SMART DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODEL NO. : WL0F0007000A8NDAASA00-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	2024/08/06		First issue

Summary

7 Inch N-TP Smart Display (RS485 series) Features

1. +12V power supply input with 5V to 16V dynamic range power input, the power consumption is around 6 Watt.
2. Self testing after booting function.
3. RS485 communication interface.
4. Built in flash memory, store the font and Object Dictionary Data.
5. Without TP
6. Embedded buzzer controlled by Master Device.
7. HOST can be used on multiple platforms, such as Computer (with USB to RS485 Dongle), MCU, Raspberry Pi (with PiCAN2).

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Product information

General information

Item	Standard Value	Unit
Operating voltage	5~16V	Vdc
Communication Interface	RS485 differential ± 3.3	N/A
MCU	STM32F746 216MHz	N/A
Flash Memory	16	MB
SDRAM Frequency	108	MHz
LCD display size	7.0	inch
Dot Matrix	1024 x RGBx600(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:500; Typ:600	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	85/85/85/85	
Aspect Ratio	16:9	
With /Without TP	Without TP	
Surface	Anti-Glare	

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Contour Drawing

CON3

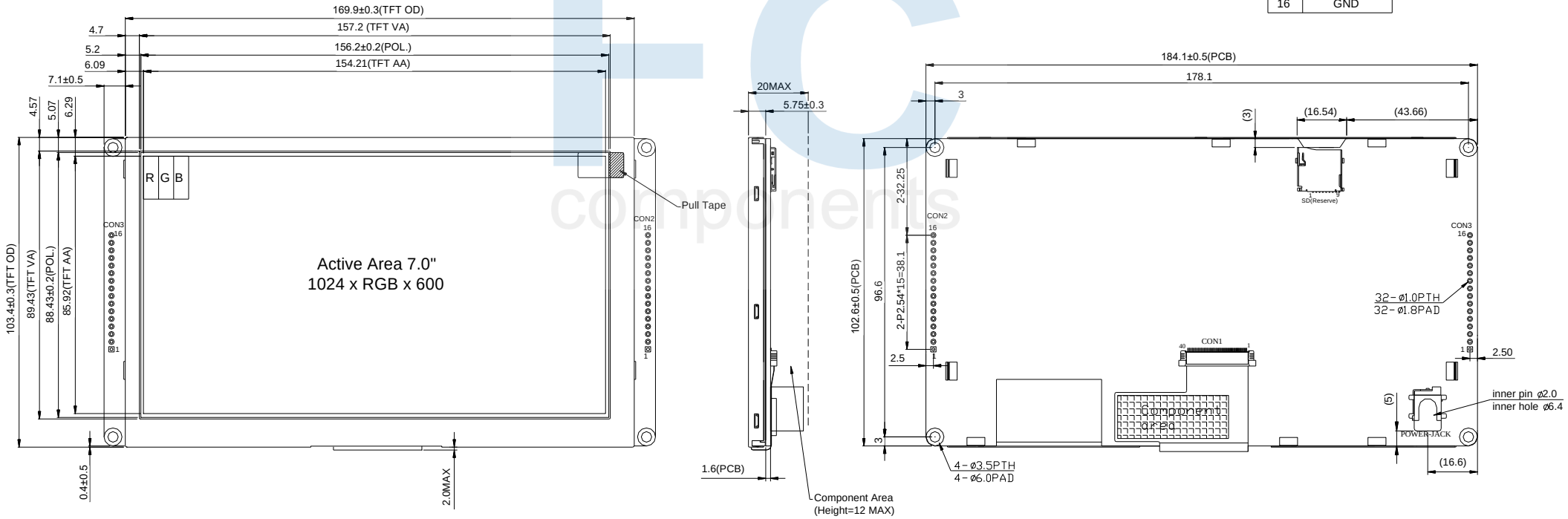
PIN	SYMBOL
1	+3V3
2	SWCLK
3	GND
4	SWDIO
5	NRST
6	GND
7~16	NC

CON2

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

POWER JACK

2 (GND) — 1 (12V)



