SMART DISPLAY SPECIFICATION



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SPECIFICATION

MODEL NO. : WL0F0007000A8GDACSA01-FC

Summary

7 Inch Smart Display (RS485 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. RS485 communication interface.
4. Built in 32MB external flash memory to store the font and Object Dictionary Data.
5. Support capacitive touch panel (CTP).
6. Build in buzzer and can be controlled by Master Device.
7. Demo set HOST can be used on multiple platforms, such as Computer (with USB to RS485 Dongle), MCU, Raspberry Pi.
8. GPIO PIN support with 3.3V TTL, max 5.5V tolerance.

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Product information

General information

Item	Standard Value	Unit
Operating voltage	8~35	Vdc
Communication Interface	RS485	--
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
Pixel 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	

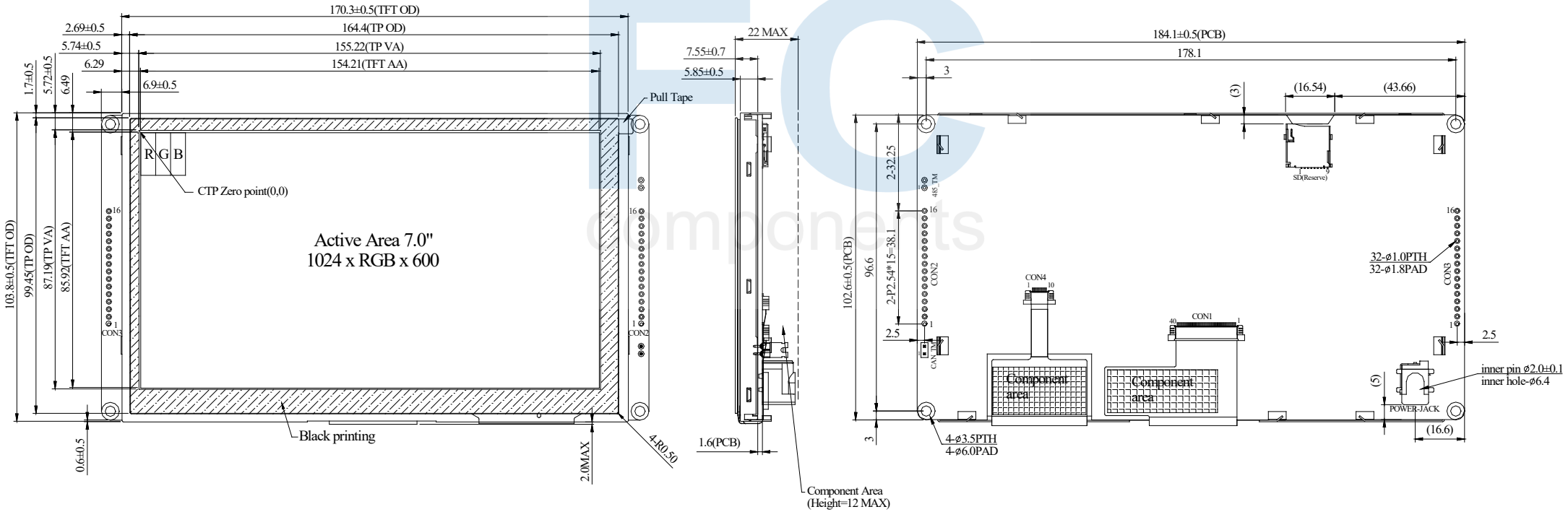
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Contour Drawing

CON2			
PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	NC
2	GND	10	Reserve
3	Reserve	11	Reserve
4	Reserve	12	GND
5	GND	13	VIN
6	GND	14	RS485_B
7	Reserve	15	RS485_A
8	Reserve	16	GND

CON3			
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

POWER JACK
2 — 1
GND VIN
(8~36V)



