SMART DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODEL NO. : WL0F00050000FGFAASA00-FC

APPROVED BY: (FOR CUSTOMER USE ONLY)	

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
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VERSION	DATE	REVISED PAGE NO.	SUMMARY
0	2024/09/02		First issue

Summary

5 Inch Smart Display (UART series) Feature

1. Input voltage dynamic range 5V to 28V, typical voltage 12V.
2. Self-testing after booting function.
3. UART communication interface.
4. Supports UART protocol, default baud rate at 115200Kbps.
5. Built in 16M 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 UART Dongle), MCU, Raspberry Pi (with PiCAN2).
9. GPIO PIN support.

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Product information

General information

Item	Standard Value	Unit
Operating voltage	8V~28V dynamic	Vdc
Communication Interface	UART	--
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 White, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	15:9	
With /Without TP	With CTP	
Surface	Glare	

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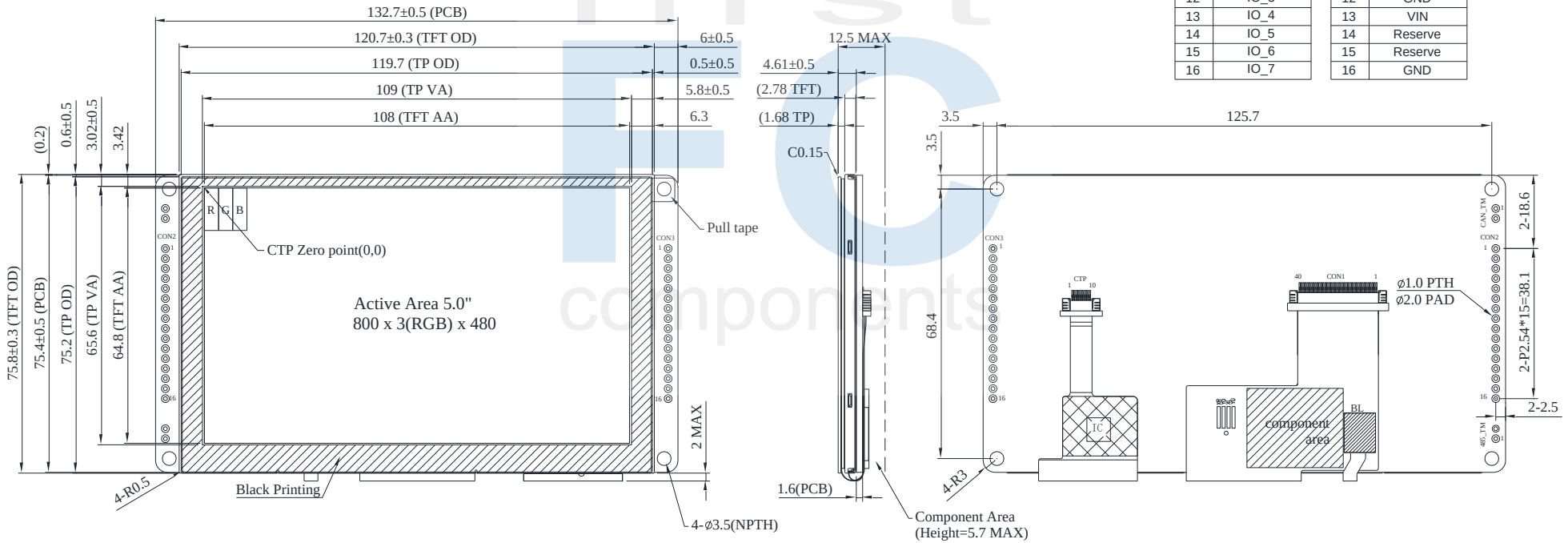
Contour Drawing

CON3

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

CON2

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



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	-30	—	+80	℃

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above
1. Temp. ≦60℃, 90% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 90% RH at 60℃

