



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



## **SPECIFICATION**

**MODEL NO. : WLOF0007000A8GDAASA00**

### **Summary**

#### **7 Inch Smart Display (RS485 series) Features**

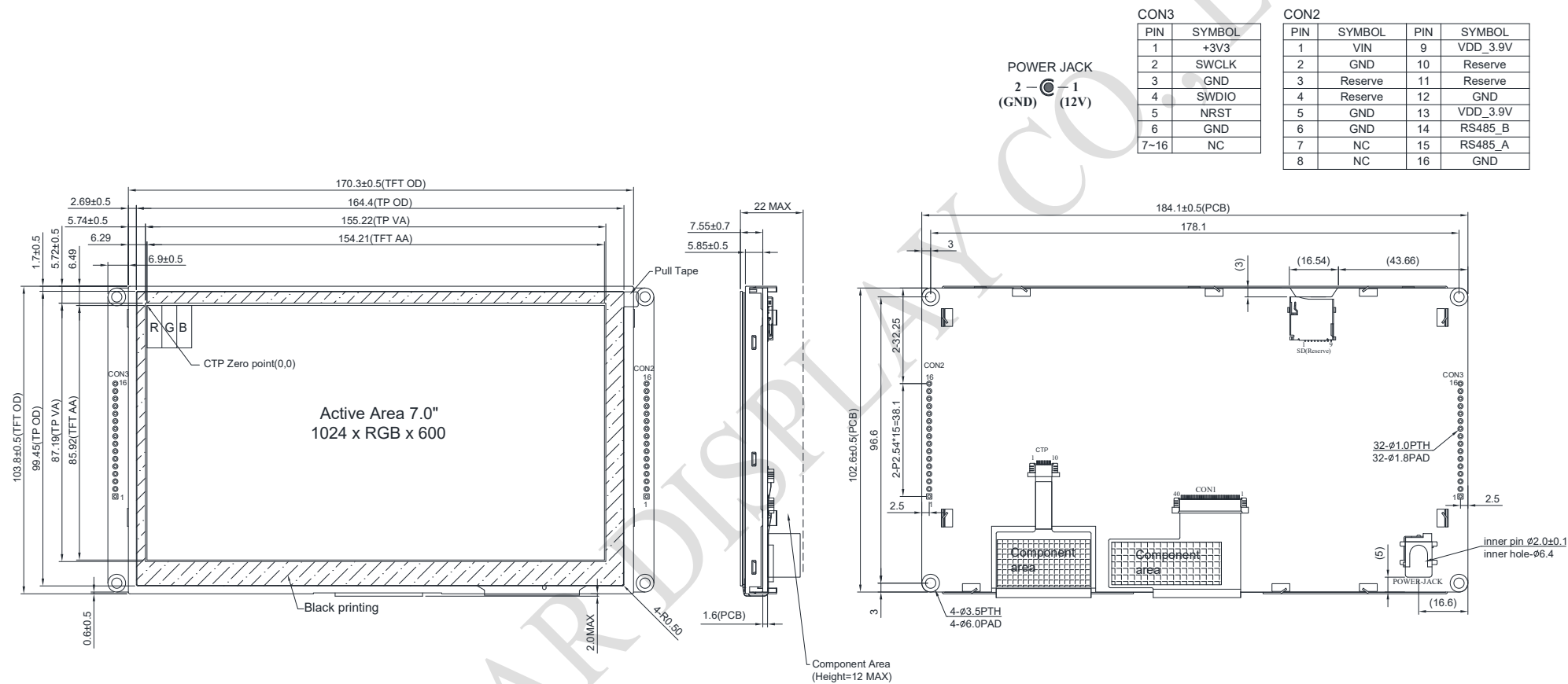
1. +12V power supply input with 5V to 16V dynamic range power input, the power consumption is around 6 Watt.
2. Self testing after booting function.
3. RS485 communication interface.
4. Built in flash memory, store the font and Object Dictionary Data.
5. Support capacitive touch panel (CTP).
6. Embedded buzzer controlled by Master Device.
7. HOST can be used on multiple platforms, such as Computer (with USB to RS-485 Dongle), MCU.

# Product information

## General information

| Item                    | Standard Value              | Unit              |
|-------------------------|-----------------------------|-------------------|
| Operating voltage       | 5~16V                       | Vdc               |
| Communication Interface | RS485 differential          |                   |
| MCU                     | STM32F746                   | N/A               |
| Flash Memory            | 16                          | MB                |
| SDRAM Frequency         | 108                         | MHz               |
| LCD display size        | 7.0                         | inch              |
| Dot Matrix              | 1024 x RGBx600(TFT)         | dot               |
| Module dimension        | 184.1(W) x 103.8(H) x 22(D) | mm                |
| Active area             | 154.2144 x 85.92            | mm                |
| Dot pitch               | 0.1506 x 0.1432             | mm                |
| Brightness              | Min:400; Typ:450            | cd/m <sup>2</sup> |
| LCD type                | LED, Normally White         |                   |
| View Direction          | 85/85/85/85                 |                   |
| Aspect Ratio            | 16:9                        |                   |
| Touch Panel             | With PCAP                   |                   |
| Surface                 | Glare                       |                   |

# Contour Drawing



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

## Absolute Maximum Ratings

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

## Electrical Characteristics

| Item           | Symbol | Condition | Min | Typ | Max | Unit |
|----------------|--------|-----------|-----|-----|-----|------|
| Supply Voltage | VIN    | —         | 5   | 12  | 16  | V    |
| Supply current | I(mA)  | —         | —   | 490 | —   | mA   |

## BOM

| Item | Description          |
|------|----------------------|
| LCM  | WF70A8TYAHLNGB#      |
| PCBA | SV10007R00AAA00N0104 |

# Interface

## CON2 definition:

| Pin | Symbol   | Function               | Remark |
|-----|----------|------------------------|--------|
| 1   | VIN      | Power supply V+        | Input  |
| 2   | GND      | Power supply GND input | Input  |
| 3   | Reserve  | —                      | —      |
| 4   | Reserve  | —                      | —      |
| 5   | GND      | Power supply GND input | Input  |
| 6   | GND      | Power supply GND input | Input  |
| 7   | NC       | —                      | —      |
| 8   | NC       | —                      | —      |
| 9   | VDD_3.9V | —                      | —      |
| 10  | Reserve  | —                      | —      |
| 11  | Reserve  | —                      | —      |
| 12  | GND      | GND                    | GND    |
| 13  | VDD_3.9V | —                      | —      |
| 14  | RS485_B  | RS485 DATA-            | I/O    |
| 15  | RS485_A  | RS485 DATA+            | I/O    |
| 16  | GND      | GND                    | GND    |

## CON3 definition:

| Pin  | Symbol | Function                      | Remark |
|------|--------|-------------------------------|--------|
| 1    | +3V3   | 3.3V power for JTAG interface | Output |
| 2    | SWCLK  | CLK pin for JTAG interface    | Input  |
| 3    | GND    | GND for JTAG interface        | Output |
| 4    | SWDIO  | Data pin for JTAG interface   | I/O    |
| 5    | NRST   | Reset pin for JTAG interface  | Input  |
| 6    | GND    | GND                           | Output |
| 7~16 | NC     | —                             | —      |