

TFT DISPLAY SPECIFICATION



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SPECIFICATION

MODULE NO.: WF43WSYFEDHNV#

General Specifications

| Item | Dimension | Unit |
|------------------|-----------------------------------|------|
| Size | 4.3 | inch |
| Dot Matrix | 480 x RGB x 272(TFT) | dots |
| Module dimension | 105.5(W) x 84.2(H) x 22.13(D) | mm |
| Active area | 95.04 x 53.856 | mm |
| Pixel pitch | 0.198 x 0.198 | mm |
| LCD type | TFT, Normally Black, Transmissive | |
| Viewing Angle | 80/80/80/80 | |
| Aspect Ratio | 16:9 | |
| Controller IC | TFP401 | |
| Interface | HDMI(only for DVI) | |
| Backlight Type | LED, Normally White | |
| With /Without TP | Without Touch Panel | |
| 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

Operating conditions:

| Item | Symbol | Condition | Min | Typ | Max | Unit |
|------------------------|--------|-----------|-----|--------|------|------|
| Supply Voltage For LCM | VDD | — | — | 5.0 | — | V |
| Supply Current For LCM | IDD | — | — | 950 | 1400 | mA |
| LED life time | — | — | — | 50,000 | — | Hr |

Interface

1. LCM PIN Definition(CON4)

| Pin | Symbol | Function | Remark |
|-----|--------------------|--|--------|
| 1 | NC | No connector | |
| 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 (PWM_BL) | Raspberry Pi:GPIO18 (PWM adjusts the backlight brightness) | Note2 |
| 13 | GPIO27 | Raspberry Pi:GPIO27 | |
| 14 | GND | Raspberry Pi:GND | |
| 15 | GPIO22 | Raspberry Pi:GPIO22 | |
| 16 | GPIO23 | Raspberry Pi:GPIO23 | |
| 17 | NC | No connector | |
| 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. LCM PIN Definition(CON5)

| Pin | Symbol | Function | Remark |
|-----|--------------------|--|--------|
| 1 | 3.3V | TFT Module Power limit can only output 3.3V,100mA | Note1 |
| 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 (PWM_BL) | Raspberry Pi:GPIO18 (PWM adjusts the backlight brightness) | Note2 |
| 13 | GPIO27 | Raspberry Pi:GPIO27 | |
| 14 | GND | Raspberry Pi:GND | |
| 15 | GPIO22 | Raspberry Pi:GPIO22 | |
| 16 | GPIO23 | Raspberry Pi:GPIO23 | |
| 17 | 3.3V | TFT Module Power limit can only output 3.3V,100mA | Note1 |
| 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 | |

