



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



SPECIFICATION

MODEL NO. : WLOF00039000FGFAASA00

Summary

3.9 Inch Smart Display Feature

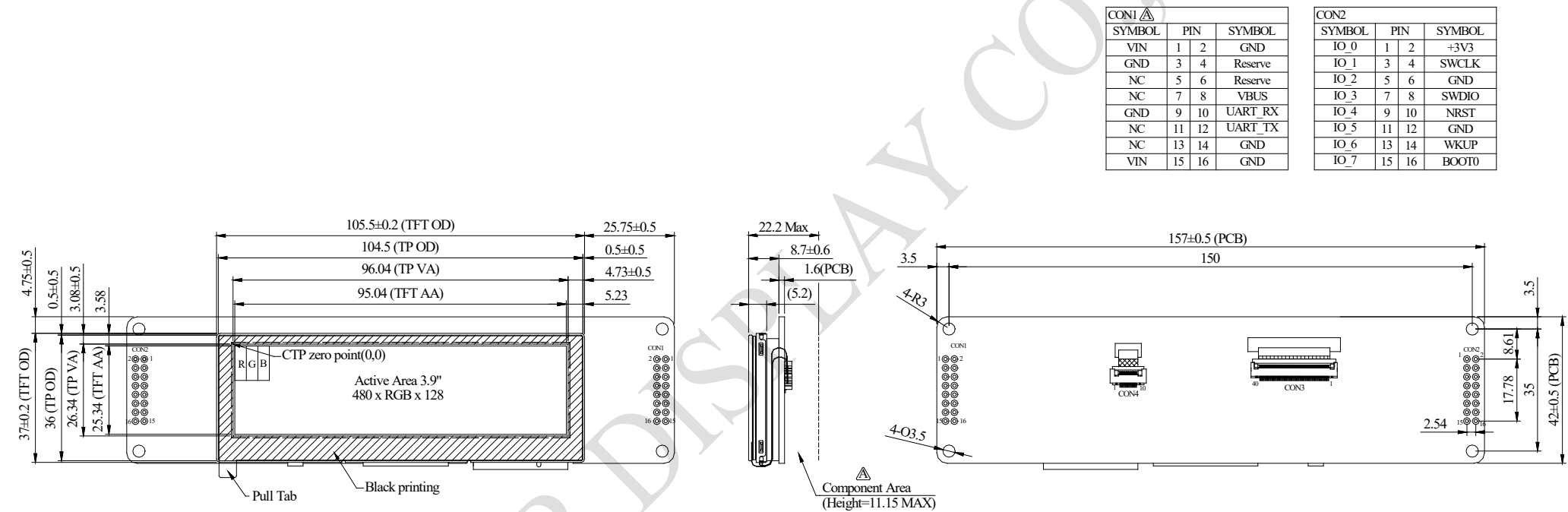
1. Input voltage dynamic range 5V to 48V, typical voltage 5V.
2. Self-testing after booting function.
3. UART communication interface.
4. Supports Proprietary UART protocol, default baud rate at 115200Kbps.
5. Built in flash memory 16MB, store the font and Object Dictionary Data.
6. Support capacitive 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

Product information

General information

Item	Standard Value	Unit
Operating voltage	5V~ 48V dynamic	Vdc
Communication Interface	UART	-
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 ±0.3mm.

