



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



SPECIFICATION

MODEL NO. : WLOF00039000FGDAASA00

Summary

3.9 Inch Smart Display Feature

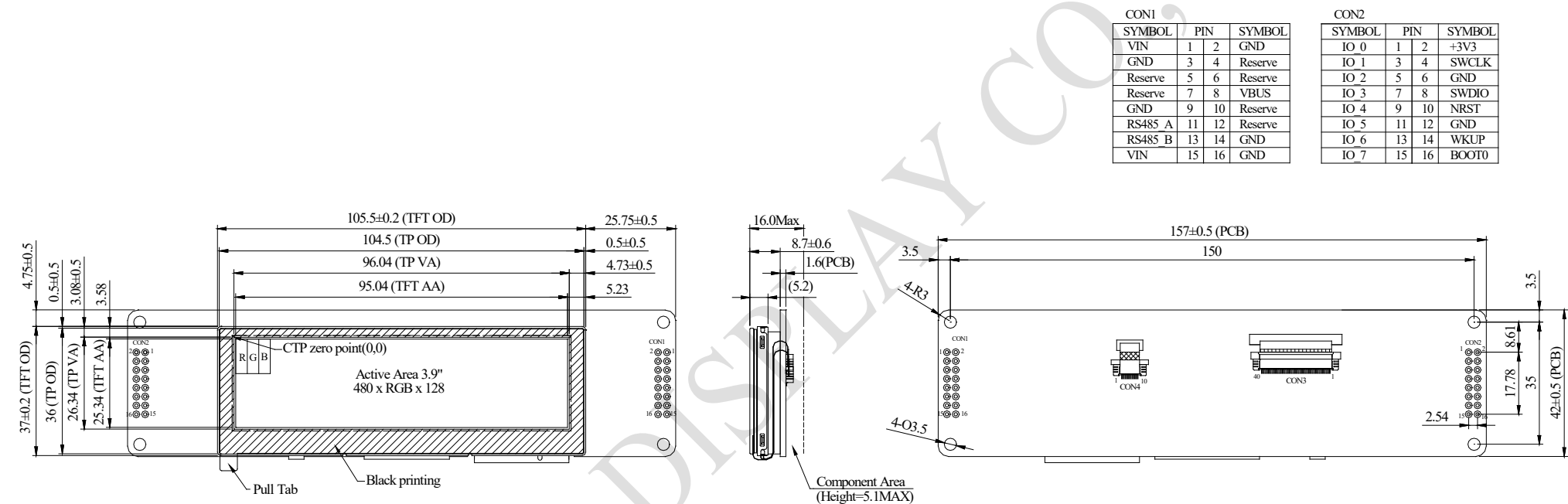
1. Input voltage dynamic range 5V to 48V, typical voltage 5V.
2. Self-testing after booting function.
3. RS485 communication interface.
4. Built in flash memory 16MB, store the font and Object Dictionary Data.
5. Support capacitive touch panel (CTP).
6. Embedded buzzer controlled by Master Device.
7. Demo set HOST can be used on multiple platforms, such as Computer (with USB to RS485 Dongle), MCU, Raspberry Pi.
8. GPIO PIN support

Product information

General information

Item	Standard Value	Unit
Operating voltage	5V~ 48V (dynamic)	Vdc
Communication Interface	RS485	-
MCU	STM32F750	N/A
Flash Memory	16	MB
LCD display size	3.9	inch
Dot Matrix	480x128 x RGB (TFT)	dot
Module dimension	157.0(W) x 42.0(H) x 16	mm
Active area	95.04 x 25.34	mm
Pixel pitch	0.198 x 0.198	mm
Brightness	Min: 700; Typ: 800	cd/m ²
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	85/85/85/85	
Aspect Ratio	Bar Type	
Touch Panel	Projected Capacitive Touch Panel	
Surface	Glare	

Contour Drawing



The non-specified tolerance of dimension is $\pm 0.3 \text{ mm}$.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-40	—	+90	°C

