

# TFT DISPLAY SPECIFICATION



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



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### SPECIFICATION

**MODULE NO.: WF101KTYAPLNG0#**

### General Specifications

| Item              | Dimension                        | Unit |
|-------------------|----------------------------------|------|
| Screen Diagonal   | 10.1                             | inch |
| Number of Pixels  | 1280 × 3(RGB) × 800              | dots |
| Module dimension  | 257.96 × 168.6 × 5.93            | mm   |
| Active area       | 216.96 (H) × 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      | EK79202B1 or Equivalent          |      |
| Backlight Type    | LED, Normally White              |      |
| Aspect Ratio      | 16:10                            |      |
| TFT Interface     | LVDS                             |      |
| CTP FW Version    | 80                               |      |
| CTP IC            | GT928 or equivalent              |      |
| CTP Interface     | I2C                              |      |
| CTP Resolution    | 1280*800                         |      |
| Touch Panel       | Projected Capacitive 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. Typical Operation Conditions

| Item                           | Symbol | Values |       |       | Unit |
|--------------------------------|--------|--------|-------|-------|------|
|                                |        | Min.   | Typ.  | MAX.  |      |
| Power voltage                  | VCC    | 3.0    | 3.3   | 3.5   | V    |
|                                | VGH    | 17.5   | 18    | 18.5  | V    |
|                                | VGL    | -11.5  | -10.5 | -10.0 | V    |
|                                | VSP    | —      | 5.5   | —     | V    |
|                                | VSN    | —      | -5.5  | —     | V    |
| Supply Voltage For Touch Logic | VDDT   | 2.8    | —     | 3.3   | V    |

# Interface

## Interface Connector

A 40pin connector is used for the module electronics interface. The recommended model is F62240-H1210B manufactured by Vigorconn.

| Pin No. | Symbol | I/O | Function                       |
|---------|--------|-----|--------------------------------|
| 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       | Rxin0- | I   | -LVDS Differential Data Input  |
| 9       | Rxin0+ | I   | +LVDS Differential Data Input  |
| 10      | GND    | P   | Ground                         |
| 11      | Rxin1- | I   | -LVDS Differential Data Input  |
| 12      | Rxin1+ | I   | +LVDS Differential Data Input  |
| 13      | GND    | P   | Ground                         |
| 14      | Rxin2- | I   | -LVDS Differential Data Input  |
| 15      | Rxin2+ | I   | +LVDS Differential Data Input  |
| 16      | GND    | P   | Ground                         |
| 17      | RxCLK- | I   | -LVDS Differential Clock Input |
| 18      | RxCLK+ | I   | +LVDS Differential Clock Input |
| 19      | GND    | P   | Ground                         |
| 20      | Rxin3- | I   | -LVDS Differential Data Input  |
| 21      | Rxin3+ | I   | +LVDS Differential Data Input  |
| 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                  |

