SMART DISPLAY SPECIFICATION



RAYSTAR Optronics, Inc.
曜凌光電股份有限公司

曜凌光電股份有限公司
Raystar Optronics, Inc.
T: +886-4-2565-0761 | F: +886-4-2565-0760
salescontact@raystar-optronics.com | www.raystar-optronics.com

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Summary

4.3-inch Smart Display (RS485 series with GPIO) Feature

1. Input voltage dynamic range 5V to 28V, typical voltage 12V.
2. Self-testing after booting function.
3. RS485 communication interface.
4. Built in 16MB flash memory, store the fonts and pictures.
5. Support projected capacitive touch panel (PCAP).
6. Embedded buzzer function.
7. Demo set HOST can be used on multiple platforms, such as Computer (with USB to CAN Dongle), MCU, Raspberry Pi
8. Supports 8 channel Bi-direction GPIOs with TTL 3.3V logic level. The setting functions through PC tools, Smart Display GUI Builder.

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Product Information

General Information

Item	Standard Value	Unit
Operating Voltage	5-28	Vdc
Communication Interface	RS485 differential	--
MCU	STM32F750	N/A
Flash Memory	16	MB
LCD Display Size	4.3	inch
Dot Matrix	480× 3(RGB) × 272	dot
Module Dimension	119.3(W) ×67.2(H) ×13	mm
Active Area	95.04(W) × 53.856 (H)	mm
Pixel Pitch	0.198(H) x 0.198(V)	mm
Brightness	Min: 300; Typ: 400	cd/m^2
LCD Type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	16:9	
Touch Panel	Projected Capacitive Touch Panel, PCAP	
Surface	Glare	

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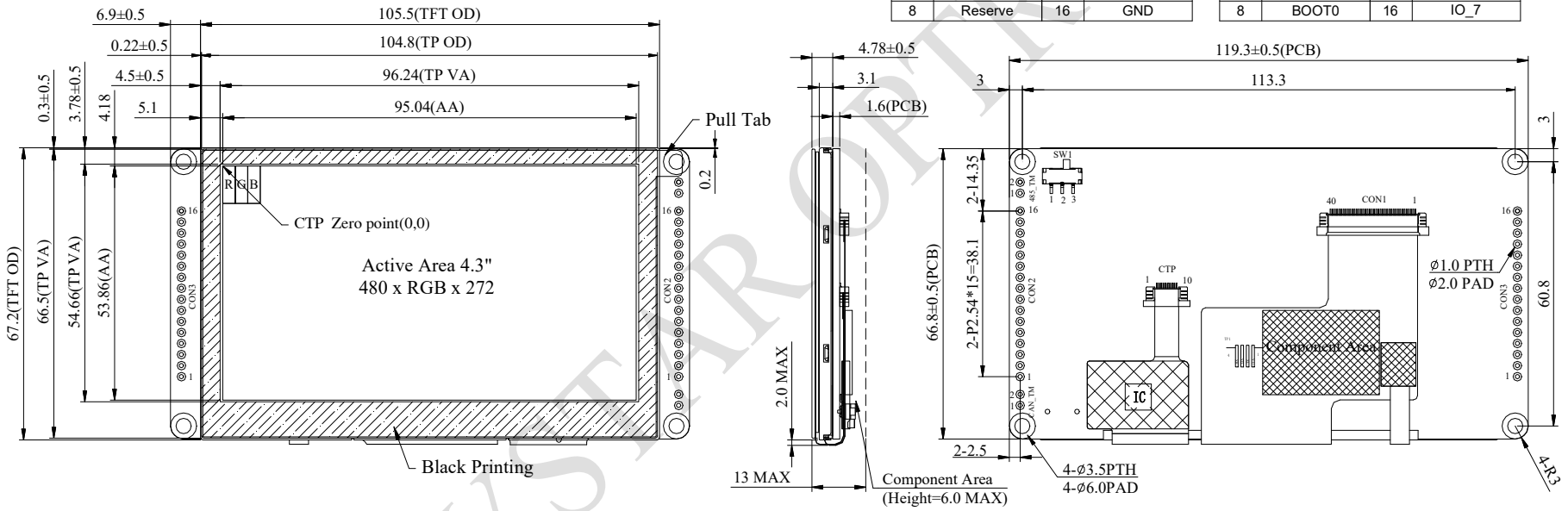
Contour Drawing

CON2

PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	Reserve
2	GND	10	Reserve
3	Reserve	11	Reserve
4	Reserve	12	GND
5	GND	13	VIN
6	GND	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.

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	VCC	5	12	28	V
Supply Current	ICC		180		mA
I/O pin Voltage	--	--	--	3.3	V

BOM

Item	Description
LCM	RFE43AW-AWW-DNG
PCBA	SV10004R300WB00N0100

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Interface

CON2 Definition

Pin	Symbol	Function	Remark
16	GND	Power GND	Input
15	RS485_A	Driver output or receiver input (complementary to B)	BUS I/O
14	RS485_B	Driver output or receiver input (complementary to B)	BUS I/O
13	VIN	Power +5V~+28V	Input
12	GND	Power GND	Input
11	Reserved	--	--
10	Reserved	--	--
9	Reserved	--	--
8	Reserved	--	--
7	Reserved	--	--
6	GND	Power GND	Input
5	GND	Power GND	Input
4	Reserved	--	--
3	Reserved	--	--
2	GND	Power GND	Input
1	VIN	Power +5V~+28V	Input

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CON3 Definition

Pin	Symbol	Function	Remark
16	IO_7	GPIO (PC5)	I/O
15	IO_6	GPIO (PC4)	I/O
14	IO_5	GPIO (PC1)	I/O
13	IO_4	GPIO (PF9)	I/O
12	IO_3	GPIO (PB5)	I/O
11	IO_2	GPIO (PB4)	I/O
10	IO_1	GPIO (PD5)	I/O
9	IO_0	GPIO (PD4)	I/O
8	BOOT0	--	--
7	WKUP	Wake UP (PA0)	Input
6	GND	GND for SWD interface	Output
5	NRST	Reset pin for SWD interface	Input
4	SWDIO	Data pin for SWD interface	I/O
3	GND	GND for SWD interface	Output
2	SWCLK	CLK pin for SWD interface	Input
1	+3V3	3.3V power for SWD interface	Output

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