SMART DISPLAY SPECIFICATION



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SPECIFICATION

MODEL NO. : WL0F0007000A8GFAASA01-FC

Summary

7 Inch Smart Display (UART series) Features

1. +12V power supply input with 8V to 35V dynamic range power input, the power consumption is around 6 Watt.
2. Self-testing after booting function.
3. UART communication interface.
4. Supports Proprietary UART protocol, default baud rate at 115200Kbps.
5. Built in 32MB 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.
9. GPIO PIN support with 3.3V TTL, max 5.5V tolance.

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Product information

General information

Item	Standard Value	Unit
Operating voltage	8~35	Vdc
Communication Interface	UART	--
MCU	STM32F746	N/A
Flash Memory	32	MB
SDRAM Frequency	100	MHz
LCD display size	7.0	inch
Dot Matrix	1024 x RGB x 600(TFT)	dot
Module dimension	184.1(W) x 103.8(H) x 22(D)	mm
Active area	154.2144 x 85.92	mm
Dot pitch	0.1506 x 0.1432	mm
Brightness	Min:400; Typ:450	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	85/85/85/85	
Aspect Ratio	16:9	
Touch Panel	Projected Capacitive Touch Panel (PCAP)	
Surface	Glare	

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Contour Drawing

CON2	
PIN	SYMBOL
1	VIN
2	GND
3	Reserve
4	Reserve
5	GND
6	GND
7	Reserve
8	Reserve
9	NC
10	UART_RX
11	UART_TX
12	GND
13	VIN
14	Reserve
15	Reserve
16	GND

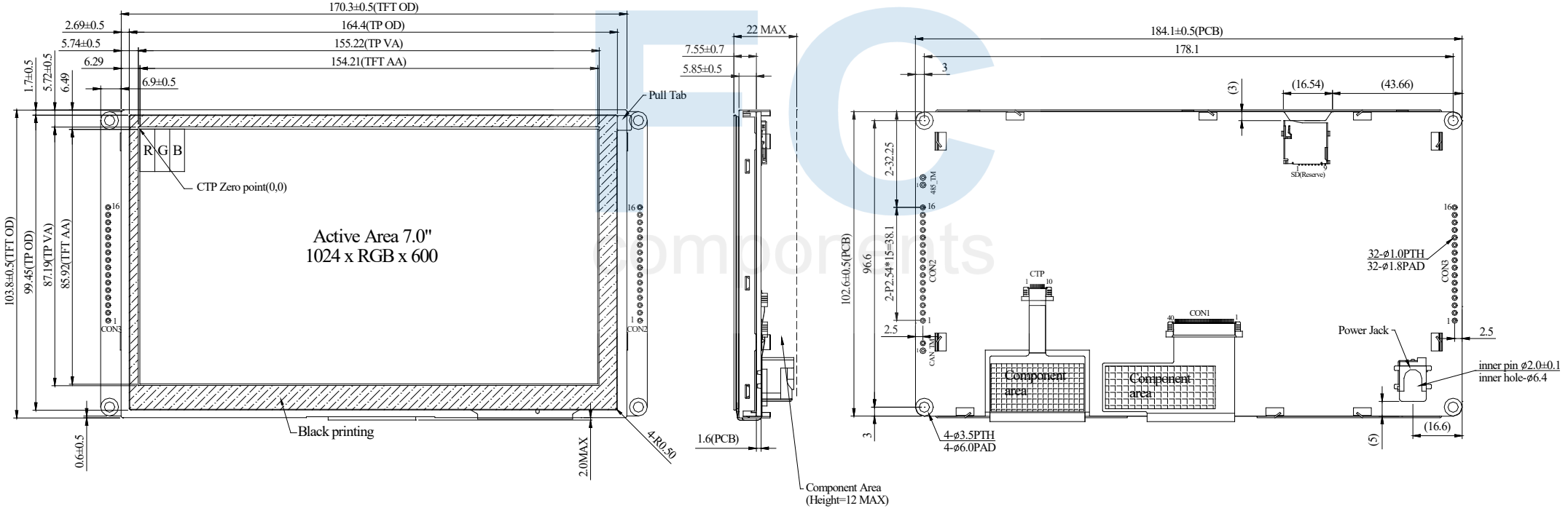
CON3	
PIN	SYMBOL
1	+3V3
2	SWCLK
3	GND
4	SWDIO
5	NRST
6	GND
7	WKUP
8	BOOT0
9	IO_0
10	IO_1
11	IO_2
12	IO_3
13	IO_4
14	IO_5
15	IO_6
16	IO_7

POWER JACK

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GND VIN

(8~35V)



