SMART DISPLAY SPECIFICATION



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SPECIFICATION

MODEL NO. : WL0F00039000FGAAASA00-FC

Summary

3.9 Inch Smart Display Feature

1. Input voltage dynamic range 5V to 48V, typical voltage 5V.
2. Self-testing after booting function.
3. CAN bus communication interface.
4. Support Custom CAN ID protocol. Default baud rate is 250Kbps.
5. Built in flash memory 16MB, store the font and Object Dictionary Data.
6. Support capacitive touch panel (CTP).
7. Embedded buzzer 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	5V~ 48V (dynamic)	Vdc
Communication Interface	CAN bus	Vpp
MCU	STM32F750	N/A
Flash Memory	16	MB
LCD display size	3.9	inch
Dot Matrix	480x128 x RGB (TFT)	dot
Module dimension	157.0(W) x 42.0(H) x 16	mm
Active area	95.04 x 25.34	mm
Brightness	Min: 700; Typ: 800	cd/m^2
Pixel pitch	0.198 x 0.198	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	85/85/85/85	
Aspect Ratio	Bar Type	
Touch Panel	Projected Capacitive Touch Panel	
Surface	Glare	

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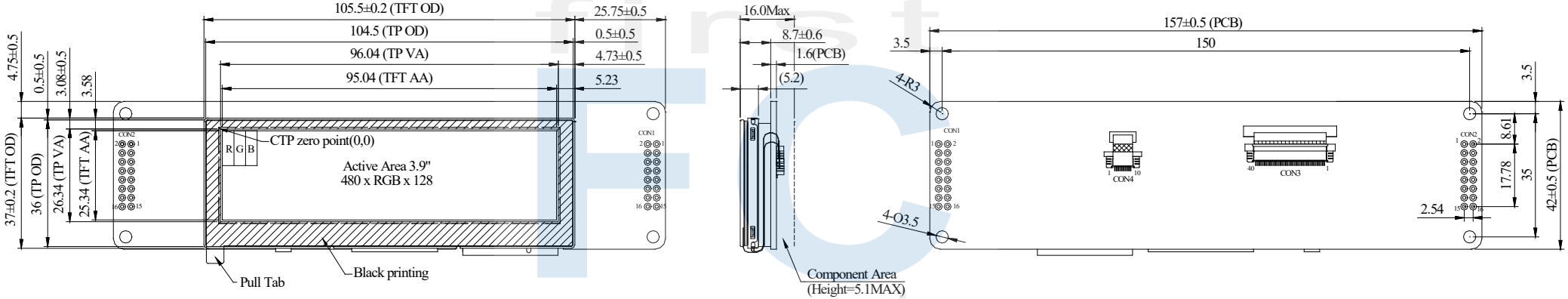
Contour Drawing

CON1

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

CON2

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



The non-specified tolerance of dimension is ±0.3mm.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	℃
Storage Temperature	TST	-40	—	+90	℃

Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For Analog	VCC	5	5	48	V
Interface Operation Voltage	ICC	420	460	50	mA

BOM

Item	Description
LCM	WF39-480128FD#0SPW3-FC
PCBA	SV10003R900FA00N0100

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Interface

CON1 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply 5V to 48V input	Input
2	GND	Power supply GND input	GND
3	GND	Power supply GND input	GND
4	Reserve	Differential signal D-	I/O
5	CAN_H	CAN bus D+	I/O
6	Reserve	Differential signal D+	I/O
7	CAN_L	CAN bus D-	I/O
8	VBUS	5V output for UART interface	Output
9	GND	Power supply GND input	GND
10	Reserve	UART1_RX	I/O
11	Reserve	-	-
12	Reserve	UART1_TX	I/O
13	Reserve	-	-
14	GND	Power supply GND input	GND
15	VIN	Power supply 5V to 48V input	Input
16	GND	Power supply GND input	GND

I/O allow below 3.3V input. If exceeding 3.3V may cause MCU damage.

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CON2 definition:

Pin	Symbol	Function	Remark
1	IO_0	ADC,DAC,Timer,Event,I/O	TTL signal voltage is 3.3V
2	+3V3	3.3V power for JTAG interface	Output
3	IO_1	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
4	SWCLK	CLK pin for JTAG interface	Input
5	IO_2	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
6	GND	GND	Output
7	IO_3	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
8	SWDIO	Data pin for JTAG interface	I/O
9	IO_4	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
10	NRST	Reset pin for JTAG interface	Input
11	IO_5	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
12	GND	GND	Output
13	IO_6	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
14	WKUP	WKup,ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
15	IO_7	RST,ADC,Event,I/O	TTL signal voltage is 3.3V
16	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	TTL signal voltage is 3.3V

I/O allow below 3.3V input. If exceeding 3.3V may cause MCU damage.

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