# TFT DISPLAY SPECIFICATION




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# SPECIFICATION

**CUSTOMER :** _____

**MODULE NO.: WF101-1280800LM#0SP0-FC**

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| APPROVED BY:<br>( FOR CUSTOMER USE ONLY ) | PCB VERSION: DATA: |
|---|---|
| | |

| SALES BY | APPROVED BY | CHECKED BY | PREPARED BY |
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| ISSUED DATE: | 2026/06/16 | | |

# General Specifications

| Item | Dimension | Unit |
|---|---|---|
| Screen Diagonal | 10.1 | inch |
| Number of Pixels | 1280 x 3(R GB) x 800 | dots |
| Module dimension | 230.56 x 155.01 x 8.85 | mm |
| Active area | 216.96 (H) x 135.6(V) | mm |
| Pixel pitch | 0.1695 × 0.1695 | mm |
| Display Mode | Normally Black , Transmissive | |
| Viewing Angle | 80/80/80/80 | |
| Pixel Arrangement | R.G.B. Vertical Stripe | |
| TFT Drive IC | EK79202D or Equivalent | |
| Backlight Type | LED,Normally White | |
| Aspect Ratio | 16:10 | |
| TFT Interface | 4-Lanes MIPI | |
| With /Without TP | Without TP | |
| Surface | Anti-Glare | |

*Color tone slight changed by temperature and driving voltage.

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# Absolute Maximum Ratings

| Item | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| Operating Temperature | TOP | -20 | — | +70 | ℃ |
| Storage Temperature | TST | -30 | — | +80 | ℃ |

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above

1. Temp. ≦ 60℃, 90% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 90% RH at 60℃

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# Electrical Characteristics

**Typical Operation Conditions** (Note 1)

| Item | Symbol | Values | | | Unit | Remark |
|---|---|---|---|---|---|---|
| | | Min. | Typ. | MAX. | | |
| Power voltage | VCC | 3.0 | 3.3 | 3.5 | V | |
| | VGH | 17.5 | 18.0 | 18.5 | V | Note 1 |
| | VGL | -11.5 | -10.5 | -10.0 | V | Note 2 |
| | VSP | — | 5.5 | — | V | Note 3 |
| | VSN | — | -5.5 | — | V | Note 3 |

Note:
1. VGH is TFT Gate operating Voltage.
2. VGL is TFT Gate operating Voltage.
3. VSP / VSN does not require an external power supply voltage, it is provided by IC on the PCB

**Current Consumption**

| Item | Symbol | Values | | | Unit | Remark |
|---|---|---|---|---|---|---|
| | | Min. | Typ. | MAX. | | |
| Current for Driver | IGH | — | 7.7 | — | mA | VGH =18V |
| | IGL | — | 7.7 | — | mA | VGL = -10.5V |
| | IVCC | — | 79 | 120 | mA | - |

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# Optical Characteristics

| Item | | Symbol | Condition. | Min | Typ. | Max. | Unit | Remark |
|---|---|---|---|---|---|---|---|---|
| Response time | | Tr+ Tf | θ=0°、Φ=0° | - | 25 | 35 | .ms | Note 3 |
| Contrast ratio | | CR | At optimized viewing angle | 800 | 1000 | - | - | Note 4 |
| Color Chromaticity | White | Wx | θ=0°、Φ=0 | 0.272 | 0.322 | 0.372 | - | Note 2,6,7 |
| | | Wy | | 0.294 | 0.344 | 0.394 | - | |
| Viewing angle | Hor. | ΘR | CR≧10 | 70 | 80 | - | Deg. | Note 1 |
| | | ΘL | | 70 | 80 | - | | |
| | Ver. | ΦT | | 70 | 80 | - | | |
| | | ΦB | | 70 | 80 | - | | |
| Brightness | | - | - | 1000 | 1100 | - | cd/m² | Center of display |
| Uniformity | | (U) | - | 70 | - | - | % | Note 5 |

