



RAYSTAR

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RFS52VA-1ZH-DHG

SPECIFICATION

General Specifications

- Size: 5.2 inch
 - Dot Matrix: 480 x 3(RGB) x 128 dots
 - Module dimension: 180.0 x 75.8 x 24.0(Max) mm
 - Active area: 127.152 x 33.9072 mm
 - Dot pitch: 0.0883 x 0.2649 mm
 - LCD type: TFT, Normally White, Transmissive
 - View Direction: 6 o'clock
 - Gray Scale Inversion Direction: 12 o'clock
 - Aspect Ratio: Bar Type
 - Backlight Type: LED, Normally White
 - Controller IC: TFP401
 - Interface: HDMI (only for DVI)
 - Touch Panel: Projected Capacitive Touchscreen, PCAP
 - PCAP IC: GT911 or equivalent
 - PCAP Interface: USB
 - PCAP FW Version: 0x99
 - Surface: Glare
- *Color tone slight changed by temperature and driving voltage.

Interface

LCM PIN Definition(CON4)

Pin	Symbol	Function
1	NC	No connector
2	5V	Raspberry Pi:Power 5V
3	GPIO02	Raspberry Pi:GPIO02
4	5V	Raspberry Pi:Power 5V
5	GPIO03	Raspberry Pi:GPIO03
6	GND	Raspberry Pi:GND
7	GPIO04	Raspberry Pi:GPIO04
8	GPIO14	Raspberry Pi:GPIO14
9	GND	Raspberry Pi:GND
10	GPIO15	Raspberry Pi:GPIO15
11	GPIO17	Raspberry Pi:GPIO17
12	GPIO18	Raspberry Pi:GPIO18 (Backlight Enable)
13	GPIO27	Raspberry Pi:GPIO27
14	GND	Raspberry Pi:GND
15	GPIO22	Raspberry Pi:GPIO22
16	GPIO23	Raspberry Pi:GPIO23
17	NC	No connector
18	GPIO24	Raspberry Pi:GPIO24
19	GPIO10	Raspberry Pi:GPIO10
20	GND	Raspberry Pi:GND
21	GPIO09	Raspberry Pi:GPIO09
22	GPIO25	Raspberry Pi:GPIO25
23	GPIO11	Raspberry Pi:GPIO11
24	GPIO08	Raspberry Pi:GPIO08
25	GND	Raspberry Pi:GND
26	GPIO07	Raspberry Pi:GPIO07
27	ID_SD	Raspberry Pi:ID_SD
28	ID_SC	Raspberry Pi:ID_SC
29	GPIO05	Raspberry Pi:GPIO05
30	GND	Raspberry Pi:GND

31	GPIO06	Raspberry Pi:GPIO06
32	GPIO12	Raspberry Pi:GPIO12
33	GPIO13	Raspberry Pi:GPIO13
34	GND	Raspberry Pi:GND
35	GPIO19	Raspberry Pi:GPIO19
36	GPIO16	Raspberry Pi:GPIO16
37	GPIO26	Raspberry Pi:GPIO26
38	GPIO20	Raspberry Pi:GPIO20
39	GND	Raspberry Pi:GND
40	GPIO21	Raspberry Pi:GPIO21

LCM PIN Definition(CON5)

Pin	Symbol	Function
1	3.3V	TFT Module Power limit can only output 3.3V,100mA
2	5V	Raspberry Pi:Power 5V
3	GPIO02	Raspberry Pi:GPIO02
4	5V	Raspberry Pi:Power 5V
5	GPIO03	Raspberry Pi:GPIO03
6	GND	Raspberry Pi:GND
7	GPIO04	Raspberry Pi:GPIO04
8	GPIO14	Raspberry Pi:GPIO14
9	GND	Raspberry Pi:GND
10	GPIO15	Raspberry Pi:GPIO15
11	GPIO17	Raspberry Pi:GPIO17
12	GPIO18	Raspberry Pi:GPIO18 (Backlight Enable)
13	GPIO27	Raspberry Pi:GPIO27
14	GND	Raspberry Pi:GND
15	GPIO22	Raspberry Pi:GPIO22
16	GPIO23	Raspberry Pi:GPIO23
17	3.3V	TFT Module Power limit can only output 3.3V,100mA
18	GPIO24	Raspberry Pi:GPIO24
19	GPIO10	Raspberry Pi:GPIO10
20	GND	Raspberry Pi:GND

21	GPIO09	Raspberry Pi:GPIO09
22	GPIO25	Raspberry Pi:GPIO25
23	GPIO11	Raspberry Pi:GPIO11
24	GPIO08	Raspberry Pi:GPIO08
25	GND	Raspberry Pi:GND
26	GPIO07	Raspberry Pi:GPIO07
27	ID_SD	Raspberry Pi:ID_SD
28	ID_SC	Raspberry Pi:ID_SC
29	GPIO05	Raspberry Pi:GPIO05
30	GND	Raspberry Pi:GND
31	GPIO06	Raspberry Pi:GPIO06
32	GPIO12	Raspberry Pi:GPIO12
33	GPIO13	Raspberry Pi:GPIO13
34	GND	Raspberry Pi:GND
35	GPIO19	Raspberry Pi:GPIO19
36	GPIO16	Raspberry Pi:GPIO16
37	GPIO26	Raspberry Pi:GPIO26
38	GPIO20	Raspberry Pi:GPIO20
39	GND	Raspberry Pi:GND
40	GPIO21	Raspberry Pi:GPIO21

