



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



SPECIFICATION

MODEL NO. : WLOF00101000JGDAASA00

Summary

10.1 Inch Smart Display (RS485 series) Features

1. +12V power supply input, the power consumption is around 6W.
2. Self testing after booting function.
3. RS485 communication interface.
4. Built in flash memory, store the font and Object Dictionary Data.
5. Support capacitive touch panel (CTP).
6. Smart Display scenario is slave device display and action from Master Device instruction.
7. Embedded buzzer controlled by Master Device.
8. Demo set HOST can be used on multiple platforms, such as Computer (with USB to RS-485 Dongle), MCU.

Product information

Mechanical Data

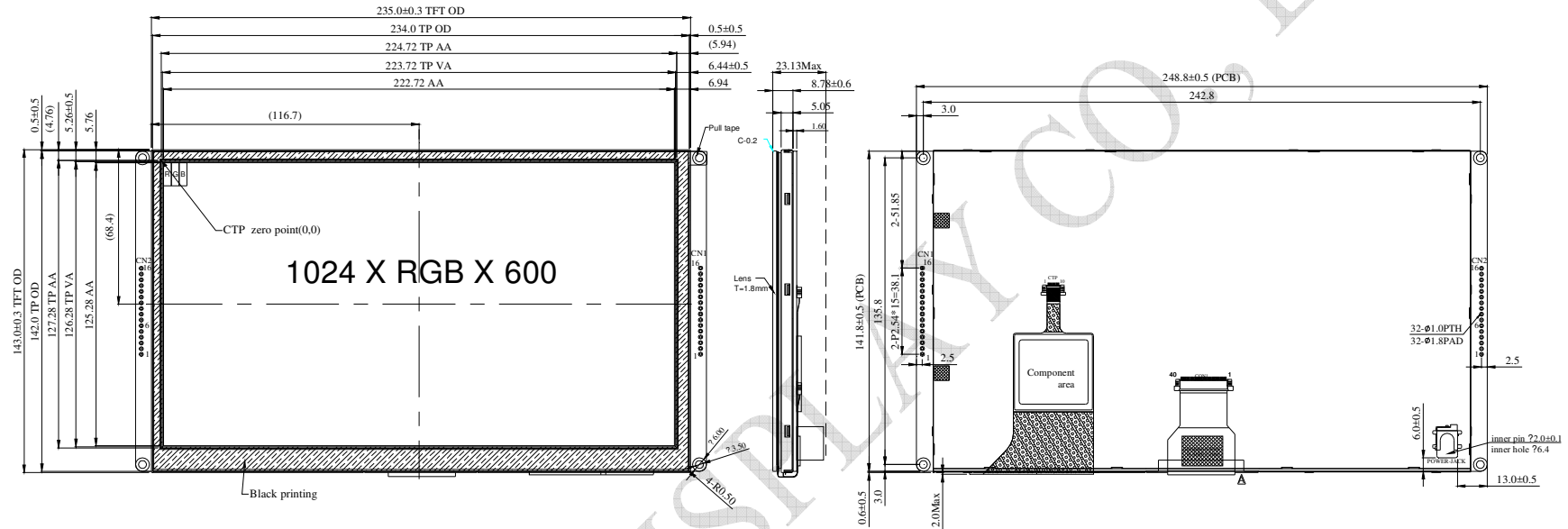
Item	Standard Value	Unit
LCD panel	235(W) x 143(H) x 8.78(D)	mm
PCB	248.8(W) x 143(H) x 1.6(D)	mm
Housing outline	NA	mm

General information

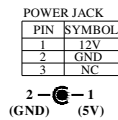
Item	Standard Value	Unit
Operating voltage	12	Vdc
Communication Interface	RS485 differential ± 3.3	Vpp
MCU	STM32F746	N/A
Flash Memory	16	MB
SDRAM Frequency	166	MHz
LCD display size	10.1	inch
Dot Matrix	1024 x RGB x 600(TFT)	dot
Module dimension	235(W) x 143(H) x 8.78(D)	mm
Active area	222.72 (H) x 125.28(V)	mm
Dot pitch	0.2175(W) x 0.2088(H)	mm
LCD type	LED, Normally White	
View Direction	85/85/85/85	
Aspect Ratio	16:9	
Touch Panel	With PCAP	
Surface	Glare	

Contour Drawing

WINSTAR DISPLAY CO., LTD



1	Lcd Type	TFT
2	Viewing Angle	85/85/85/85
3	Surface	Glare
4	Screen size	10.1"(diagonal)
5	Display format	1024 x RGB x 600
6	Operating Temperature	-20°C ~70°C
7	Storage Temperature	-30°C ~80°C
8	Active area	222.72(H) x 125.28(V) mm
9	Pixel pitch	0.2175(H) x 0.2088(V) mm
10	Color arrangement	RGB-STRIPE
11	Brightness	300min. 400typ. cd/m2
12	CTP Driver IC	ILI2511 or equivalent