Absolute Maximum Ratings

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

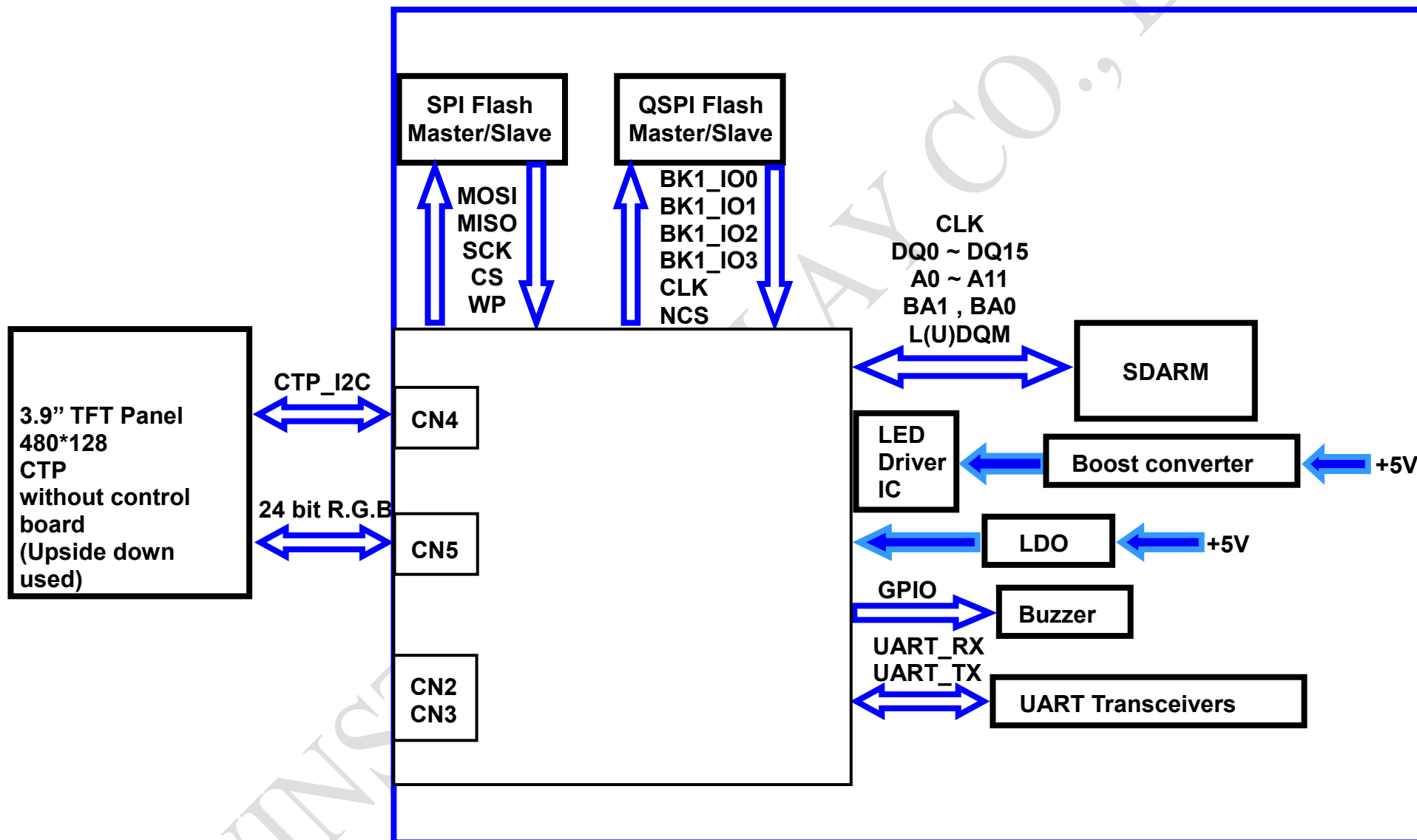
Electrical Characteristics

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	SV10003R900FA00N0102

Block diagram



Interface

CN1 definition:

Pin	Symbol	Function	Remark
1	VIN	Power +5V~48V	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	UART_RX	UART RX interface	I/O
11	Reserve	Power supply GND input	GND
12	UART_TX	UART TX interface	I/O
13	Reserve	-	-
14	GND	UART5_TX	I/O
15	VIN	-	-
16	Reserve	UART5_RX	I/O

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

CN2 definition:

Pin	Symbol	Function	Remark
1	IO_0	UART6_TX	I/O
2	+3V3	Power supply 3V3 input	Input
3	IO_1	UART6_RX	I/O
4	SWCLK	CLK pin for JTAG interface	Input
5	IO_2	-	-
6	GND	Power supply GND input	GND
7	IO_3	-	-
8	SWDIO	Data pin for JTAG interface	I/O
9	IO_4	-	-
10	NRST	Reset pin for JTAG interface	Input
11	IO_5	-	-
12	GND	Wire trace Output for JTAG interface	I/O
13	IO_6	Power supply GND input	GND
14	WKUP	Power supply GND input	GND
15	IO_7	Power supply 5V output	Output
16	BOOT0	Buzz	Output

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