

# TFT DISPLAY SPECIFICATION



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



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### SPECIFICATION

**MODULE NO.: WF70D2TWAGDNN0#**

### General Specifications

| Item             | Dimension                          | Unit |
|------------------|------------------------------------|------|
| Size             | 7.0                                | inch |
| Dot Matrix       | 800 x RGB x 480(TFT)               | dots |
| Module dimension | 165.0(W) x 104.6(H) x 6.8 (MAX)(D) | mm   |
| Active area      | 152.4 x 91.44                      | mm   |
| Pixel pitch      | 0.1905 x 0.1905                    | mm   |
| LCD type         | TFT, Normally Black, Transmissive  |      |
| View Angle       | 85/85/85/85                        |      |
| TFT IC           | RM53052+RM57452 or Equivalent      |      |
| Aspect Ratio     | 16:9                               |      |
| Backlight Type   | LED, Normally White                |      |
| TFT Interface    | 18-bit RGB                         |      |
| 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    | -30 | —   | +80 | °C   |
| Storage Temperature   | TST    | -30 | —   | +80 | °C   |

# Electrical Characteristics

## 1. Operating conditions:

| Item                   | Symbol | Condition     | Min | Typ | Max | Unit |
|------------------------|--------|---------------|-----|-----|-----|------|
| Supply Voltage For LCM | Vcc    | —             | 3.0 | 3.3 | 3.6 | V    |
| Supply Current For LCM | Icc    | Black Pattern | —   | 85  | 130 | mA   |

## 2. LED driving conditions

| Parameter     | Symbol | Min.   | Typ. | Max. | Unit |
|---------------|--------|--------|------|------|------|
| LED current   | —      | —      | 180  | —    | mA   |
| LED voltage   | VLED+  | 8.4    | 9.0  | 9.6  | V    |
| LED Life Time | —      | 50,000 | —    | —    | Hr   |