Ta=25±2℃

Note 1: Definition of viewing angle range

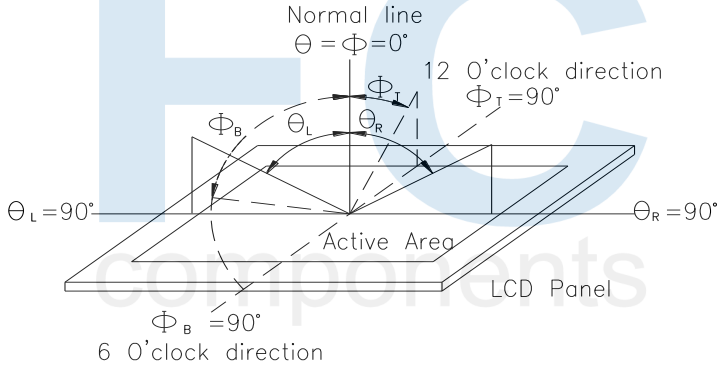



Fig. 1. Definition of viewing angle

Note 2: Test equipment setup:

After stabilizing and leaving the panel alone at a driven temperature for 10 minutes, the measurement should be executed. Measurement should be executed in a stable, windless, and dark room. Optical specifications are measured by Topcon BM-7 or BM-5 luminance meter 1.0° field of view at a distance of 50cm and normal direction.

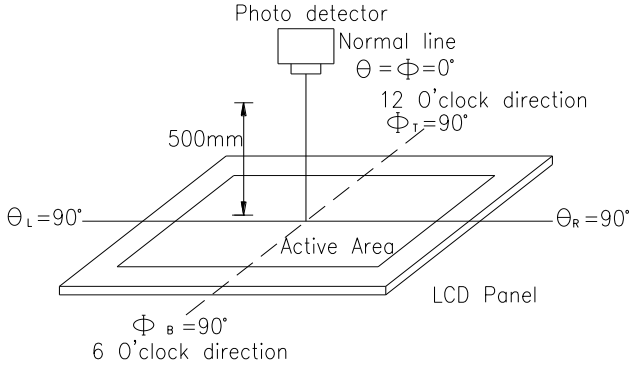



Fig. 2. Optical measurement system setup

# Interface

**Interface Connector**

| Pin No. | Symbol | I/O | Function | Remark |
|---|---|---|---|---|
| 1 | NC | - | No connection | |
| 2 | VCC | P | Power Supply | |
| 3 | VCC | P | Power Supply | |
| 4 | NC | - | No connection | |
| 5 | NC | - | No connection | |
| 6 | NC | - | No connection | |
| 7 | GND | P | Ground | |
| 8 | D0N | I | MIPI data Input. | |
| 9 | D0P | I | | |
| 10 | GND | P | Ground | |
| 11 | D1N | I | MIPI data Input. | |
| 12 | D1P | I | | |
| 13 | GND | P | Ground | |
| 14 | D2N | I | MIPI data Input. | |
| 15 | D2P | I | | |
| 16 | GND | P | Ground | |
| 17 | CLKN | I | MIPI clock Input. | |
| 18 | CLKP | I | | |
| 19 | GND | P | Ground | |
| 20 | D3N | I | MIPI data Input. | |
| 21 | D3P | I | | |
| 22 | GND | P | Ground | |
| 23 | NC | - | No connection | |
| 24 | NC | - | No connection | |
| 25 | GND | P | Ground | |
| 26 | NC | - | No connection | |
| 27 | NC | - | No connection | |
| 28 | NC | - | No connection | |
| 29 | NC | - | No connection | |
| 30 | GND | P | Ground | |
| 31 | NC | - | No connection | |

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| | | | | |
|---|---|---|---|---|
| 32 | NC | - | No connection | |
| 33 | NC | - | No connection | |
| 34 | NC | - | No connection | |
| 35 | VGL | P | Connect to stabilizing capacitor between VSSA and VGL. | |
| 36 | NC | - | No connection | |
| 37 | NC | - | No connection | |
| 38 | VGH | P | Connect to stabilizing capacitor between VSSA and VGH. | |
| 39 | NC | - | No connection | |
| 40 | NC | - | No connection | |

