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. : WL0F0007000A8GFADSA01-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	2025/11/26		First issue

Product information

General information

Item	Standard Value	Unit
Operating voltage	8~35	Vdc
Communication Interface	UART	--
MCU	STM32F746	N/A
Flash Memory	32	MB
SDRAM Memory	16	MB
LCD display size	7.0	inch
Dot Matrix	1024 x RGBx600(TFT)	dot
Module dimension	184.1(W) x 103.8(H) x 22(D)	mm
Active area	154.2144 x 85.92	mm
Pixel pitch	0.1506 x 0.1432	mm
Brightness	Min:400; Typ:450	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	85/85/85/85	
Aspect Ratio	16:9	
With /Without TP	With CTP	
Surface	Glare	

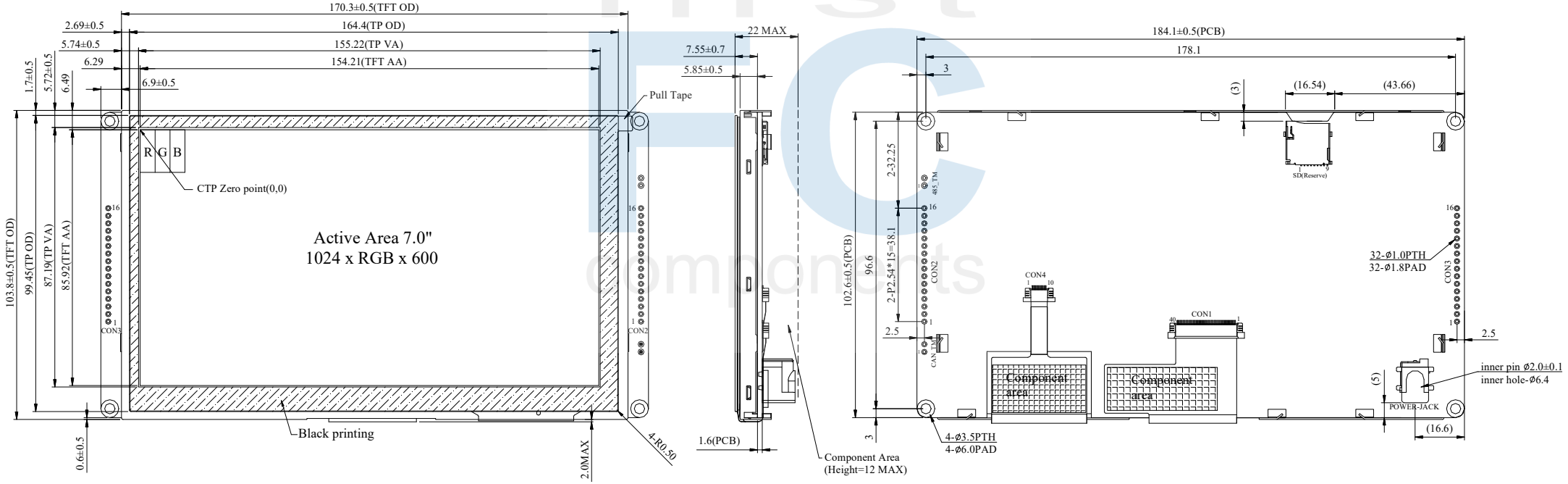
first FC components

Contour Drawing

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

CON3	
PIN	SYMBOL
1	+3V3
2	SWCLK
3	GND
4	SWDIO
5	NRST
6	GND
7	WKUP
8	BOOT0
9	IO_0
10	IO_1
11	IO_2
12	IO_3
13	IO_4
14	IO_5
15	IO_6
16	IO_7

POWER JACK
2 — ◉ — 1
GND VIN
(8~35V)



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

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
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	Condition	Min	Typ	Max	Unit
Supply Voltage	VIN	—	8	12	35	V
Operating current	I(mA)	—	—	520	—	mA

BOM

Item	Description	Remark
LCM	WF70-1024600A8L#BP3-FC	
PCBA	SV10007R00A8K00N0109	

Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power supply GND input	Input
2	GND	Power supply 8V to 35V input	Input
3	Reserve	-	
4	Reserve	-	
5	GND	Power supply GND input	Input
6	GND	Power supply GND input	Input
7	Reserve	-	
8	Reserve	-	
9	NC	-	
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 8V to 35V input	Input
14	Reserve	-	
15	Reserve	-	
16	GND	Power supply GND input	Input

first components

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	Power GND	Output
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	ADC,Timer,Event,I/O @3.3V	I/O
13	IO_4	ADC,Timer,Event,I/O @3.3V	I/O
14	IO_5	ADC,Timer,Event,I/O @3.3V	I/O
15	IO_6	ADC,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

first components