Electrical Characteristics

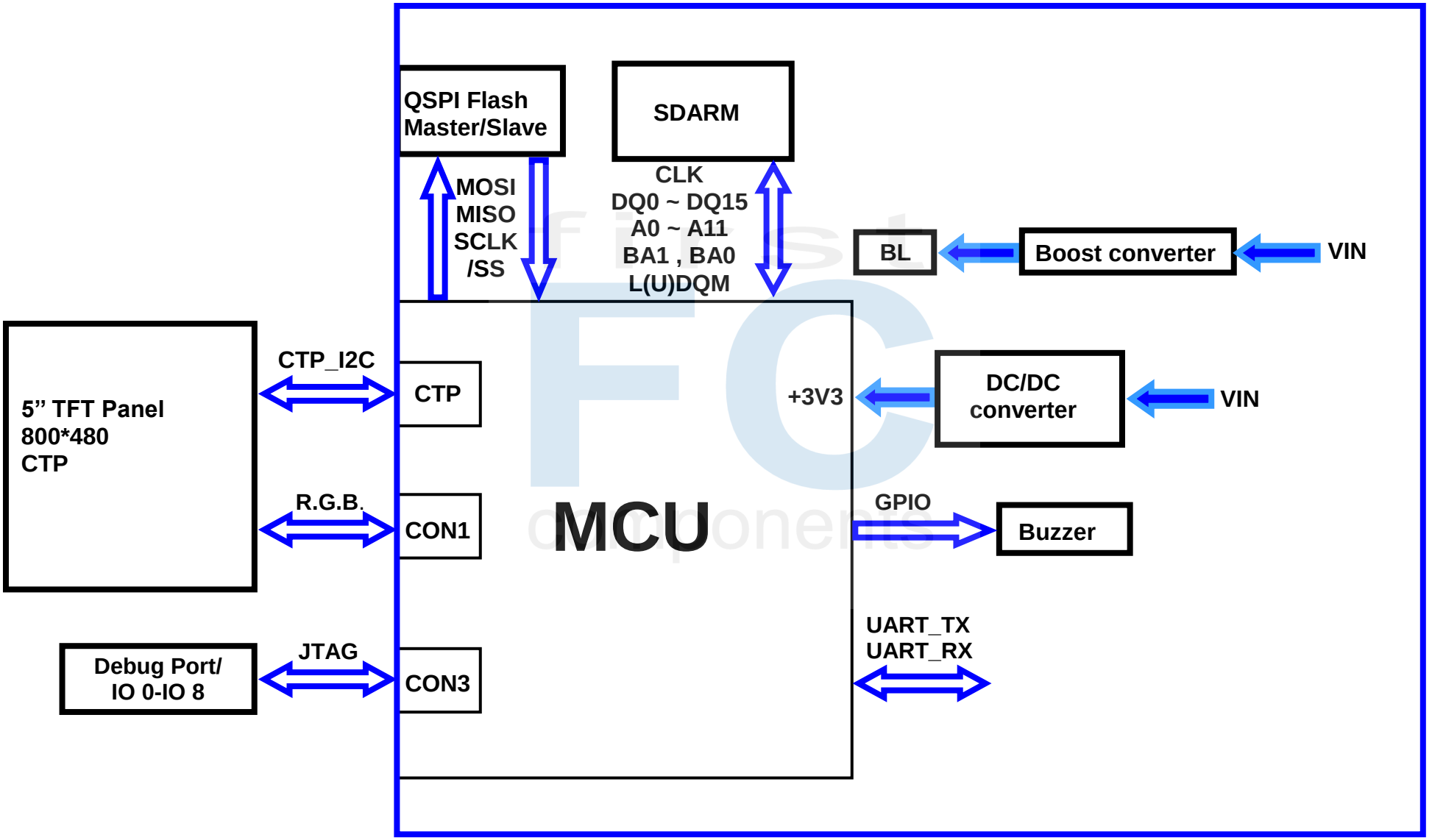
Item	Symbol	Min	Typ	Max	Unit	Note
Supply Voltage	VCC	5	12	28	V	
Supply Current	ICC	610	240	110	mA	
I/O pin Voltage	--	--	--	3.3	V	Note 1

Note1: Exceed 3.3V may cause MCU damage.

BOM

Item	Description	Remark
LCM	WF50-800480FD#0PW3-FC	
PCBA	SV10005R000FG00N0102	

Block diagram



Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply 5V to 28V input	Input
2	GND	Power supply GND input	Input
3	Reserve	-	-
4	Reserve	-	-
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	UART_RX	UART RX interface	I/O
11	UART_TX	UART TX interface	I/O
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

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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

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