I: input, O: output, P: Power

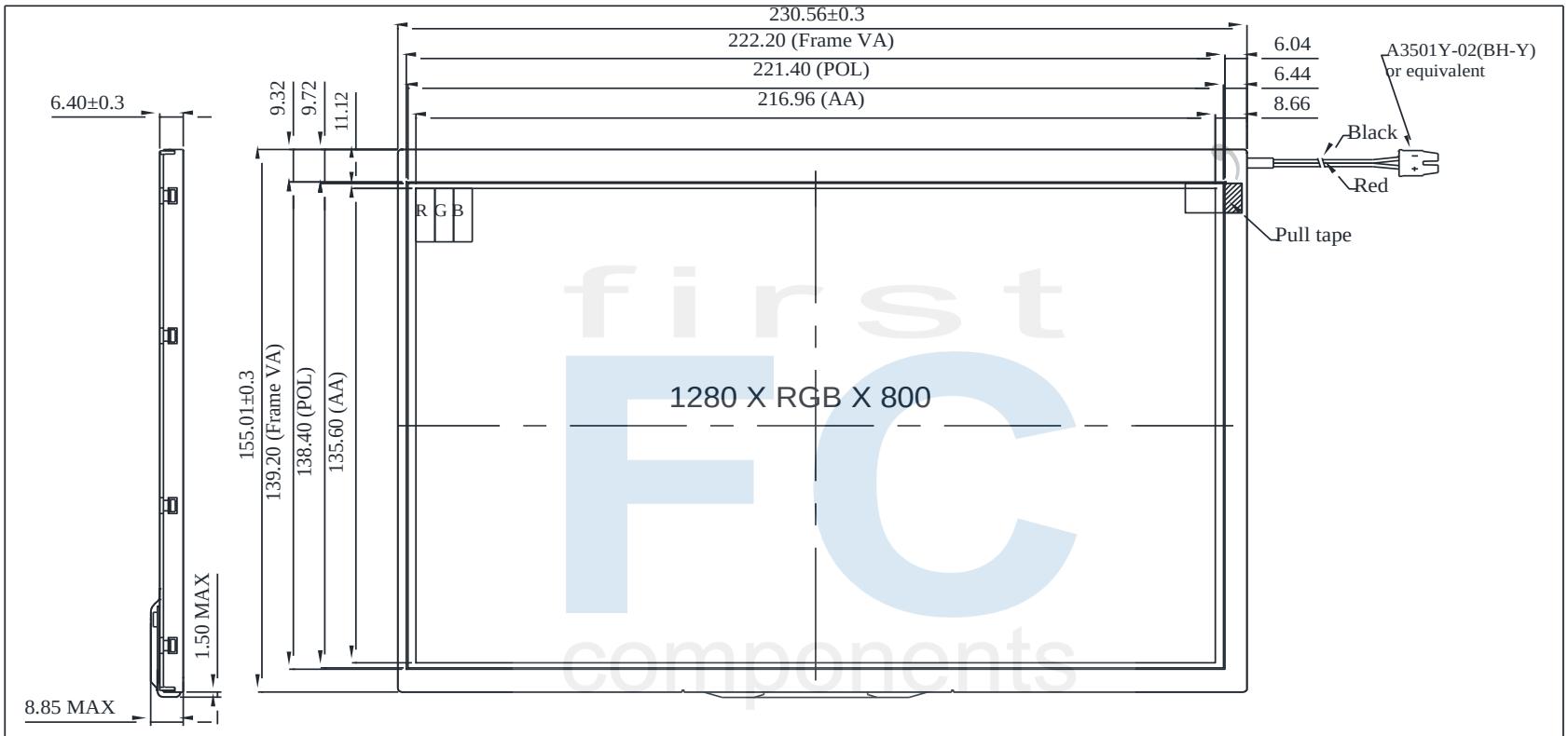
**Backlight Driving Part**

| Pin No. | Symbol | Function |
|---|---|---|
| 1 | VLED+ | Red, LED_ Anode |
| 2 | VLED- | Black, LED_ Cathode |

