



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF39QTIBSDBN0#

General Specifications

| Item | Dimension | Unit |
|--------------------------------|------------------------------------|------|
| Size | 3.9 | inch |
| Dot Matrix | 480 x 128 x RGB (TFT) | dots |
| Module dimension | 122.0 x 44.0 x 7.5(max) | mm |
| Active area | 95.04 x 25.34 | mm |
| Dot pitch | 0.066(W) x 0.198(H) | mm |
| LCD type | TFT, Normally White, Transmissive | |
| View Direction | 12o'clock | |
| Gray Scale Inversion Direction | 6 o'clock | |
| Aspect Ratio | Bar Type | |
| TFT Driver IC | SSD1963 | |
| TFT Interface | Digital 8080 family MPU 8bit/16bit | |
| Backlight Type | LED, Normally White | |
| Color arrangement | RGB-STRIPE | |
| Touch Panel | Without Touch Panel | |
| Surface | Anti-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: (CON3.Pin1=GND, Pin2=VDD)

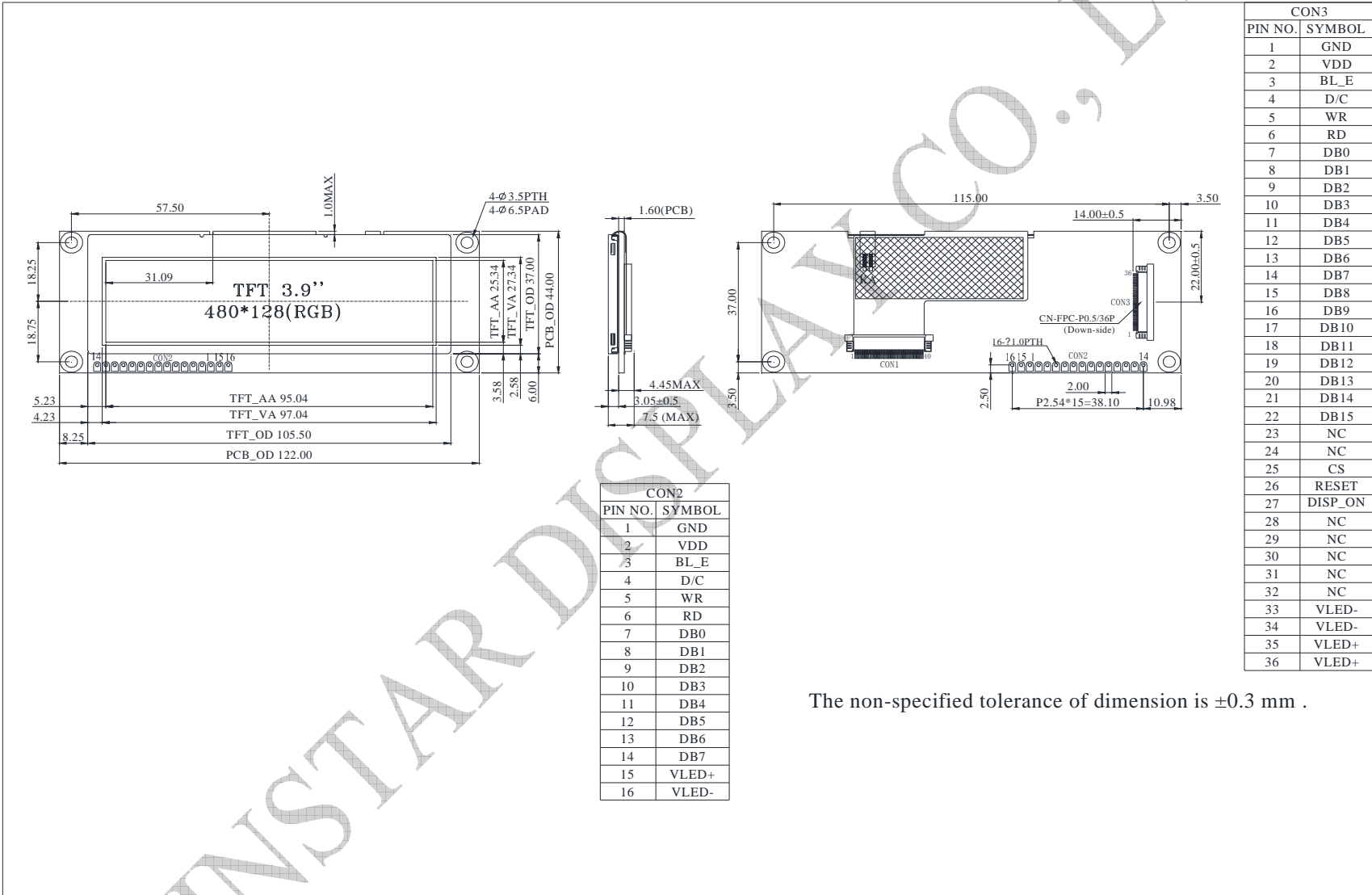
| Item | Symbol | Min | Typ | Max | Unit |
|------------------------|--------|-----|-----|-----|------|
| Supply Voltage For LCM | VDD | 3.0 | 3.1 | 3.3 | V |
| Supply Current For LCM | IDD | — | 200 | — | mA |

Interface

LCM PIN Definition

| 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 connect |
| 24 | NC | No connect |
| 25 | CS | Chip select |
| 26 | RESET | Hardware reset |
| 27 | DISP_ON | Display on/off control |
| 28~32 | NC | No connect |
| 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 (+5V) |
| 36 | VLED+ | VLED+ for B/L LED inverter (+5V) |

Contour Drawing



| CON2 | |
|---------|--------|
| PIN NO. | SYMBOL |
| 1 | GND |
| 2 | VDD |
| 3 | BL_E |
| 4 | D/C |
| 5 | WR |
| 6 | RD |
| 7 | DB0 |
| 8 | DB1 |
| 9 | DB2 |
| 10 | DB3 |
| 11 | DB4 |
| 12 | DB5 |
| 13 | DB6 |
| 14 | DB7 |
| 15 | VLED+ |
| 16 | VLED- |

| CON3 | |
|---------|---------|
| PIN NO. | SYMBOL |
| 1 | GND |
| 2 | VDD |
| 3 | BL_E |
| 4 | D/C |
| 5 | WR |
| 6 | RD |
| 7 | DB0 |
| 8 | DB1 |
| 9 | DB2 |
| 10 | DB3 |
| 11 | DB4 |
| 12 | DB5 |
| 13 | DB6 |
| 14 | DB7 |
| 15 | DB8 |
| 16 | DB9 |
| 17 | DB10 |
| 18 | DB11 |
| 19 | DB12 |
| 20 | DB13 |
| 21 | DB14 |
| 22 | DB15 |
| 23 | NC |
| 24 | NC |
| 25 | CS |
| 26 | RESET |
| 27 | DISP_ON |
| 28 | NC |
| 29 | NC |
| 30 | NC |
| 31 | NC |
| 32 | NC |
| 33 | VLED- |
| 34 | VLED- |
| 35 | VLED+ |
| 36 | VLED+ |

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