



RAYSTAR

曜凌光電股份有限公司

Web: www.raystar-optronics.com E-mail: sales@raystar-optronics.com

RFF500B-AIW-DNS

SPECIFICATION

General Specifications

- Size: 5.0 inch
- Dot Matrix: 800× 3(RGB) × 480 dots
- Module dimension: 120.7(W) ×75.8(H) ×4.3mm
- Active area: 108(W) ×64.8 (H) mm
- Dot pitch: 0.135(W) ×0.135(H) mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: 16:9
- Backlight Type: LED ,Normally White
- With /Without TP: With RTP
- Surface: Anti-Glare

*Color tone slight changed by temperature and driving voltage.

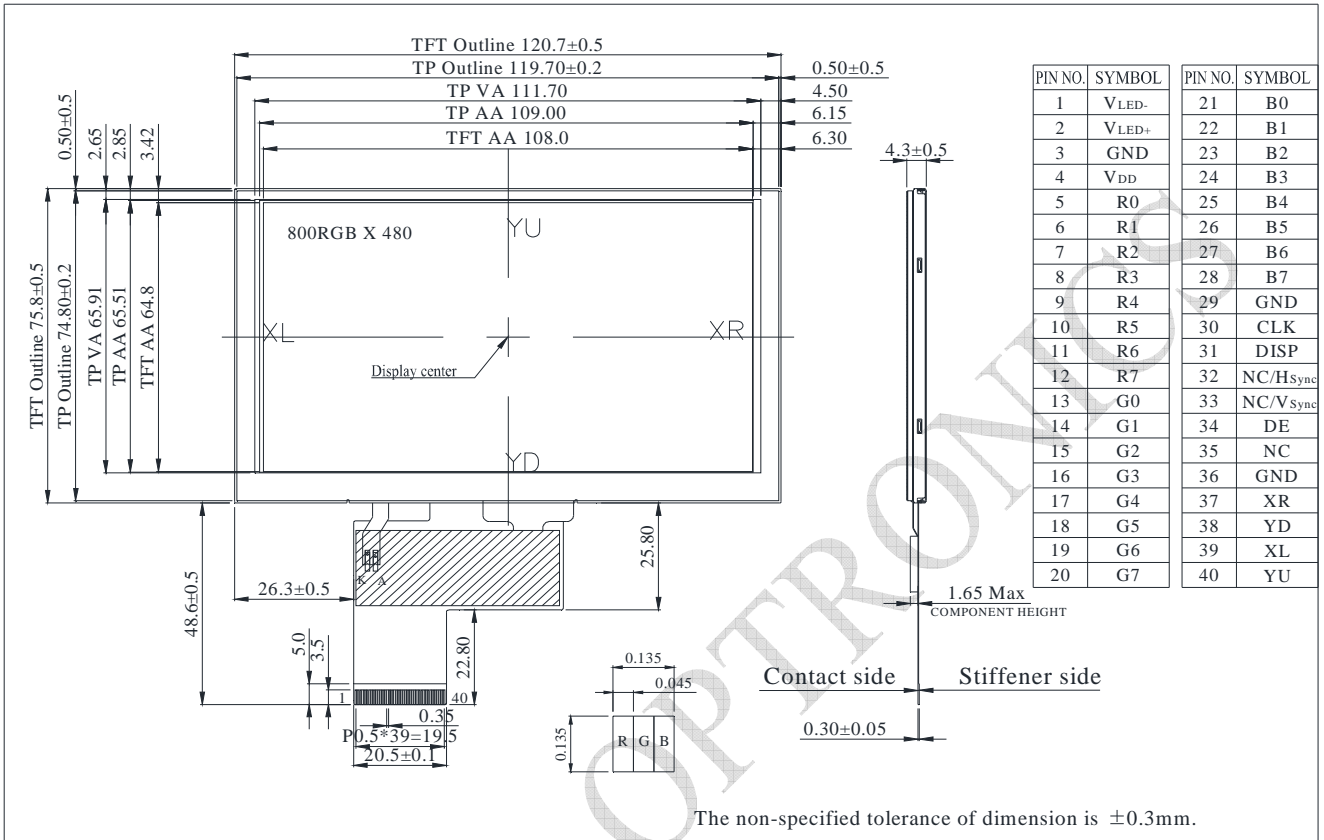
Interface

LCM PIN Definition

FPC Connector is used for the module electronics interface. The recommended model is FH19SC-40S-0.5SH manufactured by HIROSE.

| Pin | Symbol | Function |
|-----|--------|-----------------------------------|
| 1 | VLED- | Power for LED backlight (Cathode) |
| 2 | VLED+ | Power for LED backlight (Anode) |
| 3 | GND | Power Ground |
| 4 | VDD | Power voltage |
| 5 | R0 | Red data (LSB) |
| 6 | R1 | Red data |
| 7 | R2 | Red data |
| 8 | R3 | Red data |
| 9 | R4 | Red data |
| 10 | R5 | Red data |
| 11 | R6 | Red data |
| 12 | R7 | Red data(MSB) |
| 13 | G0 | Green data(LSB) |
| 14 | G1 | Green data |
| 15 | G2 | Green data |
| 16 | G3 | Green data |
| 17 | G4 | Green data |
| 18 | G5 | Green data |
| 19 | G6 | Green data |
| 20 | G7 | Green data(MSB) |
| 21 | B0 | Blue data(LSB) |
| 22 | B1 | Blue data |
| 23 | B2 | Blue data |
| 24 | B3 | Blue data |
| 25 | B4 | Blue data |
| 26 | B5 | Blue data |
| 27 | B6 | Blue data |
| 28 | B7 | Blue data(MSB) |
| 29 | GND | Power Ground |
| 30 | CLK | Sample clock |
| 31 | DISP | Display on/off |
| 32 | NC | No connection |
| 33 | NC | No connection |
| 34 | DE | Data input enable |
| 35 | NC | No connection |
| 36 | GND | Power Ground |
| 37 | XR | Right electrode |
| 38 | YD | Down electrode |
| 39 | XL | Left electrode |
| 40 | YU | Top electrode |

Contour Drawing



RAYSTAR OPTRONICS

Absolute Maximum Ratings

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

Electrical Characteristics

Typical Operation Conditions

| Item | Symbol | Values | | | Unit |
|---------------------------|-----------------|---------|-----|---------|------|
| | | Min | Typ | Max | |
| Power voltage | VDD | 3.1 | 3.3 | 3.5 | V |
| Current for Driver(Black) | I _{dd} | - | 110 | 170 | mA |
| Input logic high voltage | V _{IH} | 0.7 VDD | - | VDD | V |
| Input logic low voltage | V _{IL} | 0 | - | 0.3 VDD | |

Backlight Driving Conditions

| Item | Symbol | Values | | | Unit |
|---------------------------|----------------|--------|--------|-----|------|
| | | Min | Typ | Max | |
| Voltage for LED backlight | V _L | 18 | 19.2 | 20 | V |
| Current for LED backlight | I _L | - | 60 | - | mA |
| LED life time | - | - | 50,000 | - | Hr |