

# TFT DISPLAY SPECIFICATION



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



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### SPECIFICATION

**MODULE NO.: WF39DTLFSDHG0#**

### General Specifications

| Item                           | Dimension                               | Unit |
|--------------------------------|-----------------------------------------|------|
| Size                           | 3.9                                     | inch |
| Dot Matrix                     | 480 x 128 x RGB                         | dots |
| Module dimension               | 125.0 x 66.5 x 13.95 (Max)              | mm   |
| Active area                    | 95.04 x 25.34                           | mm   |
| Pixel pitch                    | 0.198(H) x 0.198(V) mm                  | mm   |
| LCD type                       | TFT, Normally White, Transmissive       |      |
| View Direction                 | 6 o'clock                               |      |
| Gray Scale Inversion Direction | 12 o'clock                              |      |
| Aspect Ratio                   | Bar Type                                |      |
| Backlight Type                 | LED, Normally White                     |      |
| Controller IC                  | TFP401                                  |      |
| Interface                      | HDMI (only for DVI)                     |      |
| PCAP IC                        | GT911                                   |      |
| PCAP FW Version                | 77                                      |      |
| PCAP Interface                 | USB                                     |      |
| PCAP Resolution                | 480*128                                 |      |
| Touch Panel                    | Projected Capacitive Touch Panel (PCAP) |      |
| Surface                        | 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

### 1. Operating conditions:

| Item                   | Symbol | Condition | Min    | Typ | Max | Unit |
|------------------------|--------|-----------|--------|-----|-----|------|
| Supply Voltage For LCM | VDD    | —         | —      | 5   | —   | V    |
| Supply Current For LCM | IDD    | —         | —      | 300 | 450 | mA   |
| LED life time          | —      | —         | 50,000 | —   | —   | Hr   |

# Interface

## 1. LCM PIN Definition DVI

| Pin No. | Symbol | I/O | Function                                                                        |
|---------|--------|-----|---------------------------------------------------------------------------------|
| 1       | Rx2+   | I   | Channel-2 positive receiver input; low-voltage signal differential- input pair. |
| 2       | GND    | P   | Ground                                                                          |
| 3       | Rx2-   | I   | Channel-2 negative receiver input; low-voltage signal differential- input pair. |
| 4       | Rx1+   | I   | Channel-1 positive receiver input; low-voltage signal differential- input pair. |
| 5       | GND    | P   | Ground                                                                          |
| 6       | Rx1-   | I   | Channel-1 negative receiver input; low-voltage signal differential- input pair. |
| 7       | Rx0+   | I   | Channel-0 positive receiver input; low-voltage signal differential- input pair. |
| 8       | GND    | P   | Ground                                                                          |
| 9       | Rx0-   | I   | Channel-0 negative receiver input; low-voltage signal differential- input pair. |
| 10      | RxC+   | I   | Clock positive receiver input; low-voltage signal differential- input pair.     |
| 11      | GND    | P   | Ground                                                                          |
| 12      | RxC-   | I   | Clock negative receiver input; low-voltage signal differential- input pair.     |
| 13-16   | NC     | -   | No connection                                                                   |
| 17      | GND    | P   | Ground                                                                          |
| 18      | 5V     | -   | Power Supply                                                                    |
| 19      | Detect | -   | Hot plug detect                                                                 |