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

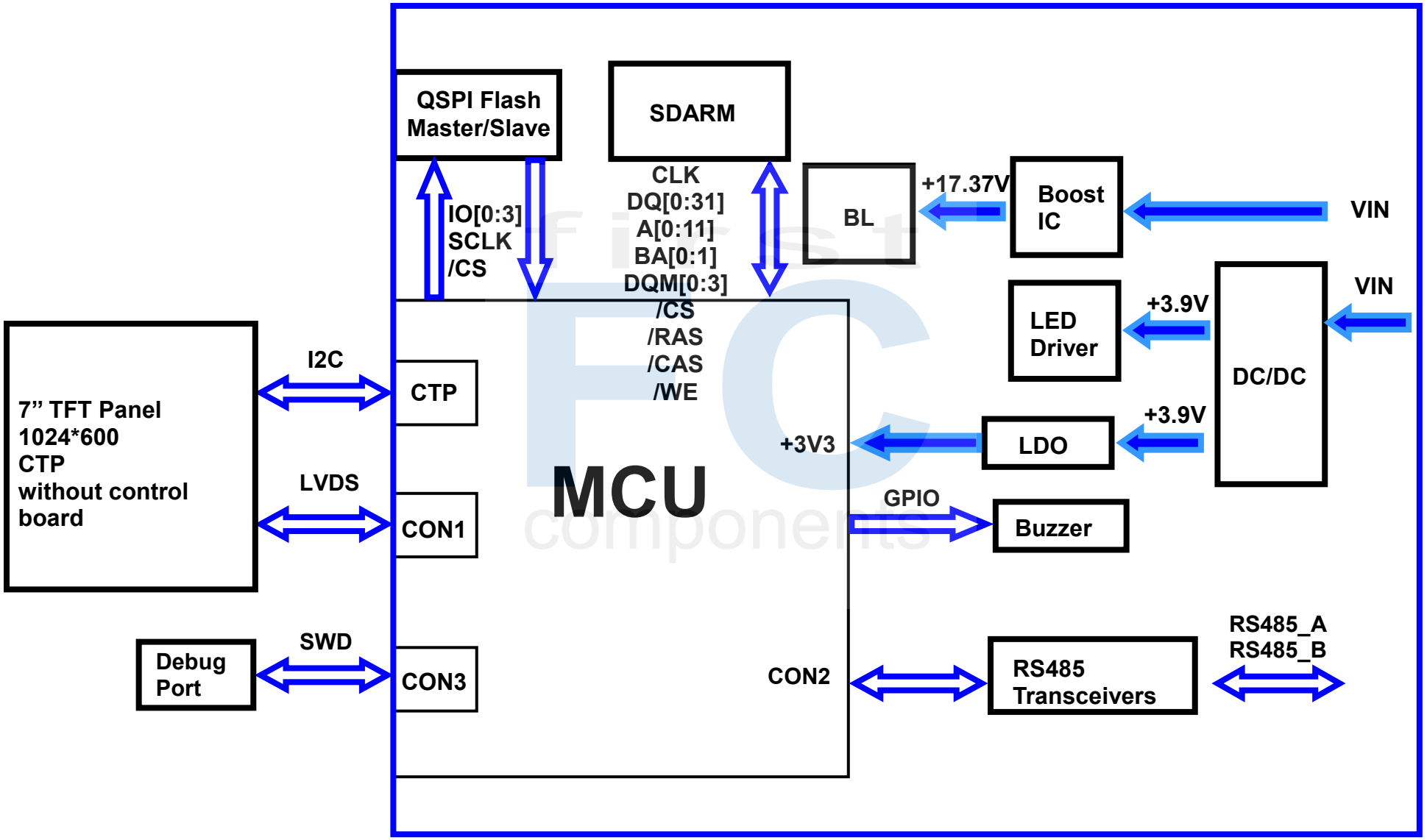
Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VIN	—	8	12	35	V
Supply current	I(mA)	—	—	490	—	mA

BOM

Item	Description
LCM	WF70-1024600A8L#BP3-FC
PCBA	SV10007R00A8C00N0109

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Block diagram



Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply V+	Input
2	GND	Power supply GND input	Input
3	Reserve	_	_
4	Reserve	_	_
5	GND	Power supply GND input	Input
6	GND	Power supply GND input	Input
7	Reserve	_	_
8	Reserve	_	_
9	VBUS	_	_
10	Reserve	UART RX interface(Reserve)	Reserve
11	Reserve	UART TX interface(Reserve)	Reserve
12	GND	GND	GND
13	Reserve	_	_
14	RS485_B	RS485 B	I/O
15	RS485_A	RS485 A	I/O
16	GND	GND	GND

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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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