

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF1560ATWFA5LEN0#

General Specifications

| Item | Dimension | Unit |
|------------------|-----------------------------------|------|
| Size | 15.6 | inch |
| Dot Matrix | 1920 x RGB x 1080 | dots |
| Module dimension | 363.8(W) x 215.9(H)x 20.8 (D) | mm |
| Active area | 344.16 x 193.59 | mm |
| Pixel pitch | 0.17925 (H) x 0.17925 (V) | mm |
| LCD type | TFT, Normally Black, Transmissive | |
| Viewing Angle | 89/89/89/89 | |
| Backlight Type | LED, Normally White | |
| Controller IC | CH7513A-BFI | |
| TFT Interface | eDP | |
| With /Without TP | Without TP | |
| 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 | — | +85 | °C |
| Storage Temperature | TST | -40 | — | +90 | °C |

Electrical Characteristics

Operating conditions:

| Item | Symbol | Min | Typ | Max | Unit |
|------------------------|--------|-----|-----|------|------|
| Supply Voltage For LCM | P1 VDD | 4.7 | 5 | 5.3 | V |
| Supply Current For LCM | P1 IDD | — | 900 | 1350 | mA |

Backlight conditions:

| Item | Symbol | Min | Typ | Max | Unit |
|-------------------------------|--------|------|--------|------|------|
| Supply Voltage For Back Light | P2 VDD | 11.5 | 12 | 12.5 | V |
| Supply Current For Back Light | P2 IDD | — | 1000 | 1500 | mA |
| LED life time | — | — | 50,000 | — | Hr |

