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. : WL0F0007000A8GDADSA02-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	2025/11/28		First issue

Product information

General information

Item	Standard Value	Unit
Operating voltage	8~35	Vdc
Communication Interface	RS485	--
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

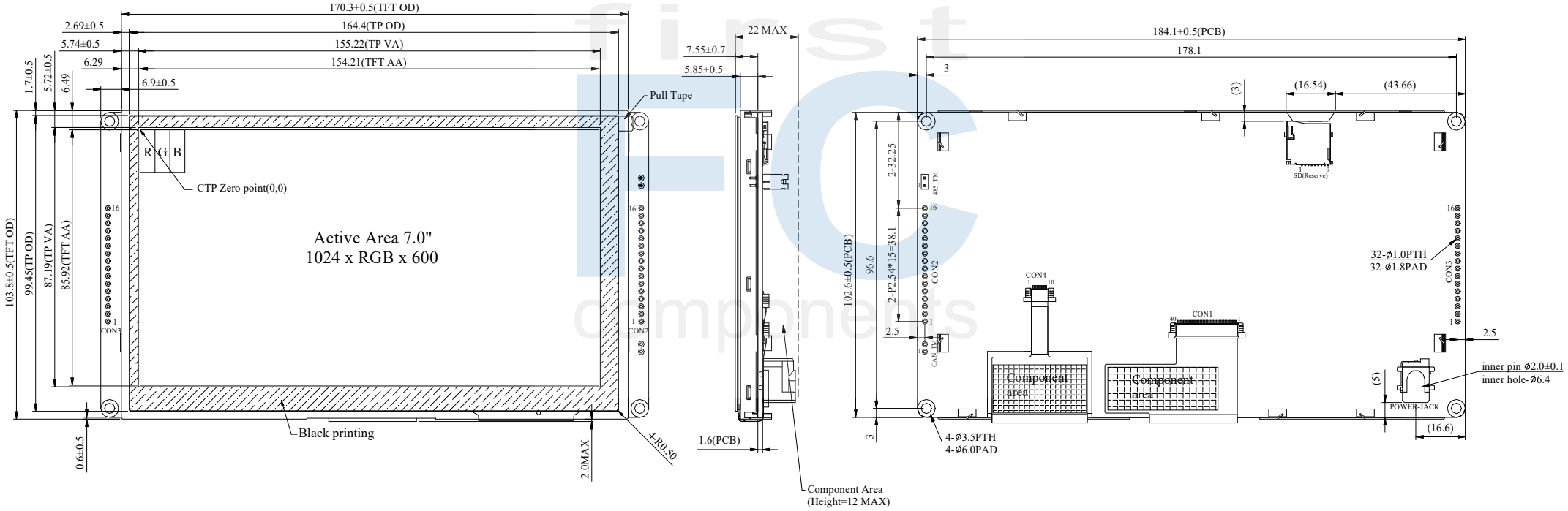
POWER JACK

2 — ◉ — 1

GND VIN (8~35V)

CON2			
PIN	SYMBOL	PIN	SYMBOL
1	Reserve	9	NC
2	Reserve	10	Reserve
3	Reserve	11	Reserve
4	Reserve	12	Reserve
5	Reserve	13	VIN
6	Reserve	14	RS485_B
7	Reserve	15	RS485_A
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.

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	SV10007R00A8K00N0108	

Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	Reserve	_	_
2	Reserve	_	_
3	Reserve	_	_
4	Reserve	_	_
5	Reserve	_	_
6	Reserve	_	_
7	Reserve	_	_
8	Reserve	_	_
9	NC	_	_
10	Reserve	_	_
11	Reserve	_	_
12	Reserve	_	
13	VIN	Power supply V+ input	_
14	RS485_B	RS485 B	I/O
15	RS485_A	RS485 A	I/O
16	GND	Power supply GND input	_

first FC 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	PA5
10	IO_1	ADC,Timer,Event,I/O @3.3V	PA6
11	IO_2	ADC,Timer,Event,I/O @3.3V	PA7
12	IO_3	ADC,Timer,Event,I/O @3.3V	PA8
13	IO_4	ADC,Timer,Event,I/O @3.3V	PC13
14	IO_5	ADC,Timer,Event,I/O @3.3V	PB11
15	IO_6	ADC,Timer,Event,I/O @3.3V	PA15
16	IO_7	RST,ADC,Event,I/O @3.3V	PD11

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

first components