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

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

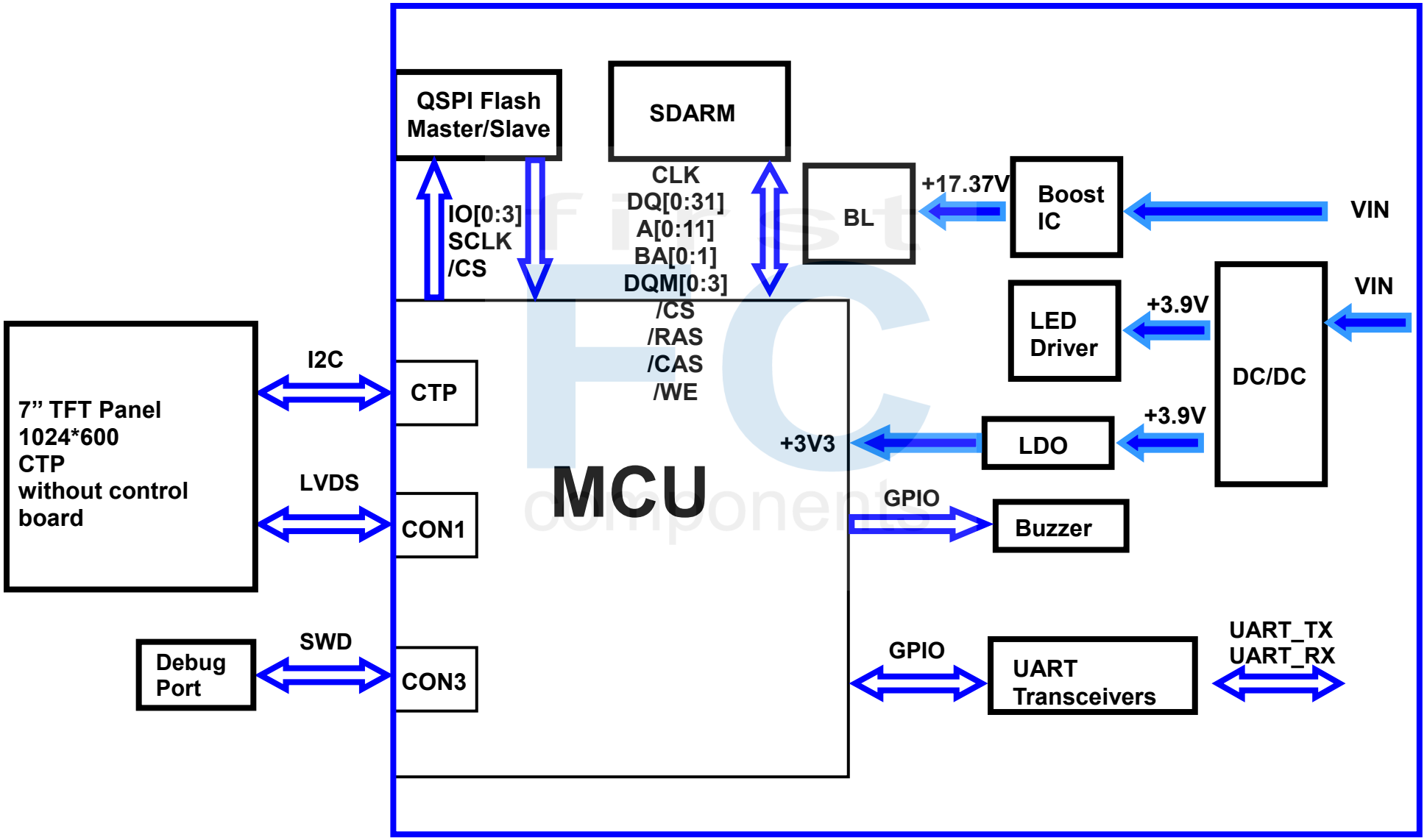
Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VIN	—	8	12	35	V
Supply current	I(mA)	—	—	490	—	mA

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Item	Description
LCM	WF70-1024600A8L#BP3-FC
PCBA	SV10007R00A8C00N0108

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Block diagram



Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power +8V~35V	Input
2	GND	Power GND	--
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 8V to 35V 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	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	Power GND	Output
7	Wkup	WKup,ADC,Timer,Event,I/O	Input
8	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	Input
9	IO_0	ADC,DAC,Timer,Event,I/O @3.3V	I/O
10	IO_1	ADC,Timer,Event,I/O @3.3V	I/O
11	IO_2	ADC,Timer,Event,I/O @3.3V	I/O
12	IO_3	ADC,Timer,Event,I/O @3.3V	I/O
13	IO_4	ADC,Timer,Event,I/O @3.3V	I/O
14	IO_5	ADC,Timer,Event,I/O @3.3V	I/O
15	IO_6	ADC,Timer,Event,I/O @3.3V	I/O
16	IO_7	RST,ADC,Event,I/O @3.3V	I/O

@3.3V : I/O allow below 3.3V input, If exceeding 3.3V may cause MCU damage

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