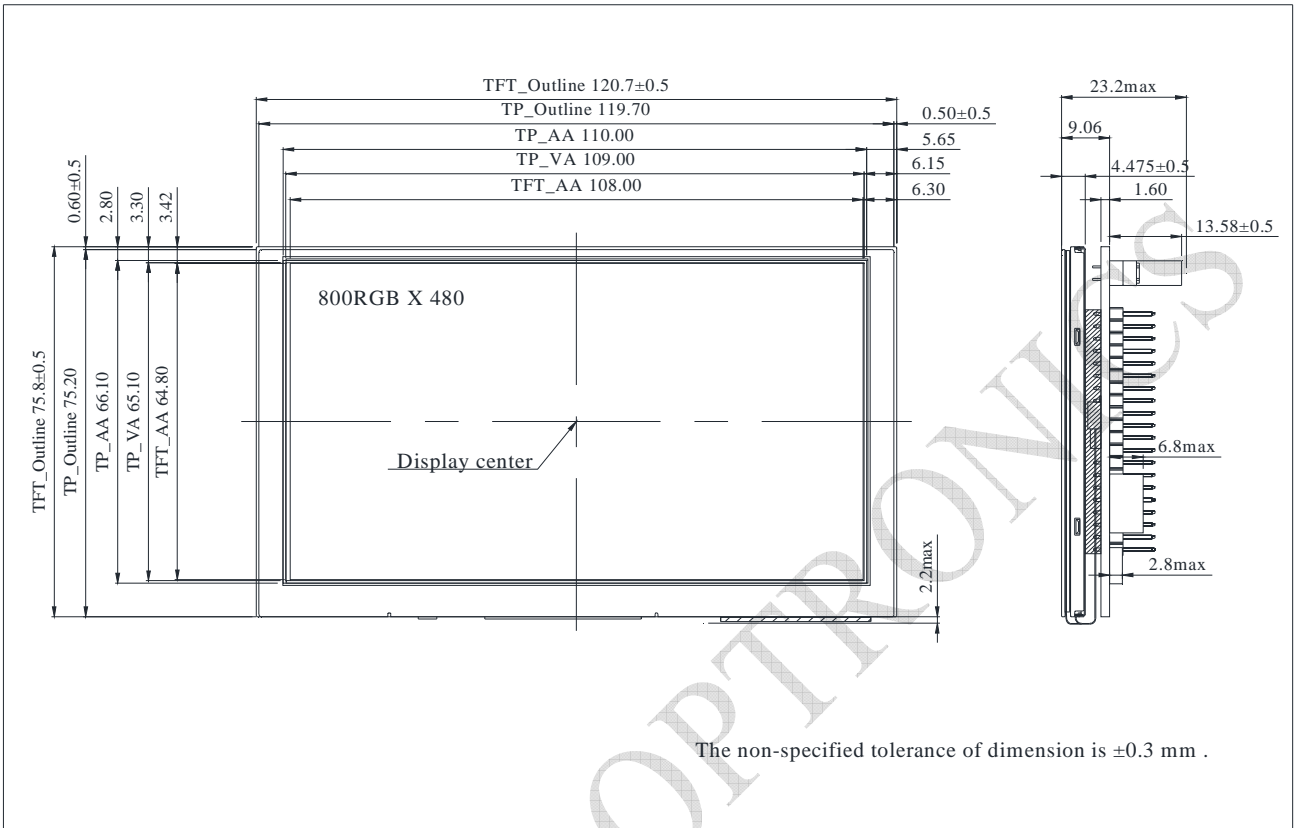
| Pin No. | Symbol | I/O | Function                        |
|---------|--------|-----|---------------------------------|
| 1       | Rx2+   | I   | +LVDS Differential Data Input   |
| 2       | GND    | P   | Ground                          |
| 3       | Rx2-   | I   | -LVDS Differential Data Input   |
| 4       | Rx1+   | I   | +LVDS Differential Data Input   |
| 5       | GND    | P   | Ground                          |
| 6       | Rx1-   | I   | -LVDS Differential Data Input   |
| 7       | Rx0+   | I   | +LVDS Differential Data Input   |
| 8       | GND    | P   | Ground                          |
| 9       | Rx0-   | I   | -LVDS Differential Data Input   |
| 10      | RxC+   | I   | +LVDS Differential Clock Input  |
| 11      | GND    | P   | Ground                          |
| 12      | RxC-   | I   | -LVDS Differential Clock Input  |
| 13-14   | NC     | -   | No connection                   |
| 15      | SCL    | I/O | DDC(Data Display Channel) Clock |
| 16      | SDA    | I/O | DDC(Data Display Channel) Data  |
| 17      | GND    | P   | Ground                          |
| 18      | 5V     | P   | Power Supply                    |
| 19      | Detect | I/O | Hot plug detect                 |

I: input, O: output, P: Power

**3. PCAP USB PIN Definition(CON3)**

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

# Contour Drawing



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