SMART DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.

華凌光電股份有限公司

Represented by:

FIRST Components s.r.l.
www.first-components.com
technical@first-components.com
+39 0332 1888005

SPECIFICATION

CUSTOMER : _____

MODEL NO. : WL0F00043000WNDAASA00-FC

APPROVED BY: (FOR CUSTOMER USE ONLY)	

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
first FC components			

VERSION	DATE	REVISED PAGE NO.	SUMMARY
0	2024/07/30		First issue

2. Summary

4.3 Inch Smart Display (RS485 series) Features

1. DC 5-24V working voltage.
2. Self-testing after booting function.
3. RS485 communication interface with Modbus protocol.
4. Built in flash memory, store the fonts and pictures.
5. Without touch.
6. Embedded buzzer controlled by Master Device.
7. Demo set HOST can be used on multiple platforms, such as Computer (with USB to RS-485 Dongle), MCU.

first FC components

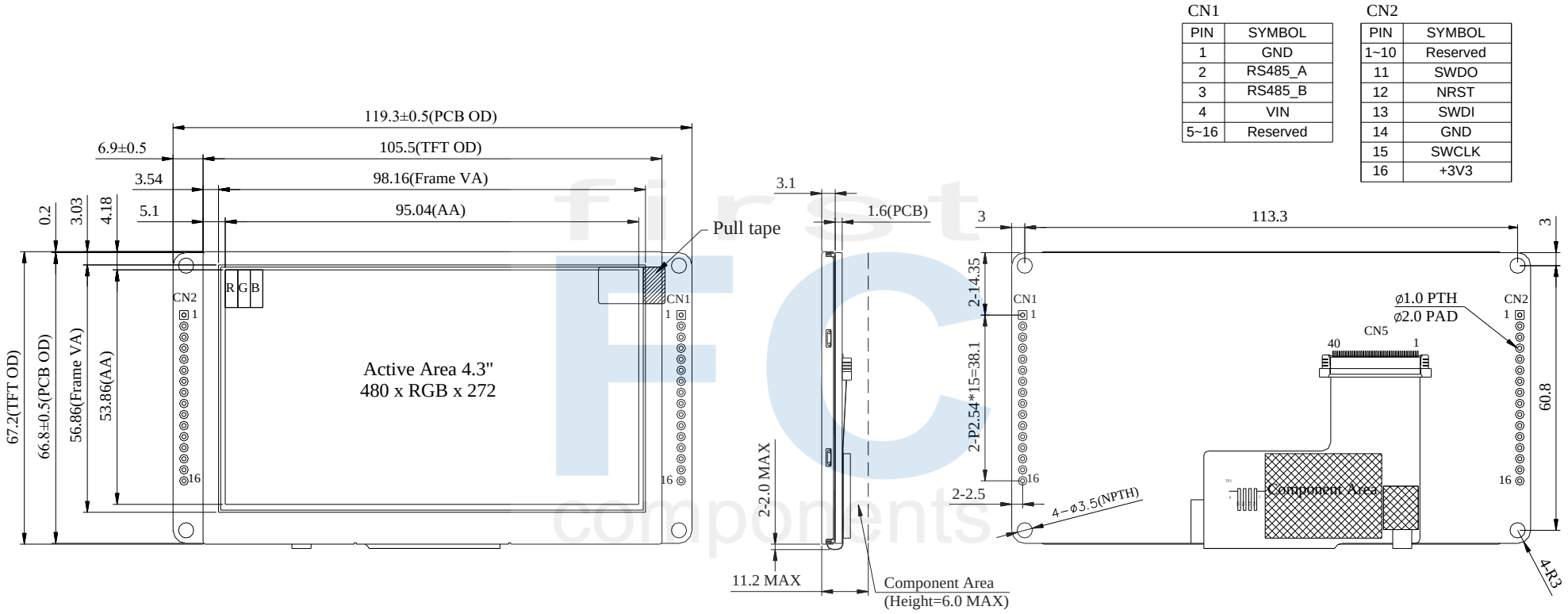
3. Product information

General information

Item	Standard Value	Unit
Operating voltage	5-24	Vdc
Communication Interface	RS485 differential	-
MCU	STM32F750	N/A
Flash Memory	16	MB
SDRAM Frequency	108	Mhz
LCD display size	4.3	inch
Dot Matrix	480 × RGB × 272(TFT)	dots
Module dimension	119.3(W) × 67.2(H) × 11.2(D)	mm
Active area	95.04(W) × 53.856(H)	mm
Pixel pitch	0.198(H) × 0.198(V)	mm
Brightness	Min: 400; Typ: 500	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	16:9	
With /Without TP	Without TP	
Surface	Glare	