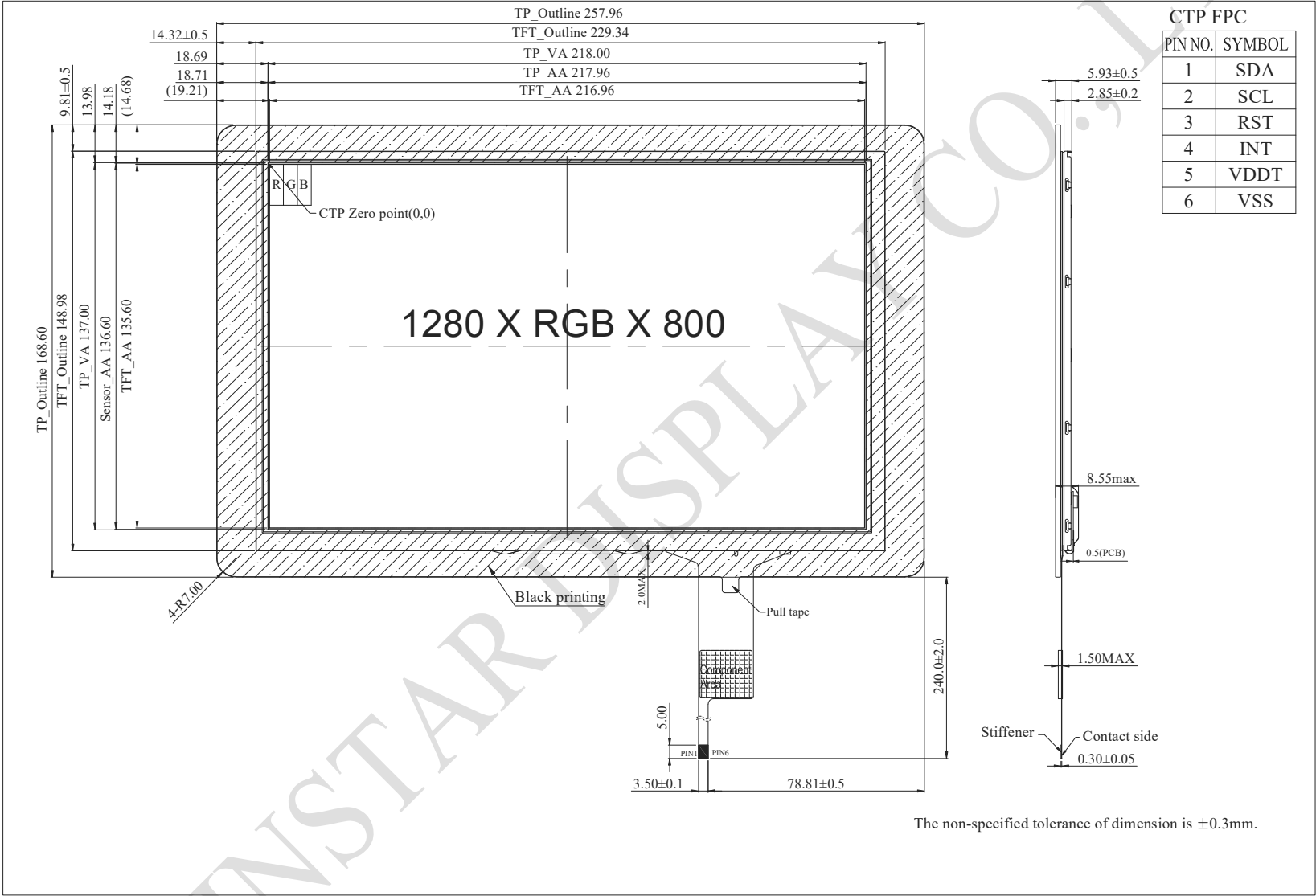
|    |      |   |                  |
|----|------|---|------------------|
| 30 | GND  | P | Ground           |
| 31 | LED- | P | LED Cathode      |
| 32 | LED- | P | LED Cathode      |
| 33 | NC   | - | No connection    |
| 34 | NC   | - | No connection    |
| 35 | VGL  | P | Gate OFF Voltage |
| 36 | NC   | - | No connection    |
| 37 | NC   | - | No connection    |
| 38 | VGH  | P | Gate ON Voltage  |
| 39 | LED+ | P | LED Anode        |
| 40 | LED+ | P | LED Anode        |

I: input, O: output, P: Power

#### .CTP PIN Definition

| Pin | Symbol | Function                       |
|-----|--------|--------------------------------|
| 1   | SDA    | I2C data input and output      |
| 2   | SCL    | I2C clock input                |
| 3   | RST    | External Reset, Low is active  |
| 4   | INT    | External interrupt to the host |
| 5   | VDDT   | Power Supply : +3.3V           |
| 6   | VSS    | Ground for analog circuit      |

# Contour Drawing



| CN1    |        |        |        |
|--------|--------|--------|--------|
| PIN NO | SYMBOL | PIN NO | SYMBOL |
| 1      | NC     | 21     | Rxin3+ |
| 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      | Rxin0- | 28     | NC     |
| 9      | Rxin0+ | 29     | NC     |
| 10     | GND    | 30     | GND    |
| 11     | Rxin1- | 31     | LED-   |
| 12     | Rxin1+ | 32     | LED-   |
| 13     | GND    | 33     | NC     |
| 14     | Rxin2- | 34     | NC     |
| 15     | Rxin2+ | 35     | VGL    |
| 16     | GND    | 36     | NC     |
| 17     | RxCLK- | 37     | NC     |
| 18     | RxCLK+ | 38     | VGH    |
| 19     | GND    | 39     | LED+   |
| 20     | Rxin3- | 40     | LED+   |