Note: The backlight interface connector is a model A3501Y-02(BH-Y) or equivalent

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# Contour Drawing



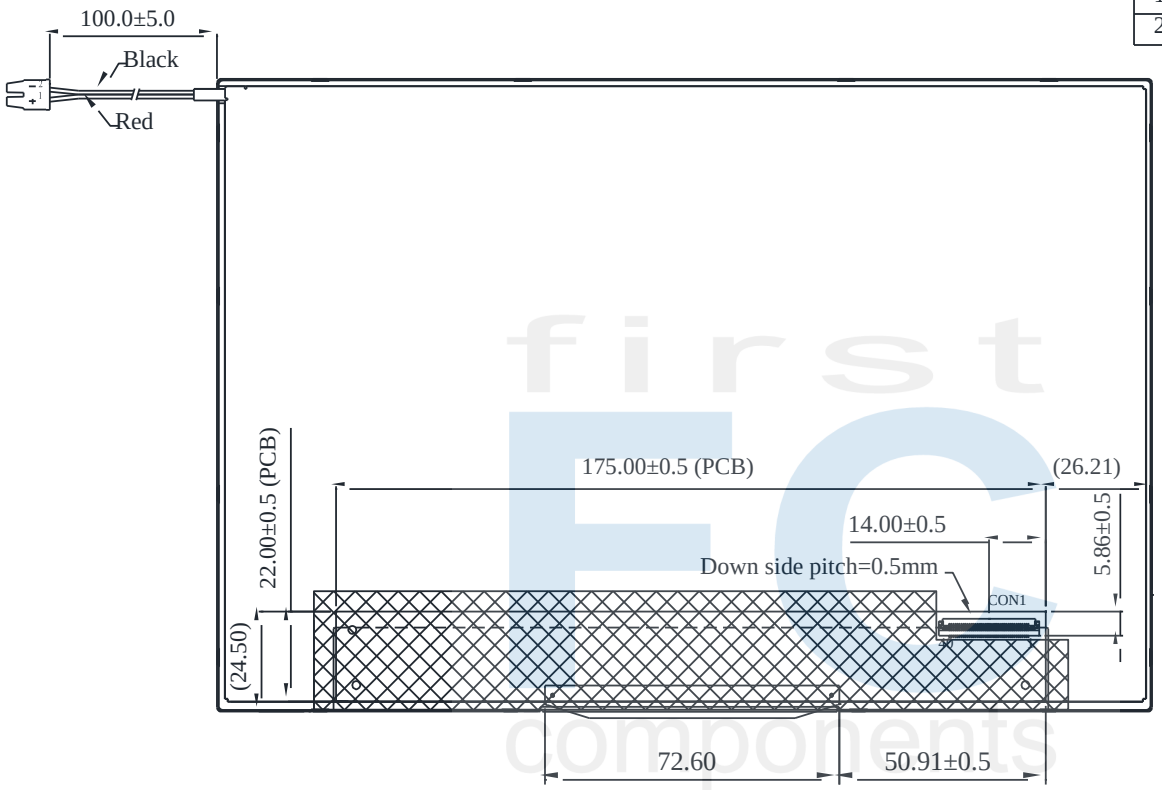

The non-specified tolerance of dimension is ±0.3 mm .

B/L

| PIN NO | SYMBOL |
|---|---|
| 1 | VLED+ |
| 2 | VLED- |

CON1

| PIN NO | SYMBOL | PIN NO | SYMBOL |
|---|---|---|---|
| 1 | NC | 21 | D3P |
| 2 | VCC | 22 | GND |
| 3 | VCC | 23 | NC |
| 4 | NC | 24 | NC |
| 5 | NC | 25 | GND |
| 6 | NC | 26 | NC |
| 7 | GND | 27 | NC |
| 8 | D0N | 28 | NC |
| 9 | D0P | 29 | NC |
| 10 | GND | 30 | GND |
| 11 | D1N | 31 | NC |
| 12 | D1P | 32 | NC |
| 13 | GND | 33 | NC |
| 14 | D2N | 34 | NC |
| 15 | D2P | 35 | VGL |
| 16 | GND | 36 | NC |
| 17 | CLKN | 37 | NC |
| 18 | CLKP | 38 | VGH |
| 19 | GND | 39 | NC |
| 20 | D3N | 40 | NC |




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

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