I: input, O: output, P: Power

Note 1: Only supports Raspberry Pi series

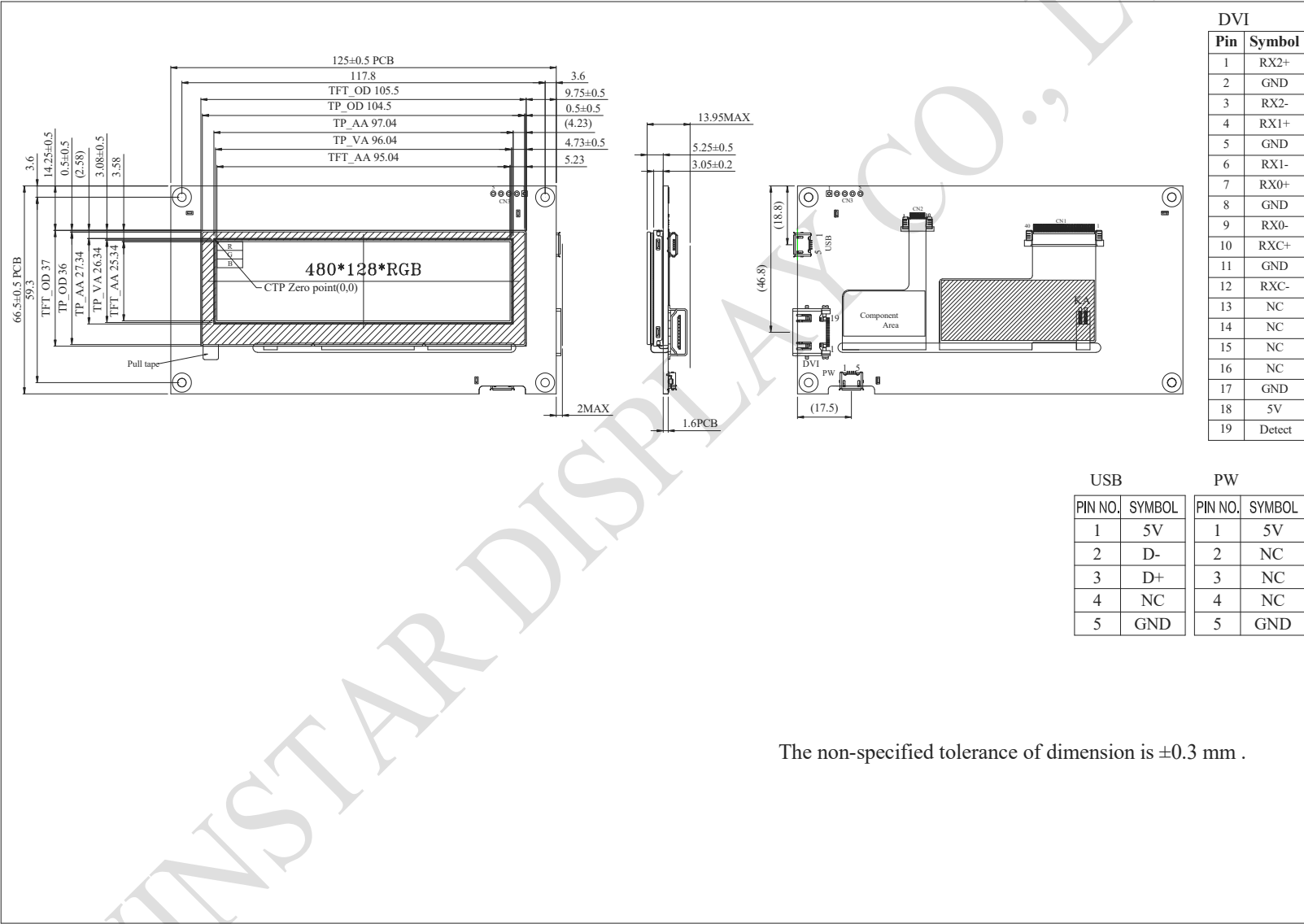
## 2. PW (Micro USB type B)

| Pin No. | Symbol | I/O | Function      |
|---------|--------|-----|---------------|
| 1       | 5V     | P   | Power Supply  |
| 2       | NC     | -   | No connection |
| 3       | NC     | -   | No connection |
| 4       | NC     | -   | No connection |
| 5       | GND    | P   | Ground        |

## 3. CTP USB (Micro USB type B)

| Pin No. | Symbol | I/O | Function      |
|---------|--------|-----|---------------|
| 1       | 5V     | P   | Power Supply  |
| 2       | D-     | -   | Data line -   |
| 3       | D+     | -   | Data line +   |
| 4       | NC     | -   | No connection |
| 5       | GND    | P   | Ground        |

# Contour Drawing



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