Interface

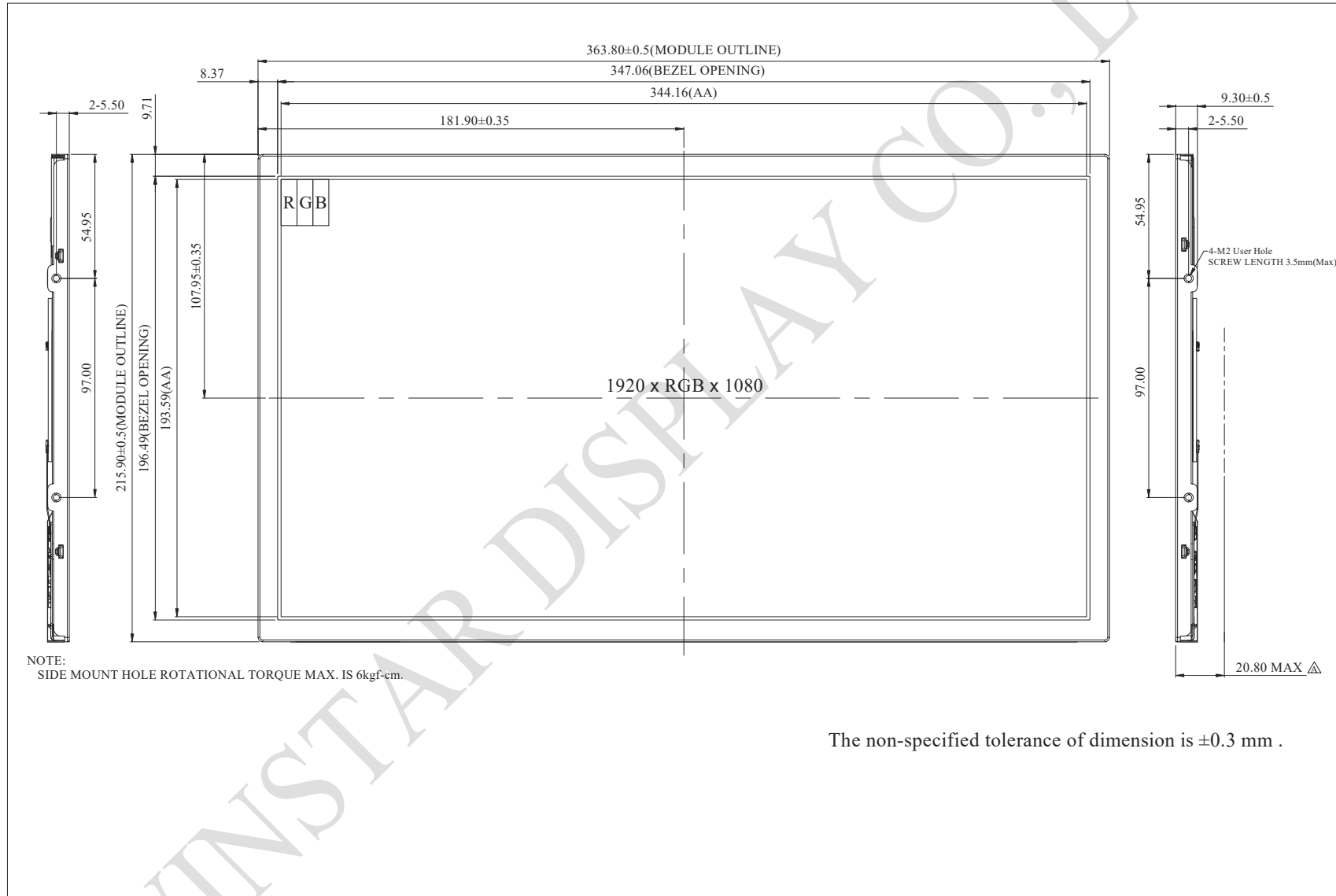
1.LCM PIN Definition

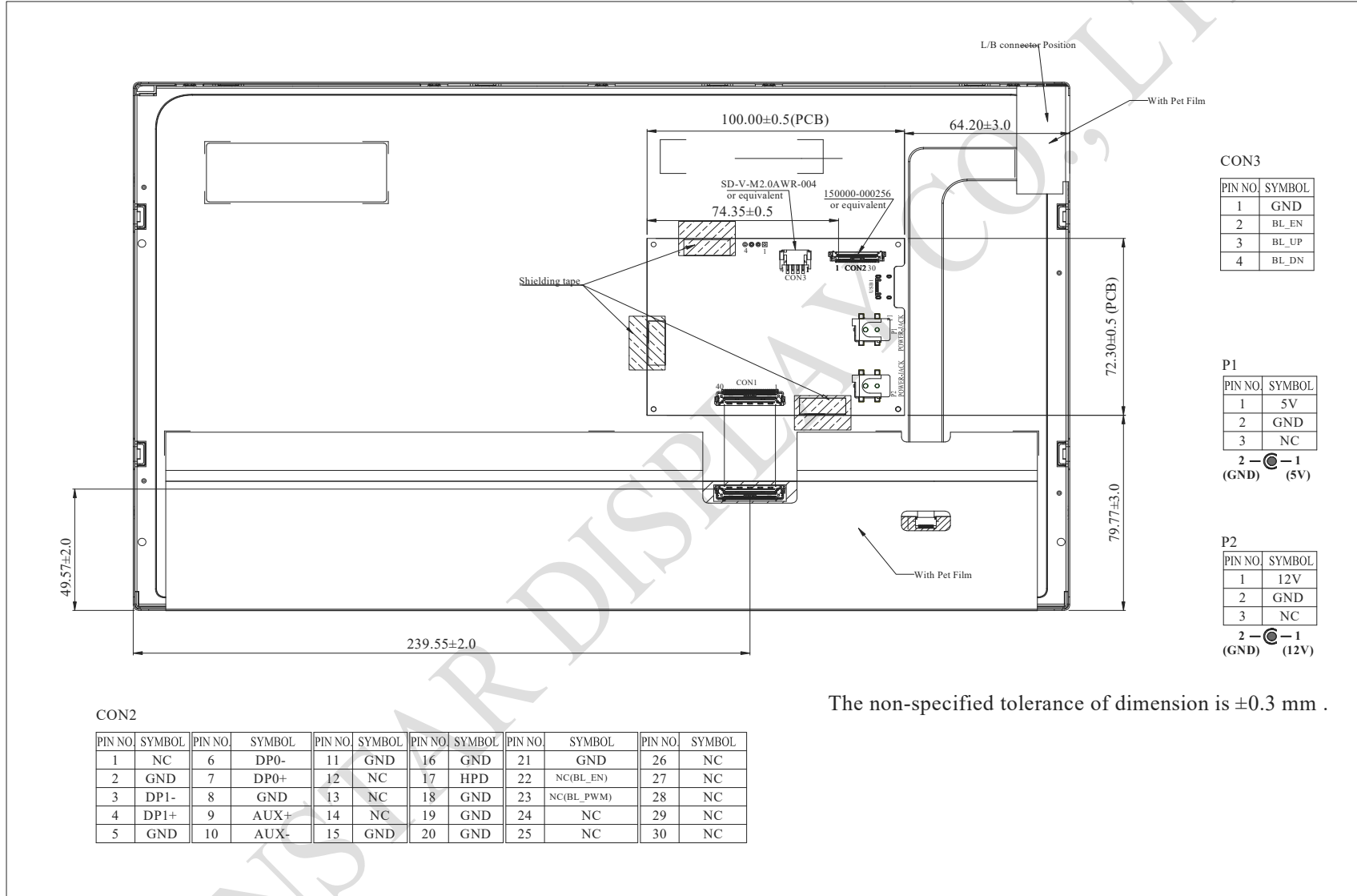
| Pin No. | Signal Name | Description | Remarks |
|---------|-------------|--|---------|
| 1 | NC | Not connection | |
| 2 | GND | Ground | |
| 3 | DP1- | Complement Signal Link Lane 1 | |
| 4 | DP1+ | True Signal Line 1 | |
| 5 | GND | Ground | |
| 6 | DP0- | Complement Signal Link Lane 0 | |
| 7 | DP0+ | True Signal Line 0 | |
| 8 | GND | Ground | |
| 9 | AUX+ | True Signal Auxiliary Ch. | |
| 10 | AUX- | Complement Signal Auxiliary Ch. | |
| 11 | GND | Ground | |
| 12-14 | NC | Not connection (If Pin 12 and Pin 13 have voltage input, it will not affect the use) | |
| 15-16 | GND | Ground | |
| 17 | HPD | HPD Signal Pin | |
| 18-21 | GND | Ground | |
| 22 | NC(BL_EN) | Not connection | |
| 23 | NC(BL_PWM) | Not connection | |
| 24-30 | NC | Not connection(If Pin 26~Pin 29 have voltage input, it will not affect the use) | |