first components

4. Contour Drawing



CN1

PIN	SYMBOL
1	GND
2	RS485_A
3	RS485_B
4	VIN
5~16	Reserved

CN2

PIN	SYMBOL
1~10	Reserved
11	SWDO
12	NRST
13	SWDI
14	GND
15	SWCLK
16	+3V3

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

5. 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℃

6. Electrical Characteristics

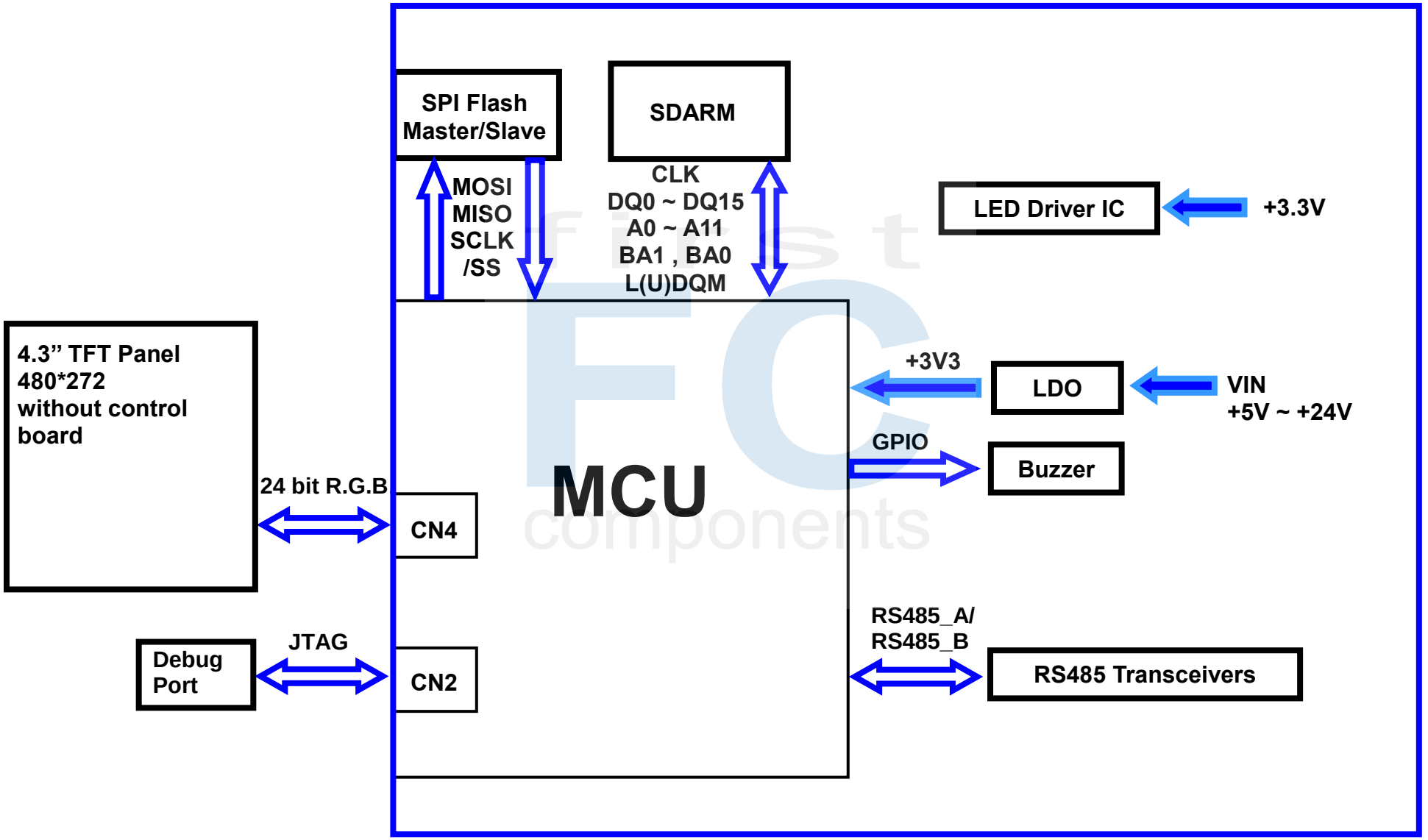
Item	Symbol	Min	Typ	Max	Unit	Remark
Supply Voltage	VCC	5	12	24	V	
Supply Current	ICC	-	170		mA	

Note: A 10uF/50V~100uF/50V electrolytic capacitor must be added to the power supply if the device supply voltage exceeds 12V.

7. BOM

Item	Description	Remark
LCM	WF43-480272WD#0PW0-FC	
PCBA	SV10004R300WA00N0111	

8. Block diagram



9. Interface

CN1 definition:

Pin	Symbol	Function	Remark
1	GND	GND	Output
2	RS485+	RS485 D+	I/O
3	RS485-	RS485 D-	I/O
4	+5V	VIN	Input
5	GND	GND	Output
6-7	NC	--	--
8	+5V	VIN	Input
9-10	NC	--	--
11-12	GND	GND	Output
13-14	NC	--	--
15	GND	Power GND	Input
16	+5V	Power +5V ~ +24V	Input

CN2 definition:

Pin	Symbol	Function	Remark
1-9	NC	--	--
10	GND	GND	Output
11	JTAG_SWDO	Data pin for JTAG interface	I/O
12	NRST	Reset pin for JTAG interface	Input
13	JTAG_SWDI	Data pin for JTAG interface	I/O
14	GND	GND for JTAG interface	Output
15	JTAG_SWCLK	CLK pin for JTAG interface	Input
16	VDD3V	3.3V power for JTAG interface	Output

first components