Note1: The 3.3V supply current is limited; please pay special attention to use

Note2: PWM dimming frequency is about 100Hz

3. HDMI (only for DVI)

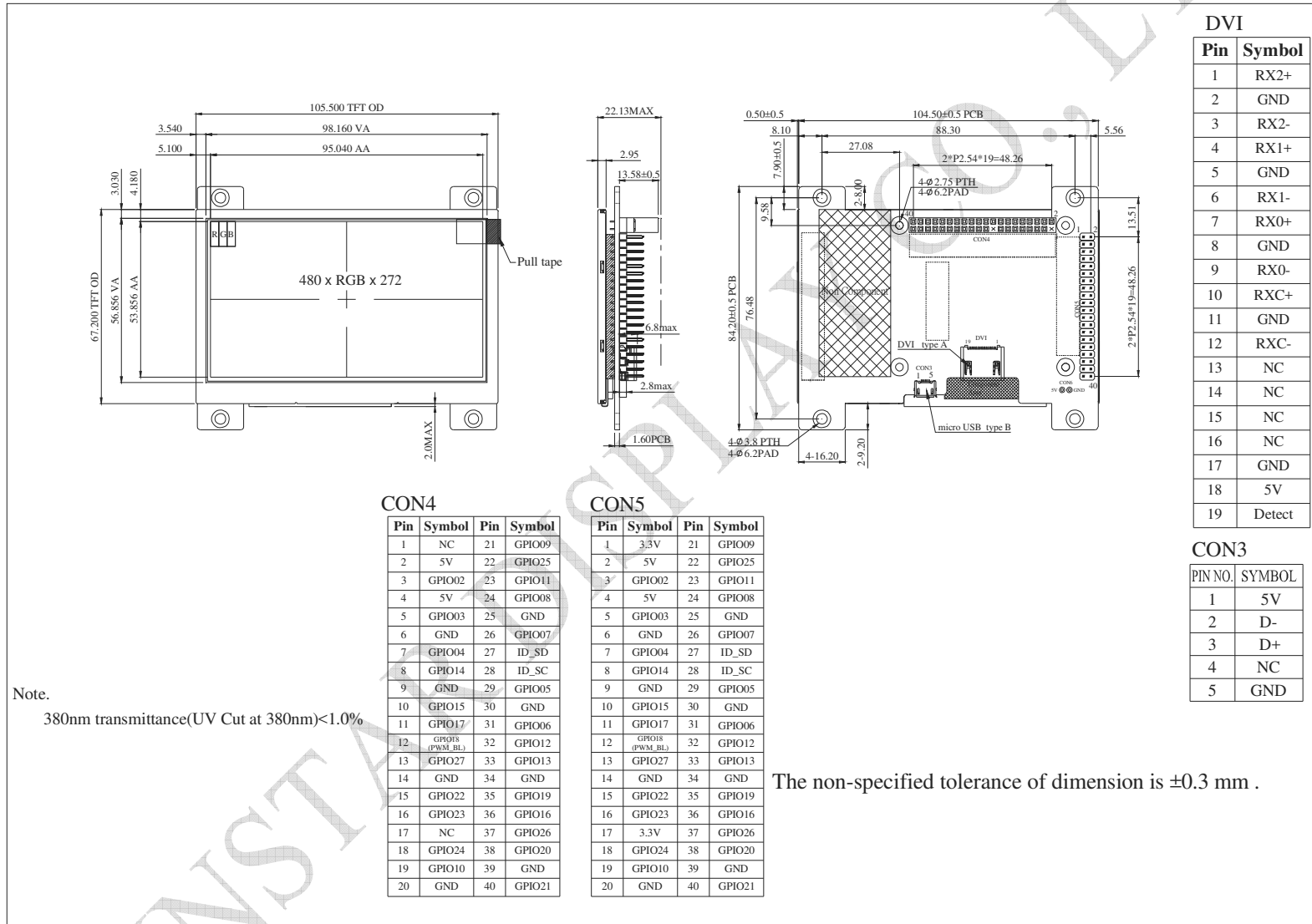
| Pin No. | Symbol | I/O | Function | Remark |
|---------|--------|-----|--------------------------------|--------|
| 1 | Rx2+ | I | +LVDS Differential Data Input | |
| 2 | GND | P | Ground | |
| 3 | Rx2- | I | -LVDS Differential Data Input | |
| 4 | Rx1+ | I | +LVDS Differential Data Input | |
| 5 | 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 | |
| 13-16 | NC | - | No connection | |
| 17 | GND | P | Ground | |
| 18 | 5V | P | Power Supply | |
| 19 | Detect | I/O | Hot plug detect | |

I: input, O: output, P: Power

4. USB PIN Definition (CON3)

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

Contour Drawing



DVI

| Pin | Symbol |
|-----|--------|
| 1 | RX2+ |
| 2 | GND |
| 3 | RX2- |
| 4 | RX1+ |
| 5 | GND |
| 6 | RX1- |
| 7 | RX0+ |
| 8 | GND |
| 9 | RX0- |
| 10 | RXC+ |
| 11 | GND |
| 12 | RXC- |
| 13 | NC |
| 14 | NC |
| 15 | NC |
| 16 | NC |
| 17 | GND |
| 18 | 5V |
| 19 | Detect |

CON3

| PIN NO. | SYMBOL |
|---------|--------|
| 1 | 5V |
| 2 | D- |
| 3 | D+ |
| 4 | NC |
| 5 | GND |

CON4

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

CON5

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

Note:
380nm transmittance(UV Cut at 380nm)<1.0%

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