

# TFT DISPLAY SPECIFICATION



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



# Winstar Display Co., LTD

## 華凌光電股份有限公司



WEB: <https://www.winstar.com.tw> E-mail: sales@winstar.com.tw

### SPECIFICATION

**MODULE NO.: WF0840ATWAMLNB0#**

### General Specifications

| Item              | Dimension                       | Unit |
|-------------------|---------------------------------|------|
| Screen Diagonal   | 8.4                             | inch |
| Number of Pixels  | 1024 × 3(BGR) × 768             | dots |
| Module dimension  | 199.5 × 149.0 × 14.3            | mm   |
| Active area       | 170.8032 (H) × 128.1024(V)      | mm   |
| Pixel pitch       | 0.1668 × 0.1668                 | mm   |
| Display Mode      | Normally Black , Transmissive   |      |
| Viewing Angle     | 80/80/80/80                     |      |
| TFT Drive IC      | ST5821AH+ST5084AA or Equivalent |      |
| TFT Interface     | LVDS                            |      |
| Backlight Type    | LED, Normally White             |      |
| Aspect Ratio      | 4:3                             |      |
| Side screw torque | Typ:0.9 Max:1.3 (Unit,Kgf-cm)   |      |
| PCAP IC           | EXC81W32 or equivalent          |      |
| PCAP Interface    | USB (I2C available)             |      |
| PCAP FW Version   | 00_T1_M03                       |      |
| PCAP Resolution   | 16384x16384                     |      |
| Touch Panel       | With PCAP                       |      |
| Surface           | Glare                           |      |

\*Color tone slight changed by temperature and driving voltage.

# Absolute Maximum Ratings

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

# Electrical Characteristics

Operating conditions:

| Item                     | Symbol        | Min      | Typ         | Max         | Unit |
|--------------------------|---------------|----------|-------------|-------------|------|
| Supply Voltage For Logic | $V_{DD}$      | 3.0      | 3.3         | 3.6         | V    |
| Power Supply For Current | $V_{DD}=3.3V$ | —        | 330         | 495         | mA   |
| Input Voltage            | H level       | $V_{IH}$ | $0.7V_{DD}$ | $V_{DD}$    | V    |
|                          | L Level       | $V_{IL}$ | GND         | $0.3V_{DD}$ | V    |
| Supply CTP               | USB_VDD 5V    | 4.4      | 5.0         | 5.5         | V    |
|                          | $I_{VDD\ 5V}$ | —        | 45          | 68          | mA   |
|                          | VDDT          | 2.8      | 3.3         | 3.5         | V    |
|                          | $I_{VDDT}$    | —        | 45          | 68          | mA   |

# Interface

## 1. LCM PIN Definition

| Pin No. | Symbol | Function   | Remark |
|---------|--------|--|--------|
| 1       | VDD    | Power supply   |        |
| 2       | VDD    | Power supply   |        |
| 3       | GND    | Ground   |        |
| 4       | GND    | Ground   |        |
| 5       | Link0- | 0- LVDS differential data input ( <b>D0N</b> )       |        |
| 6       | Link0+ | 0+ LVDS differential data input ( <b>D0P</b> )       |        |
| 7       | GND    | Ground   |        |
| 8       | Link1- | 1- LVDS differential data input ( <b>D1N</b> )       |        |
| 9       | Link1+ | 1+ LVDS differential data input ( <b>D1P</b> )       |        |
| 10      | GND    | Ground   |        |
| 11      | Link2- | 2- LVDS differential data input ( <b>D2N</b> )       |        |
| 12      | Link2+ | 2+ LVDS differential data input ( <b>D2P</b> )       |        |
| 13      | GND    | Ground   |        |
| 14      | CLKIN- | - LVDS differential clock input ( <b>CLKN</b> )      |        |
| 15      | CLKIN+ | + LVDS differential clock input ( <b>CLKP</b> )      |        |
| 16      | GND    | Ground   |        |
| 17      | Link3- | 3- LVDS differential data input ( <b>D3N</b> )       |        |
| 18      | Link3+ | 3+ LVDS differential data input ( <b>D3P</b> )       |        |
| 19      | MODE   | Bit 6/8:Low(6 Bit);High(8 Bit)                       |        |
| 20      | SC     | Scan direction selector (Low: Normal ;High: Reverse) |        |

## 2. CN2

| Pin No. | Symbol | Function       | Remark |
|---------|--------|----------------|--------|
| 1       | NC     | No connection  |        |
| 2       | NC     | No connection  |        |
| 3       | LED C1 | LED_ Cathode 1 |        |
| 4       | LED A1 | LED_ Anode 1   |        |
| 5       | LED A2 | LED_ Anode 2   |        |
| 6       | LED C2 | LED_ Cathode 2 |        |

### 3. PCAP PIN Definition

| Pin | Symbol     | Function   | Remark |
|-----|------------|--|--------|
| 1   | USB_VSS    | System ground                                    |        |
| 2   | USB_VDD 5V | Power supply                                     |        |
| 3   | USB_D+     | Data +   |        |
| 4   | USB_D-     | Data -   |        |
| 5   | VSS        | System ground                                    |        |
| 6   | SDA        | I2C data input and output (Must be pulled high.) |        |
| 7   | SCL        | I2C clock input (Must be pulled high.)           |        |
| 8   | RST        | External Reset, Low is active                    |        |
| 9   | INT        | External interrupt to the host                   |        |
| 10  | VDDT 3.3   | Power supply                                     |        |

# Contour Drawing



