SMART DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.

華凌光電股份有限公司

SPECIFICATION

MODEL NO. : WL0F00050000FGAAASA00

Summary

5 Inch Smart Display Feature

1. DC 5V working voltage, low power consumption for USB to drive.
2. Self-testing after booting function.
3. CAN bus communication interface.
4. Support CANopen negotiation. Default baud rate is 250KB.
5. Built in flash memory, store the font and Object Dictionary Data.
6. Support capacitive touch panel (CTP).
7. Smart Display scenario is slave device display and action from Master Device instruction.
8. Embedded buzzer 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).

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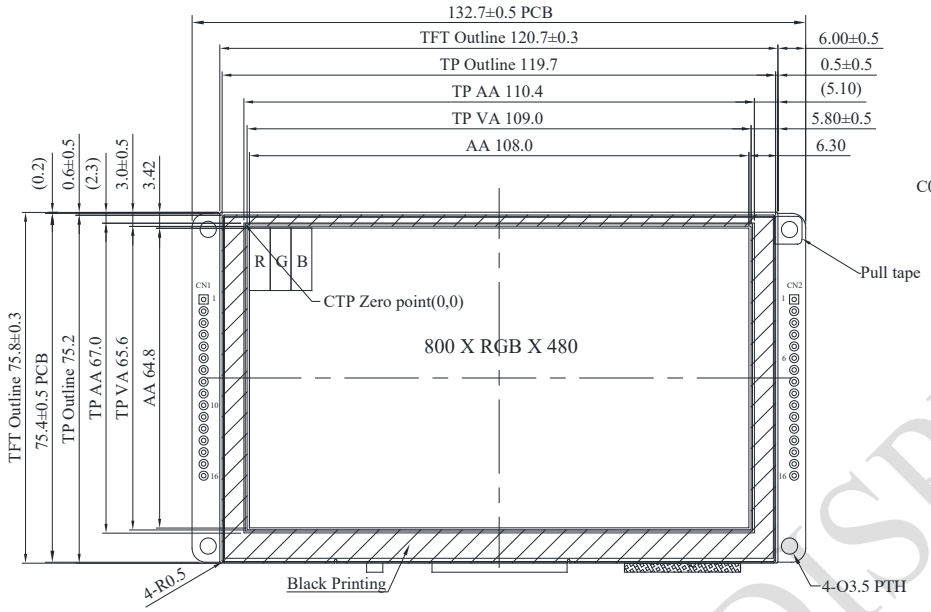
Product information

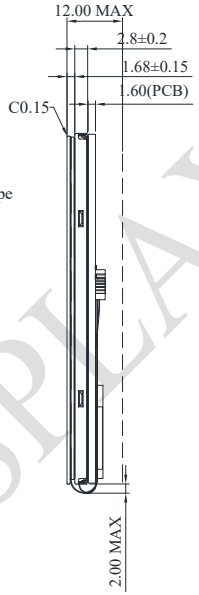
General information

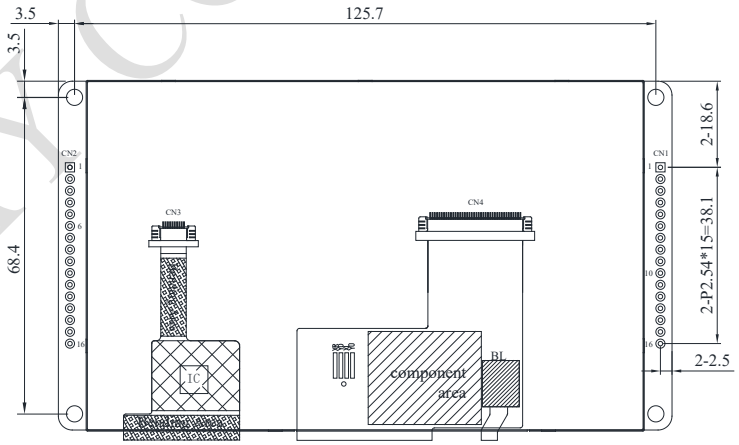
Item	Standard Value	Unit
Operating voltage	5	Vdc
Communication Interface	CAN bus differential ± 3.3	Vpp
MCU	STM32F429	N/A
Flash Memory	16	MB
SDRAM Frequency	90	MHz
LCD display size	5.0	inch
Dot Matrix	800× 3(RGB) × 480	dot
Module dimension	132.7(W) ×75.8(H) ×12.00	mm
Active area	108(W) ×64.8 (H)	mm
Dot pitch	0.135(W) ×0.135(H)	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	5:3	
Touch Panel	With CTP	
Surface	Glare	

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Contour Drawing







1	Lcd Type	TFT
2	View Angle	80/80/80/80
3	Surface	Glare
4	Screen size	5.0"(diagonal)
5	Display format	800 x RGB x 480
6	Operating Temperature	-30°C ~80°C
7	Storage Temperature	-30°C ~80°C
8	Active area	108.0(H) x 64.8(V) mm
9	Pixel pitch	0.135(H) x 0.135(V) mm
10	Color arrangement	RGB-STRIPE
11	Brightness	300min. 400typ. cd/m2
12	CTP IC	ILI2130 or equivalent
13	CTP Resolution	16384*16384

CN1

PIN	SYMBOL
1	+5V
2	GND
3	CAN High
4	CAN Low
5	VDD_5V
6	Reserve
7	Reserve
8	GND
9	NC
10	NC
11	
12	
13	
14	
15	
16	

CN2

PIN	SYMBOL
1	VMCU
2	JTAG_SWCLK
3	GND
4	JTAG_SWDIO
5	NRST
6	GND
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

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

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Absolute Maximum Ratings

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

Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	VCC	4.75	5	5.25	V
Supply Current	ICC		410		mA

BOM

Item	Description
LCM	WF50FTWAGDNG0#
PCBA	SV10005R000FA00N0109

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Interface

CN1 definition:

Pin	Symbol	Function	Remark
1	+5V	Power supply 5V input	Input
2	GND	Power supply GND input	Input
3	CAN_High	CAN bus D+	I/O
4	CAN_Low	CAN bus D-	I/O
5	VDD_5V	5V output for USART interface	Output
6	USART1_RX	USART RX interface(Reserve)	Reserve
7	USART1_TX	USART TX interface(Reserve)	Reserve
8	GND	GND for USART interface	Output
9-16	NC	--	-

CN2 definition:

Pin	Symbol	Function	Remark
1	VMCU	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
7-16	NC	--	-

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