SMART DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.

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SPECIFICATION

CUSTOMER : _____

MODEL NO. : WL0F00050000FNAAESA01-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	2025/04/18		First issue

Product information

General information

Item	Standard Value	Unit
Operating voltage	12	Vdc
Communication Interface	CAN Bus	--
MCU	STM32F750	N/A
Flash Memory	16	MB
LCD display size	5.0	inch
Dot Matrix	800× 3(RGB) × 480	dot
Module dimension	132.7(W) ×75.8(H) ×10.8 (D)	mm
Active area	108(W) ×64.8 (H)	mm
Pixel pitch	0.135(W) ×0.135(H)	mm
Brightness	Min: 850; Typ: 1000	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	15:9	
With /Without TP	Without TP	
Surface	Anti-Glare	

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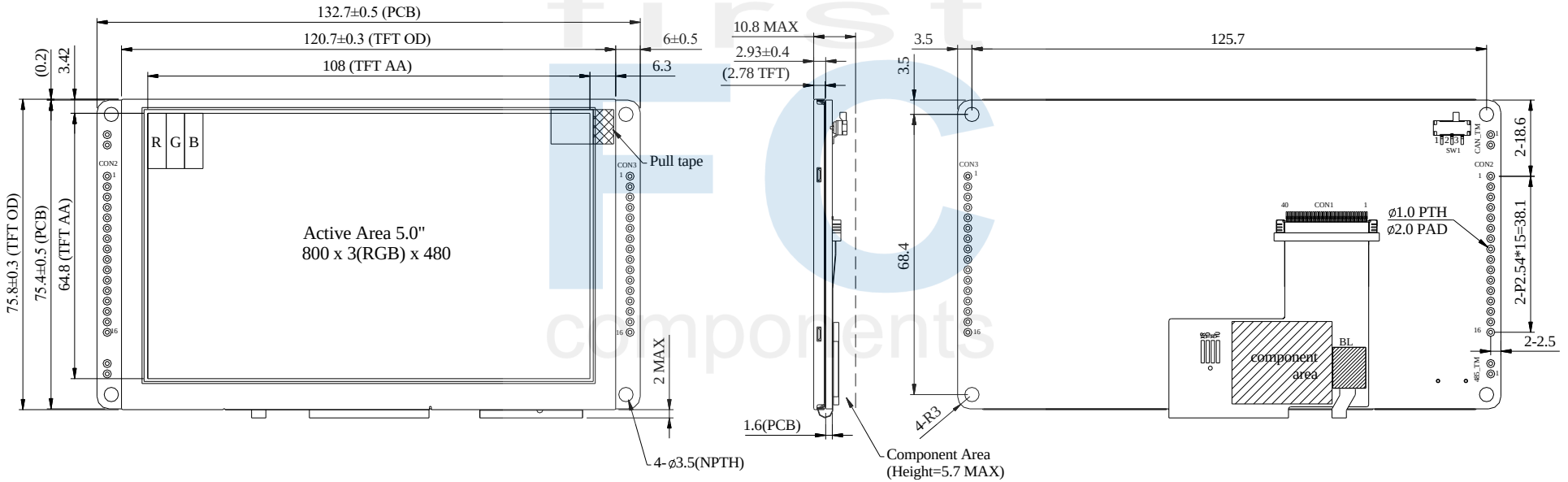
Contour Drawing

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

CON2

PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	VBUS
2	GND	10	RESERVE
3	CAN_H	11	RESERVE
4	CAN_L	12	GND
5	GND	13	VIN
6	GND	14	RESERVE
7	RESERVE	15	RESERVE
8	RESERVE	16	GND



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

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℃

Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit	Note
Supply Voltage	VCC	5	12	28	V	
Supply Current	ICC	710	270	120	mA	
I/O pin Voltage	--	--	--	3.3	V	Note 1

Note1: Exceed 3.3V may cause MCU damage.

BOM

Item	Description	Remark
LCM	WF50-800480FD#0SPW0-FC	
PCBA	SV10005R000FG00N0105	

Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply 5V to 28V input	Input
2	GND	Power supply GND input	Input
3	CAN_H	CAN bus D+	I/O
4	CAN_L	CAN bus D-	I/O
5	GND	Power supply GND input	GND
6	GND	Power supply GND input	GND
7	Reserve	-	-
8	Reserve	-	-
9	VBUS	Power supply 5V input	Input
10	Reserve	-	-
11	Reserve	-	-
12	GND	Power supply GND input	Input
13	VIN	Power supply 5V to 28V input	Input
14	Reserve	-	-
15	Reserve	-	-
16	GND	Power supply GND input	Input

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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	WKUP	WKup,ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
8	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	TTL signal voltage is 3.3V
9	IO0	ADC,DAC,Timer,Event,I/O	TTL signal voltage is 3.3V
10	IO1	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
11	IO2	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
12	IO3	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
13	IO4	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
14	IO5	ADC,Timer,Event,I/O	TTL signal voltage is 3.3V
15	IO6	RST,Timer,Event,I/O	TTL signal voltage is 3.3V
16	IO7	RST,ADC,Event,I/O	TTL signal voltage is 3.3V

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