SMART DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODEL NO. : WL0F00035000XNFAASA00-FC

APPROVED BY: (FOR CUSTOMER USE ONLY)	

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
first FC components		Leo Liu	Debby Hsu

VERSION	DATE	REVISED PAGE NO.	SUMMARY
0	2025/04/09		First issue

3. Product information

General information

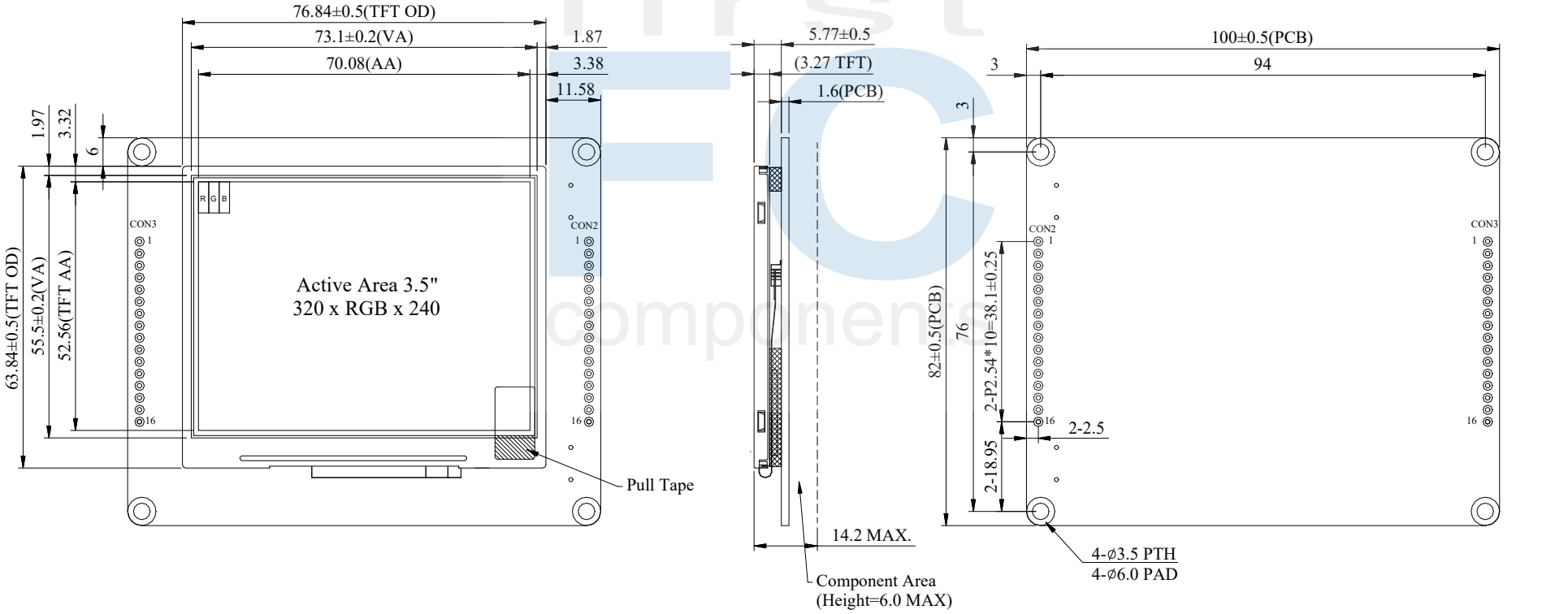
Item	Standard Value	Unit
Operating voltage	5 ~ 28	Vdc
Communication Interface	UART	--
MCU	STM32F750	N/A
Flash ROM	16	MB
SDRAM	8	MB
LCD display size	3.5	inch
Dot Matrix	320× RGB × 240	dots
Module dimension	100(W) x 82(H) x 15.8(D)	mm
Active area	70.08(W) x 52.56(H)	mm
Pixel pitch	0.219 x 0.219	mm
Brightness	Min: 1000	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	Wide View	
Aspect Ratio	4:3	
With /Without TP	Without TP	
Surface	Glare	

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4. Contour Drawing

CON2			
PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	VBUS
2	GND	10	UART_RX
3	Reserve	11	UART_TX
4	Reserve	12	GND
5	GND	13	VIN
6	GND	14	Reserve
7	Reserve	15	Reserve
8	Reserve	16	GND

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



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

5. Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit	Remark
Operating Temperature	TOP	-30	—	+85	℃	
Storage Temperature	TST	-40	—	+85	℃	

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above
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	VIN	5	12	28	V	
Supply Current	ICC	-	150	-	mA	
I/O pin Voltage	--	--	--	3.3	V	Note 1

Note1: I/O allow below 3.3V input, If exceeding 3.3V may cause MCU damage.

7. BOM

Item	Description	Remark
LCM	WF35-320240XD#0SPW0-FC	
PCBA	SV10003R500XA00N0105	

9. Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power +5V~28V	Input
2	GND	Power GND	--
3	Reserve	-	-
4	Reserve	-	-
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	UART_RX	UART RX interface	I/O
11	UART_TX	UART TX interface	I/O
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	--
4	SWDIO	Data pin for JTAG interface	I/O
5	NRST	Reset pin for JTAG interface	Input
6	GND	Power GND	--
7	WKUP	WKup,ADC,Timer,Event,I/O	Input
8	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	Input
9	IO_0	ADC,DAC,Timer,Event,I/O @3.3V	I/O
10	IO_1	ADC,Timer,Event,I/O @3.3V	I/O
11	IO_2	ADC,Timer,Event,I/O @3.3V	I/O
12	IO_3	RST,Timer,Event,I/O @3.3V	I/O
13	IO_4	RST,Timer,Event,I/O @3.3V	I/O
14	IO_5	ADC,Timer,Event,I/O @3.3V	I/O
15	IO_6	RST,Timer,Event,I/O @3.3V	I/O
16	IO_7	RST,ADC,Event,I/O @3.3V	I/O

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

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