# Interface

## 1. LCM PIN Definition

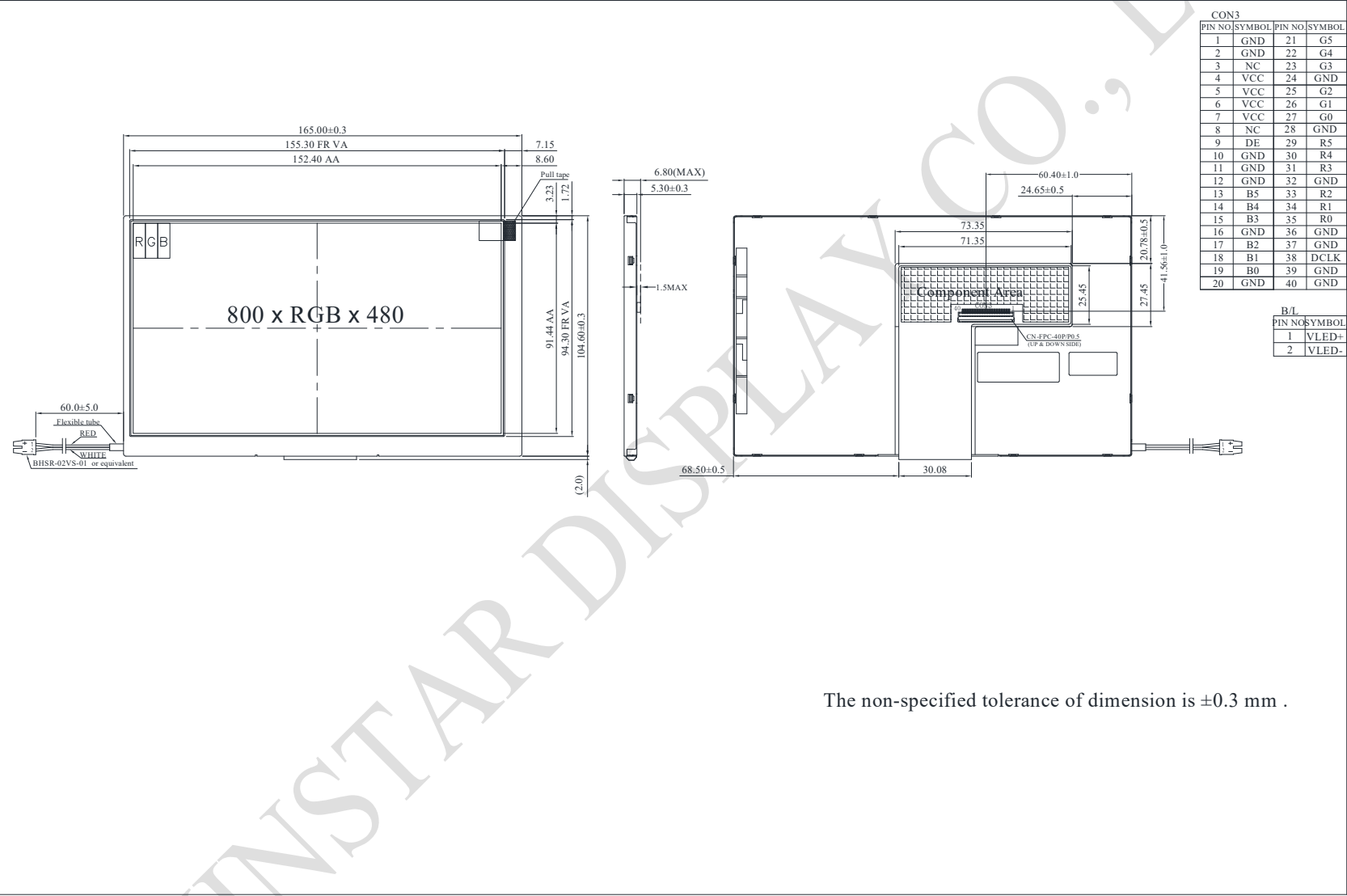
| Pin | Symbol | Function                         |
|-----|--------|----------------------------------|
| 1   | GND    | Power Ground                     |
| 2   | GND    | Power Ground                     |
| 3   | NC     | Not Connect                      |
| 4   | Vcc    | Power Supply for Digital Circuit |
| 5   | Vcc    | Power Supply for Digital Circuit |
| 6   | Vcc    | Power Supply for Digital Circuit |
| 7   | Vcc    | Power Supply for Digital Circuit |
| 8   | NC     | Not Connect                      |
| 9   | DE     | Data Enable                      |
| 10  | GND    | Power Ground                     |
| 11  | GND    | Power Ground                     |
| 12  | GND    | Power Ground                     |
| 13  | B5     | Blue Data 5 (MSB)                |
| 14  | B4     | Blue Data 4                      |
| 15  | B3     | Blue Data 3                      |
| 16  | GND    | Power Ground                     |
| 17  | B2     | Blue Data 2                      |
| 18  | B1     | Blue Data 1                      |
| 19  | B0     | Blue Data 0 (LSB)                |
| 20  | GND    | Power Ground                     |
| 21  | G5     | Green Data 5 (MSB)               |
| 22  | G4     | Green Data 4                     |
| 23  | G3     | Green Data 3                     |
| 24  | GND    | Power Ground                     |
| 25  | G2     | Green Data 2                     |
| 26  | G1     | Green Data 1                     |
| 27  | G0     | Green Data 0(LSB)                |
| 28  | GND    | Power Ground                     |
| 29  | R5     | Red Data 5 (MSB)                 |
| 30  | R4     | Red Data 4                       |

|    |      |                                                      |
|----|------|------------------------------------------------------|
| 31 | R3   | Red Data 3                                           |
| 32 | GND  | Power Ground                                         |
| 33 | R2   | Red Data 2                                           |
| 34 | R1   | Red Data 1                                           |
| 35 | R0   | Red Data 0(LSB)                                      |
| 36 | GND  | Power Ground                                         |
| 37 | GND  | Power Ground                                         |
| 38 | DCLK | Clock Signals ; Latch Data at the Falling Edge (CLK) |
| 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 |

# Contour Drawing



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