



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



## **SPECIFICATION**

**MODEL NO. : WLOF00050000FGAACSA00**

### **Summary**

#### **5 Inch Smart Display Feature**

1. DC 5V working voltage.
2. Self-testing after booting function.
3. CAN bus communication interface.
4. Support CANopen protocol with default baud rate 250KB.
5. Built in 16MB external flash memory to store the font and Object Dictionary Data.
6. Support capacitive touch panel (CTP).
7. Smart Display scenario is slave device and controlled by Master Device's instruction.
8. Build in buzzer and can be controlled by Master Device.
9. Demo set HOST can be used on multiple platforms, such as Computer (with USB to CAN Dongle), MCU, Raspberry Pi (with PiCAN2).

# Product information

## General information

| Item                    | Standard Value                     | Unit              |
|-------------------------|------------------------------------|-------------------|
| Operating voltage       | 5                                  | Vdc               |
| Communication Interface | CAN bus differential $\pm 3.3$     | Vpp               |
| MCU                     | STM32F750                          | N/A               |
| Flash Memory            | 16                                 | MB                |
| SDRAM Frequency         | 108                                | MHz               |
| LCD display size        | 5.0                                | inch              |
| Dot Matrix              | 800× 3(RGB) × 480                  | dot               |
| Module dimension        | 132.7(W) ×75.8(H) ×12.5            | mm                |
| Active area             | 108(W) ×64.8 (H)                   | mm                |
| Pixel pitch             | 0.135(W) ×0.135(H)                 | mm                |
| Brightness              | Min: 300; Typ: 400                 | cd/m <sup>2</sup> |
| LCD type                | TFT, Normally Black , Transmissive |                   |
| View Direction          | 80/80/80/80                        |                   |
| Aspect Ratio            | 15:9                               |                   |
| Touch Pane              | With CTP                           |                   |
| Surface                 | Glare                              |                   |

[illegible]

## Absolute Maximum Ratings

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

## Electrical Characteristics

| Item           | Symbol | Min  | Typ | Max  | Unit |
|----------------|--------|------|-----|------|------|
| Supply Voltage | VCC    | 4.75 | 5   | 5.25 | V    |
| Supply Current | ICC    |      | 430 |      | mA   |

## BOM

| Item | Description          |
|------|----------------------|
| LCM  | WF50FTWAGDNG0#       |
| PCBA | SV10005R000FF00N0100 |

# Interface

## CON1 definition:

| Pin | Symbol  | Function                    | Remark  |
|-----|---------|-----------------------------|---------|
| 1   | +5V     | Power supply 5V input       | Input   |
| 2   | GND     | Power supply GND input      | Input   |
| 3   | CAN_H   | CAN bus D+                  | I/O     |
| 4   | CAN_L   | CAN bus D-                  | I/O     |
| 5   | VDD_5V  | Power supply 5V input       | Input   |
| 6   | NC      | --                          | -       |
| 7   | NC      | --                          | -       |
| 8   | GND     | Power supply GND input      | Input   |
| 9   | VDD_5V  | Power supply 5V input       | Input   |
| 10  | Reserve | USART RX interface(Reserve) | Reserve |
| 11  | Reserve | USART TX interface(Reserve) | Reserve |
| 12  | GND     | Power supply GND input      | Input   |
| 13  | VDD_5V  | Power supply 5V input       | Input   |
| 14  | NC      | --                          | -       |
| 15  | NC      | --                          | -       |
| 16  | GND     | Power supply GND input      | Input   |

## CON2 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     | --                            | -      |