

# TFT DISPLAY SPECIFICATION



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



## SPECIFICATION

**MODULE NO.: WF88BTYA8MNN0#**

### General Specifications

| Item             | Dimension                         | Unit |
|------------------|-----------------------------------|------|
| Size             | 8.8                               | inch |
| Dot Matrix       | 480 x R.G.B. x 1920               | dots |
| Module dimension | 231.3*64.3*6.1                    | mm   |
| Active area      | 218.88 *54.72                     | mm   |
| Pixel pitch      | 0.114 x 0.114                     | mm   |
| LCD type         | TFT, Normally black, Transmissive |      |
| Viewing angle    | 85/85/85/85                       |      |
| Aspect Ratio     | 1:4                               |      |
| Backlight Type   | LED ,Normally White               |      |
| TFT Driver IC    | OTA7290N                          |      |
| TFT Interface    | 4-Lanes MIPI                      |      |
| Touch Panel      | Without Touch Panel               |      |
| Surface          | 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

### 1. TFT LCD Module

| Item                    | Symbol | Min.    | Typ. | Max.    | Unit |
|-------------------------|--------|---------|------|---------|------|
| Supply Voltage          | VDD    | 3.0     | 3.3  | 3.6     | V    |
|                         | VGH    | 17.0    | 18.0 | 19.0    | V    |
|                         | VGL    | -11     | -10  | -9      | V    |
|                         | AVDD   | 11.8    | 12   | 12.2    | V    |
| VCOM                    | VCOM   | 4.5     | 4.88 | 5.2     | V    |
| Input signal voltage    | ViH    | 0.7 VDD | -    | VDD     | V    |
|                         | ViL    | 0       | -    | 0.3 VDD | V    |
| Current of power supply | IDD    | -       | -    | 35      | mA   |
|                         | IADD   | -       | -    | 30      | mA   |
|                         | IGH    | -       | -    | 5       | mA   |
|                         | IGL    | -       | -    | -5      | mA   |
|                         | Ivcom  | -       | -    | 0.1     | mA   |

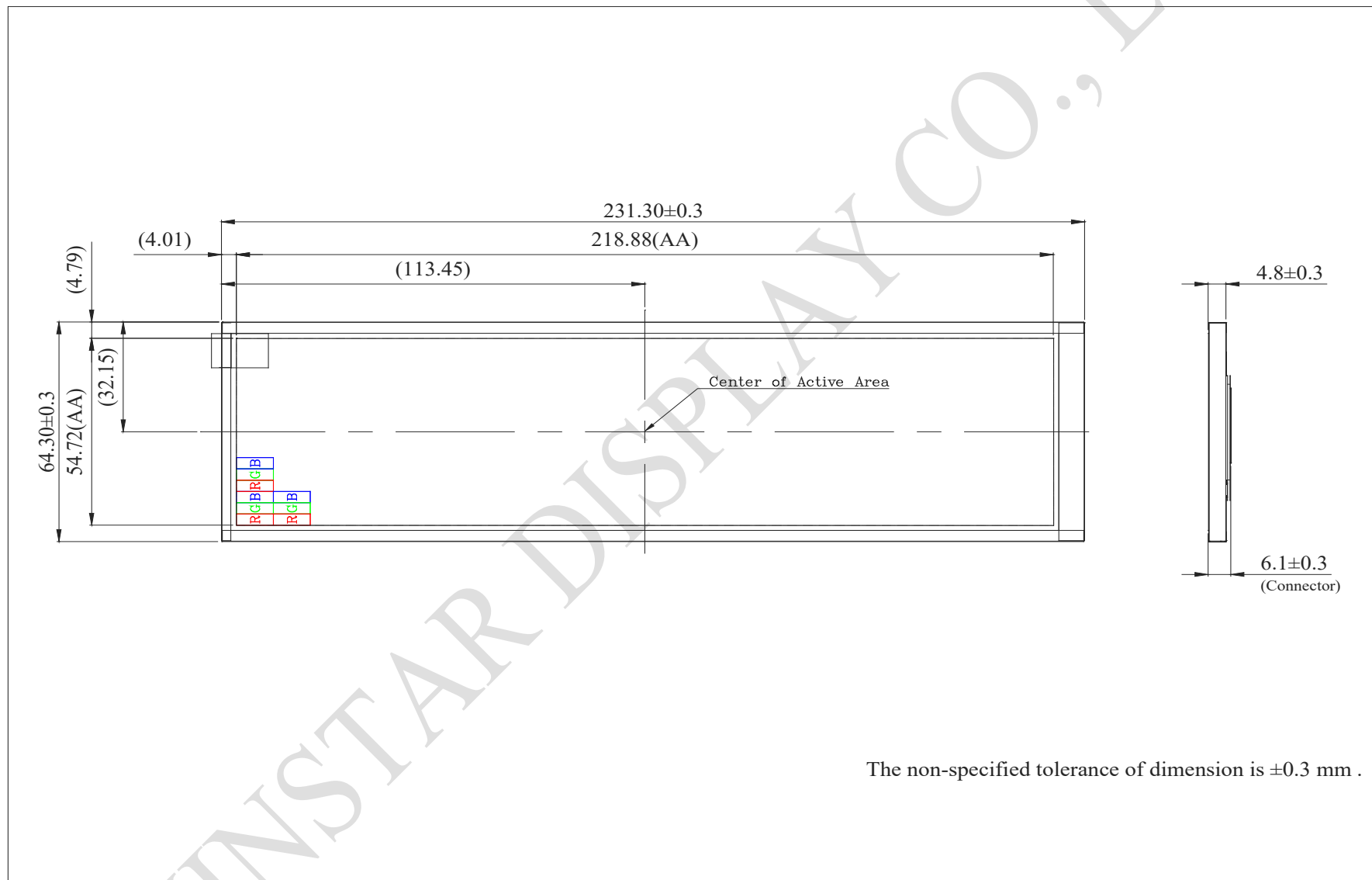
# Interface

FPC connector is used for electronics interface. The recommended model is Hirose FH34SRJ-40S-0.5SH(50)