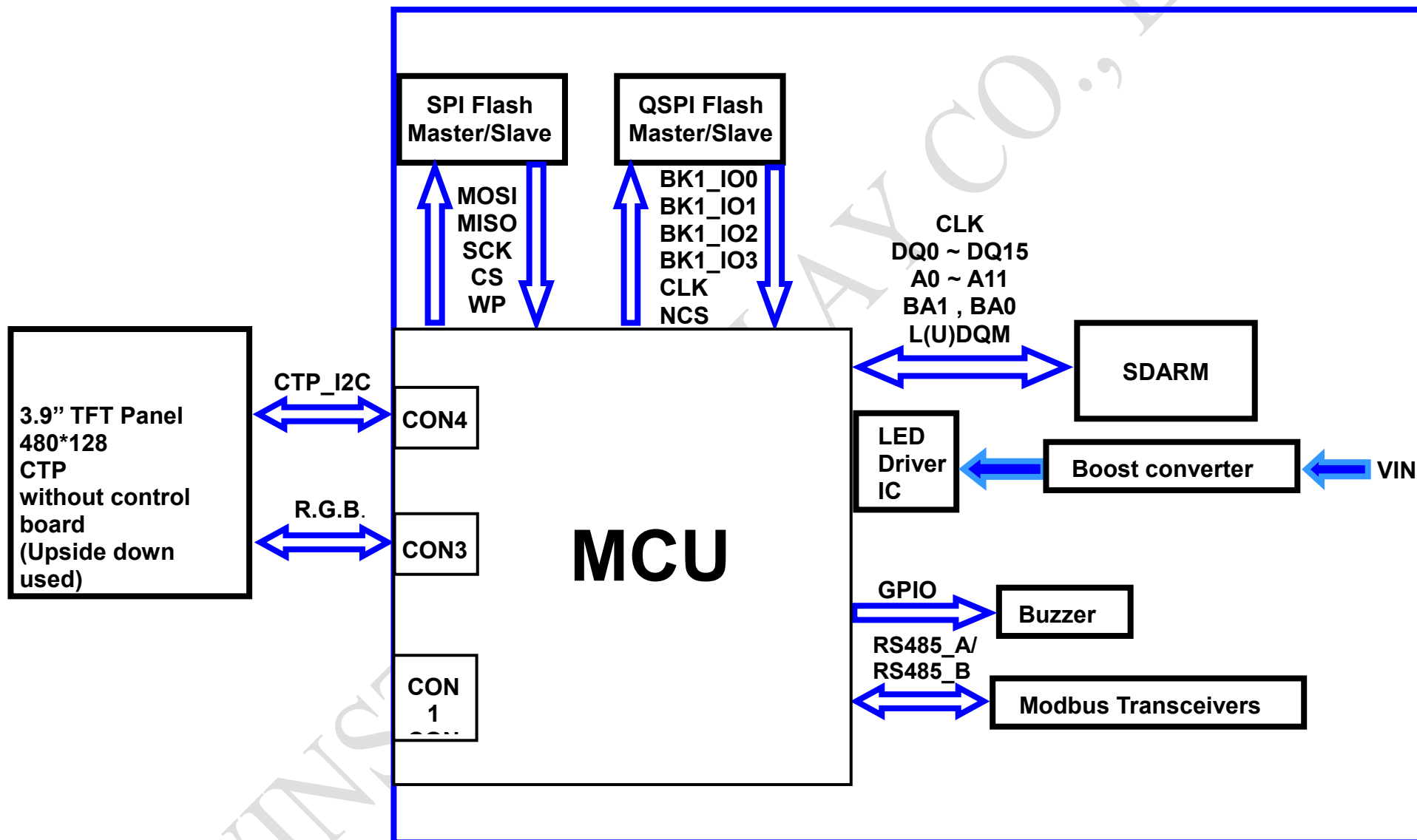
Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For Analog	VCC	5	5	48	V
Interface Operation Voltage	ICC	420	460	50	mA

BOM

Item	Description
LCM	WF39FSWASDNG0#
PCBA	SV10003R900FA00N0101

Block diagram



Interface

CON1 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply 5V to 48V input	Input
2	GND	Power supply GND input	GND
3	GND	Power supply GND input	GND
4	Reserve	Differential signal D-	I/O
5	Reserve	-	-
6	Reserve	Differential signal D+	I/O
7	Reserve	-	-
8	VBUS	5V output for UART interface	Output
9	GND	Power supply GND input	GND
10	Reserve	UART1_RX	I/O
11	RS485_A	RS485 DATA+	I/O
12	Reserve	UART1_TX	I/O
13	RS485_B	RS485 DATA-	I/O
14	GND	Power supply GND input	GND
15	VIN	Power supply 5V to 48V input	Input
16	GND	Power supply GND input	GND

I/O allow below 3.3V input. If exceeding 3.3V may cause MCU damage.

CON2 definition:

Pin	Symbol	Function	Remark
1	IO_0	ADC,DAC,Timer,Event,I/O	TTL signal voltage is 3.3V
2	+3V3	3.3V power for JTAG interface	Output
3	IO_1	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
4	SWCLK	CLK pin for JTAG interface	Input
5	IO_2	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
6	GND	GND	Output
7	IO_3	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
8	SWDIO	Data pin for JTAG interface	I/O
9	IO_4	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
10	NRST	Reset pin for JTAG interface	Input
11	IO_5	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
12	GND	GND	Output
13	IO_6	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
14	WKUP	WKup,ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
15	IO_7	RST,ADC,Event,I/O	TTL signal voltage is 3.3V
16	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	TTL signal voltage is 3.3V

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