2. Back light PIN Definition

| Pin No. | Signal Name | Description | Remarks |
|---------|-------------|---|---------|
| 1 | GND | Ground | |
| 2 | BL_EN | Back light Enable | |
| 3 | BL_UP | Back light Increment Backlight Brightness | |
| 4 | BL_DN | Back light Decrement Backlight Brightness | |

Contour Drawing





CON3

| PIN NO. | SYMBOL |
|---------|--------|
| 1 | GND |
| 2 | BL_EN |
| 3 | BL_UP |
| 4 | BL_DN |

P1

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

2 - 1
(GND) (5V)

P2

| PIN NO. | SYMBOL |
|---------|--------|
| 1 | 12V |
| 2 | GND |
| 3 | NC |

2 - 1
(GND) (12V)

CON2

| PIN NO. | SYMBOL | PIN NO. | SYMBOL | PIN NO. | SYMBOL | PIN NO. | SYMBOL | PIN NO. | SYMBOL | PIN NO. | SYMBOL |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|------------|---------|--------|
| 1 | NC | 6 | DP0- | 11 | GND | 16 | GND | 21 | GND | 26 | NC |
| 2 | GND | 7 | DP0+ | 12 | NC | 17 | HPD | 22 | NC(BL_EN) | 27 | NC |
| 3 | DP1- | 8 | GND | 13 | NC | 18 | GND | 23 | NC(BL_PWM) | 28 | NC |
| 4 | DP1+ | 9 | AUX+ | 14 | NC | 19 | GND | 24 | NC | 29 | NC |
| 5 | GND | 10 | AUX- | 15 | GND | 20 | GND | 25 | NC | 30 | NC |

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