| Pin No. | Symbol  | I/O | Function                           |
|---------|---------|-----|------------------------------------|
| 1       | GND     | P   | Ground                             |
| 2       | NC      | --- | No connection                      |
| 3       | LED+    | P   | LED Anode                          |
| 4       | LED+    | P   | LED Anode                          |
| 5       | NC      | --- | No connection                      |
| 6       | LED-    | P   | LED Cathode                        |
| 7       | LED-    | P   | LED Cathode                        |
| 8       | NC      | --- | No connection                      |
| 9       | GND     | P   | Ground                             |
| 10      | NC      | --- | No connection                      |
| 11      | AVDD    | P   | Power supply for analog circuit    |
| 12      | NC      | --- | No connection                      |
| 13      | VGH     | P   | Power supply for analog circuit    |
| 14      | NC      | --- | No connection                      |
| 15      | VGL     | P   | Power supply for analog circuit    |
| 16      | NC      | --- | No connection                      |
| 17      | GND     | P   | Ground                             |
| 18      | VCOM    | P   | Power supply for common voltage    |
| 19      | GND     | P   | Ground                             |
| 20      | GND     | P   | Ground                             |
| 21      | RESET   | I   | Global reset                       |
| 22      | VDD     | P   | Power supply for digital circuits  |
| 23      | STBYB   | I   | Standby mode                       |
| 24      | TP_Sync | O   | Sync signal for touch panel        |
| 25      | GND     | P   | Ground                             |
| 26      | D0P     | I   | MIPI Data Input Lane0 positive-end |
| 27      | D0N     | I   | MIPI Data Input Lane0 negative-end |
| 28      | GND     | P   | Ground                             |
| 29      | D1P     | I   | MIPI Data Input Lane1 positive-end |
| 30      | D1N     | I   | MIPI Data Input Lane1 negative-end |

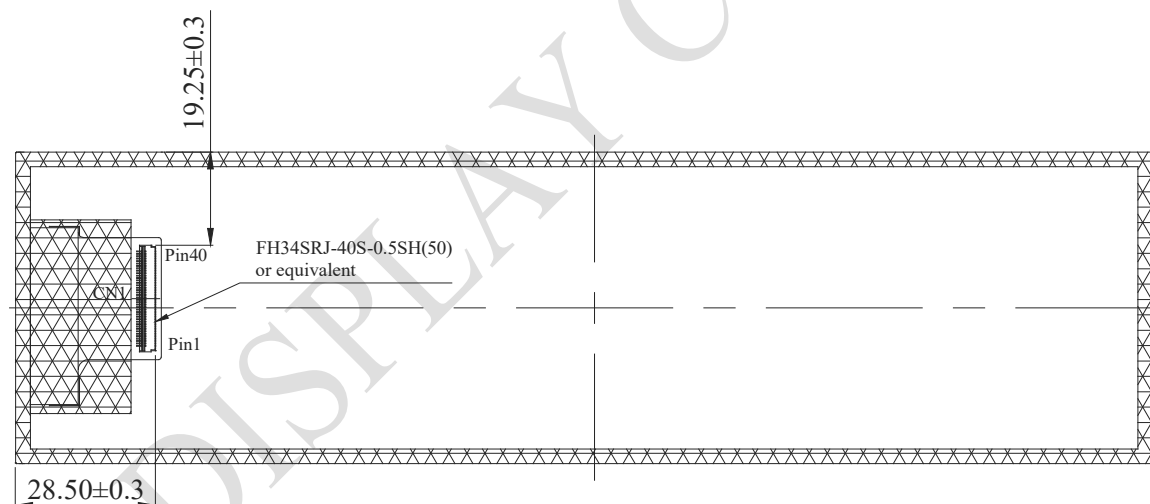
|    |      |   |                                    |
|----|------|---|------------------------------------|
| 31 | GND  | P | Ground                             |
| 32 | CLKP | I | MIPI Clock Input positive-end      |
| 33 | CLKN | I | MIPI Clock Input negative-end      |
| 34 | GND  | P | Ground                             |
| 35 | D2P  | I | MIPI Data Input Lane2 positive-end |
| 36 | D2N  | I | MIPI Data Input Lane2 negative-end |
| 37 | GND  | P | Ground                             |
| 38 | D3P  | I | MIPI Data Input Lane3 positive-end |
| 39 | D3N  | I | MIPI Data Input Lane3 negative-end |
| 40 | GND  | P | Ground                             |

# Contour Drawing



# CN1-FH34SRJ-40S-0.5SH(50)

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



The non-specified tolerance of dimension is  $\pm 0.3$  mm .