CN2		CN1	
PIN	SYMBOL	PIN	SYMBOL
1	VDD3V	1	12V
2	PTAG_SWCLK	2	GND
3	GND	3	CAN_High
4	PTAG_SWDIO	4	CAN_Low
5	NRST	5	GND
6	GND	6	GND
7	BOOT	7	NC
8	BOOT0	8	NC
9	PA5	9	NC
10	PA6	10	RX
11	PA7	11	TX
12	PA8	12	GND
13	NC	13	5V
14	NC	14	RS485_B
15	PA11	15	RS485_A
16	PA12	16	GND

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

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	°C
Storage Temperature	TST	-30	—	+80	°C

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VCC	—	11.4	12	12.6	V
Supply LCM current	I(mA)	-	-	435	-	mA

BOM

Item	Description
LCM	WF101JTYAHLNB0#
PCBA	SV100101000JA00N0100

Interface

CON1 definition:

Pin	Symbol	Function	Remark
1	12V	Power supply 12V input	Power
2	GND	Power supply GND input	Power
3	—	—	—
4	—	—	—
5	GND	Power supply GND input	Power
6	GND	Power supply GND input	Power
7	—	—	—
8	—	—	—
9	VDD_3.9V	3.9V	Power
10	—	—	—
11	—	—	—
12	GND	GND	GND
13	VDD_3.9V	3.9V	Power
14	RS485_B	RS485 DATA-	I/O
15	RS485_A	RS485 DATA+	I/O
16	GND	GND	GND

CON2 definition:

Pin	Symbol	Function	Remark
1	VDD3V	3.3V power for JTAG interface	Output
2	JTAG_SWCLK	CLK pin for JTAG interface	Input
3	GND	GND for JTAG interface	Output
4	JTAG_SWDIO	Data pin for JTAG interface	I/O
5	NRST	Reset pin for JTAG interface	Input
6	GND	GND	Output
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

Display Usage

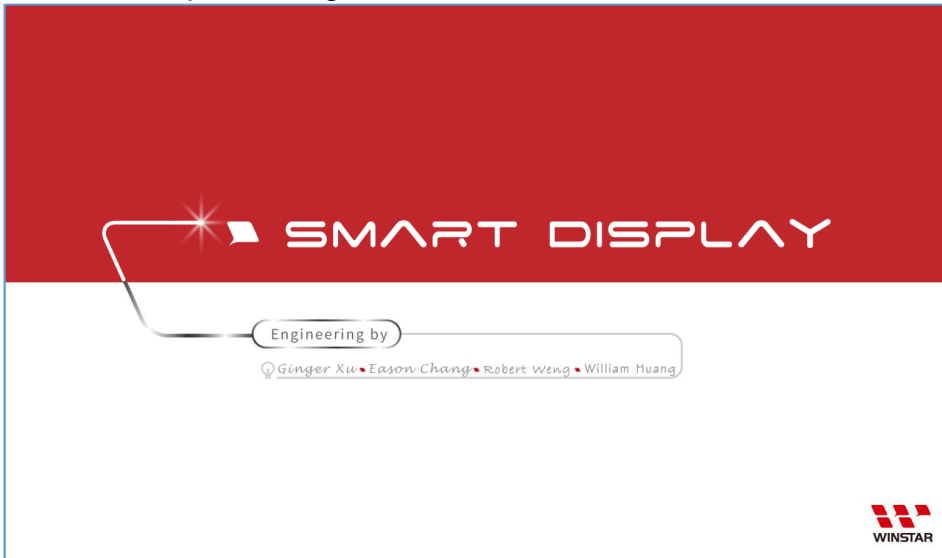
Functional description

Smart Display can be used to display the coordinate, status and data information provided by the connected HOST device. Customers can configure the position coordinates they want to display in normal operation mode (Device Address = 0x7B).

The Display is designed to be easily connected to a controller network, and to use the register type of Holding Register.

Splash Screen

The default splash image is shown below.



- ✓ This product is produced as a generic product. If you require a custom splash image for your application, contact us to discuss.

Default Selection

Press the preferred application and hold for 3 seconds for the first time power on.



Acquisition of Displayed Data

Smart Display uses the Modbus protocol to get and send the data.

On Config mode, customers can set the coordinates or type of objects; On Display mode, customers can send and get data of objects.

Configuring the Display

Winstar Smart Display RS-485 series offers an out-of-the-box Modbus development experience that will lower customers' development costs and speed time-to-market expectations

The Smart Display can use wide-temperature are designed to support control applications in harsh operating conditions, which designed to be connected to a variety of different situation combinations, such as automotive, marine, power generation and oil-and-gas.

The Smart Display comes with standard UI objects to get customers project off the ground quickly. If customers need custom UI objects support, our engineers are here to help. Send over your contents in PNG/JPG format, we will send over a new set of UI objects within 3~5 working days.

The Smart Display is defined as a slave device, which is controlled by master device via RS485 bus command to render display content on the display screen and return touch event data with protocol objects.

Example Screen Layout (Industry application)

Example Layout

The screen layout described in this section is intended to demonstrate the settings of screen items that can be used in an industry application situation.



Example Screen Layout (Vehicle automotive)

Example Layout

The screen layout described in this section is intended to demonstrate the settings of screen items that can be used in a vehicle automotive situation.



Example Screen Layout (Medical application)

Example Layout

The screen layout described in this section is intended to demonstrate the settings of screen items that can be used in a Medical application situation.

