



WINSTAR Display Co.,Ltd.
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SPECIFICATION

MODEL NO. : WLOF00050000FGAAESA00

Summary

5 Inch Smart Display (Custom CAN ID series) Feature

1. Input voltage dynamic range 5V to 28V, typical voltage 12V.
2. Self-testing after booting function.
3. CAN bus communication interface.
4. Supports Custom CAN ID protocol, default baud rate at 250Kbps.
5. Built in 16MB external flash memory to store the font and Object Dictionary Data.
6. Support capacitive touch panel (CTP).
7. Build in buzzer and can be controlled by Master Device.
8. Demo set HOST can be used on multiple platforms, such as Computer (with USB to CAN Dongle), MCU, Raspberry Pi (with PiCAN2).
9. GPIO PIN support.

Product information

General information

Item	Standard Value	Unit
Operating voltage	12	Vdc
Communication Interface	CAN Bus	--
MCU	STM32F750	N/A
Flash Memory	16	MB
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 ²
LCD type	TFT, Normally Black , Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	15:9	
Touch Panel	With CTP	
Surface	Glare	

Technical drawing of a 5.0 inch TFT module showing top and side views with dimensions.

Top View Dimensions:

- Overall width: 132.7 ± 0.5 (PCB)
- TP OD: 119.7
- TP VA: 109
- TFT AA: 108
- TP OD offset: 6 ± 0.5
- TP VA offset: 0.5 ± 0.5
- TFT AA offset: 5.8 ± 0.5
- TP offset: 6.3
- TP offset (TFT): 4.61 ± 0.5
- TP offset (TP): 1.68
- TP offset (MAX): 12.5

Vertical Dimensions:

- TP OD: 75.8 ± 0.3
- TP VA: 75.4 ± 0.5
- TFT AA: 75.2
- TP offset: 65.6
- TFT AA offset: 64.8
- TP offset (MAX): 2

Other Dimensions:

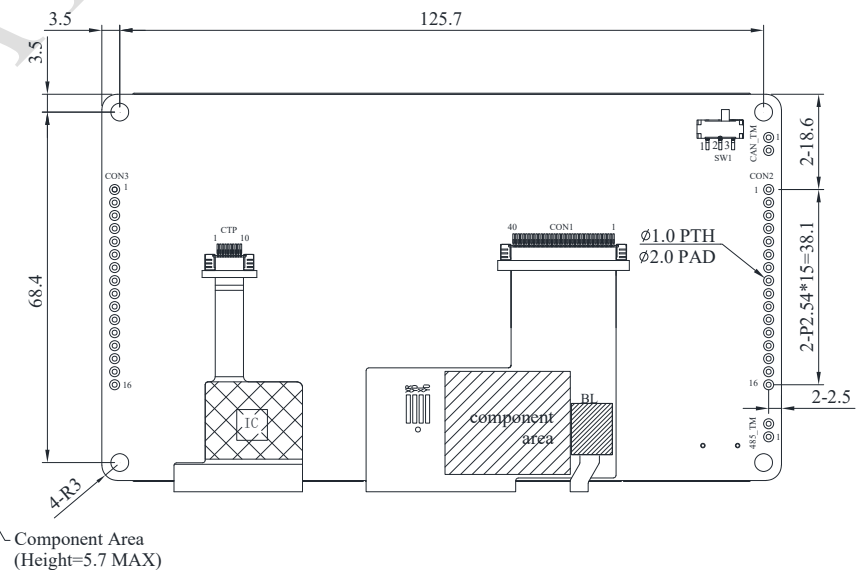
- TP offset (MAX): $4-R0.5$
- TP offset (MAX): $4-\phi 3.5$ (NPTH)
- TP offset (MAX): 1.6 (PCB)
- TP offset (MAX): $C0.15$

Internal Features:

- Active Area: $5.0"$
- Resolution: 800×3 (RGB) $\times 480$
- CTP Zero point (0,0)
- Black Printing
- Pull tape

PIN	SYMBOL	PIN	SYMBOL
1	+3V3	9	IO_0
2	SWCLK	10	IO_1
3	GND	11	IO_2
4	SWDIO	12	IO_3
5	NRST	13	IO_4
6	GND	14	IO_5
7	Wkup	15	IO_6
8	BOOT0	16	IO_7

PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	VBUS
2	GND	10	Reserve
3	CAN_H	11	Reserve
4	CAN_L	12	GND
5	GND	13	VIN
6	GND	14	Reserve
7	Reserve	15	Reserve
8	Reserve	16	GND



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	5	12	28	V
Supply Current	ICC	610	240	110	mA
I/O pin Voltage	--	--	--	3.3	V

BOM

Item	Description
LCM	WF50FTWAGDNG0#
PCBA	SV10005R000FG00N0100

Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply 5V to 28V 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	GND	Power supply GND input	GND
6	GND	Power supply GND input	GND
7	Reserve	-	-
8	Reserve	-	-
9	VBUS	Power supply 5V input	Input
10	Reserve	-	-
11	Reserve	-	-
12	GND	Power supply GND input	Input
13	VIN	Power supply 5V to 28V input	Input
14	Reserve	-	-
15	Reserve	-	-
16	GND	Power supply GND input	Input

CON3 definition:

Pin	Symbol	Function	Remark
1	+3V3	3.3V power for JTAG interface	Output
2	JTAG_SWCLK	CLK pin for JTAG interface	Input
3	GND	GND for JTAG interface	Output
4	JTAG_SWDIO	Data pin for JTAG interface	I/O
5	NRST	Reset pin for JTAG interface	Input
6	GND	GND	Output
7	WKUP	WKup,ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
8	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	TTL signal voltage is 3.3V
9	IO0	ADC,DAC,Timer,Event,I/O	TTL signal voltage is 3.3V
10	IO1	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
11	IO2	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
12	IO3	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
13	IO4	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
14	IO5	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
15	IO6	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
16	IO7	RST,ADC,Event,I/O	TTL signal voltage is 3.3V