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	℃

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℃

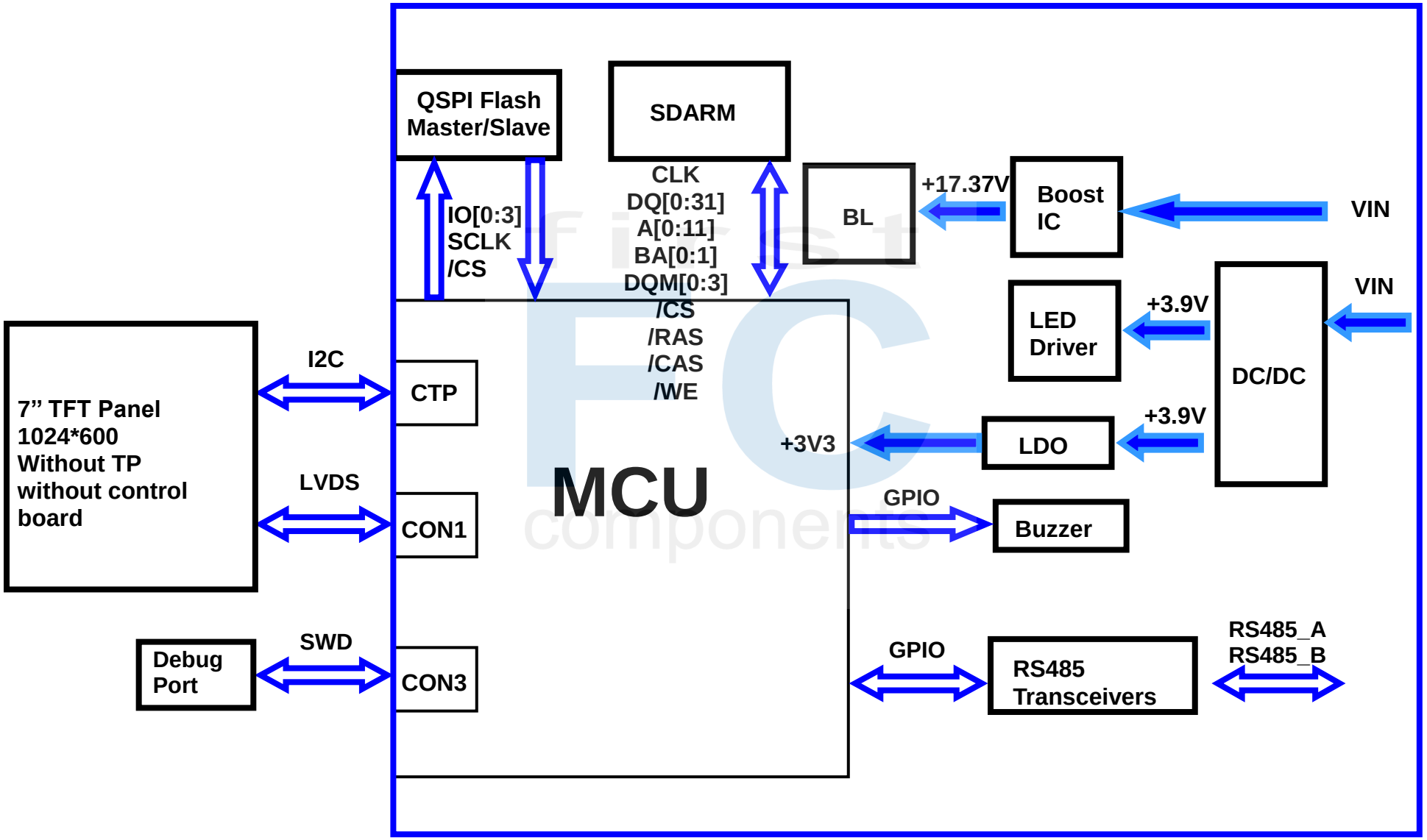
Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VIN	—	5	12	16	V
Supply current	I(mA)	—	—	490	—	mA

BOM

Item	Description	Remark
LCM	WF70-1024600A8L#0P0-FC	
PCBA	SV10007R00AAA00N0116	

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	NC	_	_
8	NC	_	_
9	Reserve	_	_
10	Reserve	UART RX interface(Reserve)	Reserve
11	Reserve	UART TX interface(Reserve)	Reserve
12	GND	GND	GND
13	Reserve	_	_
14	RS485_B	RS485 DATA-	I/O
15	RS485_A	RS485 DATA+	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	GND	Output
7~16	NC	_	_

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