Note1: The 3.3V supply current is limited; please pay special attention to use

HDMI

Pin No.	Symbol	I/O	Function
1	Rx2+	I	+LVDS Differential Data Input
2	GND	P	Ground
3	Rx2-	I	-LVDS Differential Data Input
4	Rx1+	I	+LVDS Differential Data Input
5	GND	P	Ground
6	Rx1-	I	-LVDS Differential Data Input
7	Rx0+	I	+LVDS Differential Data Input
8	GND	P	Ground
9	Rx0-	I	-LVDS Differential Data Input
10	RxC+	I	+LVDS Differential Clock Input
11	GND	P	Ground

12	RxC-	I	-LVDS Differential Clock Input
13-14	NC	-	No connection
15	NC	-	No connection
16	NC	-	No connection
17	GND	P	Ground
18	5V	P	Power Supply
19	NC	-	No connection

I: input, O: output, P: Power

Note 1: Only supports Raspberry Pi series

PCAP USB PIN Definition (CON3)

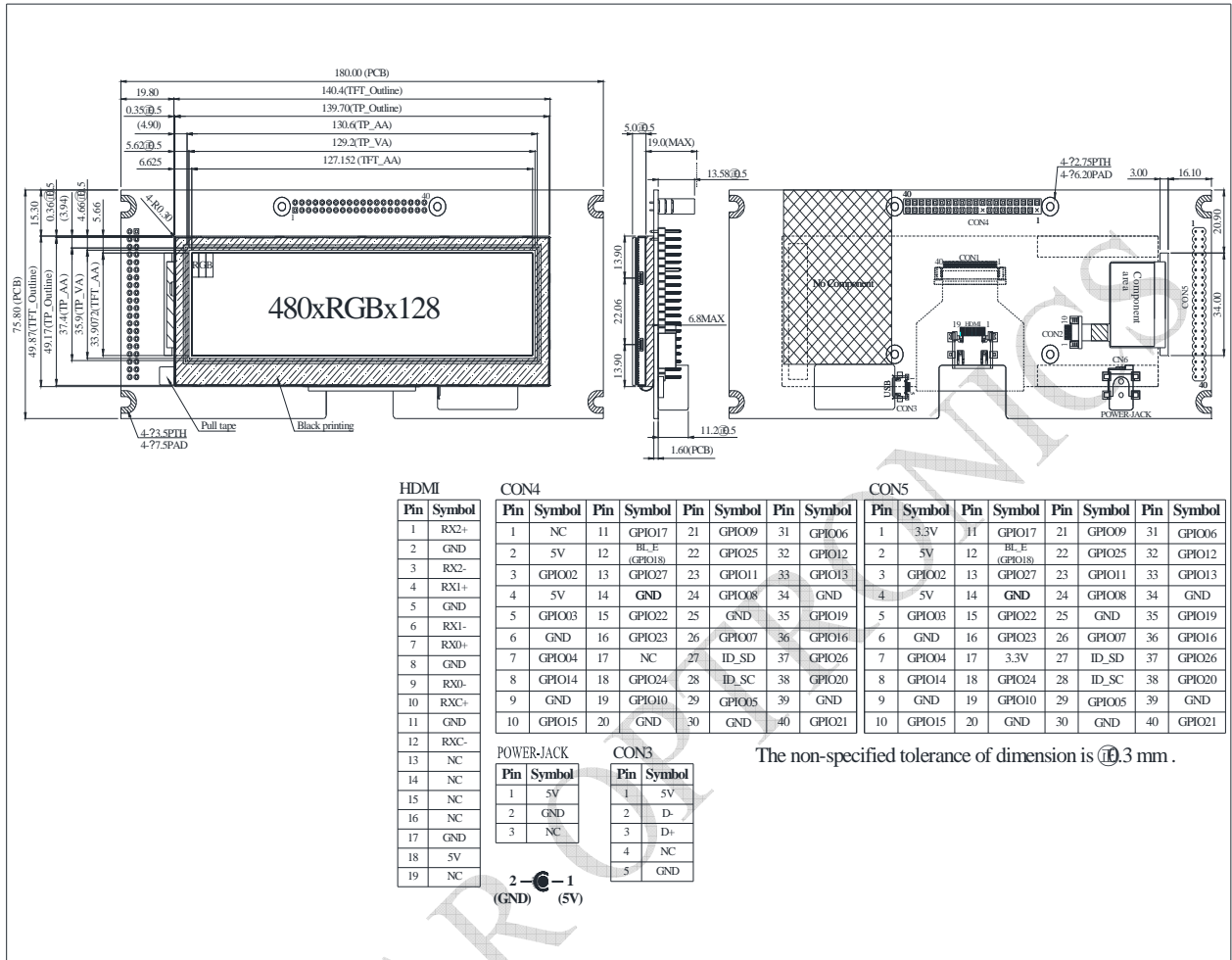
Pin	Symbol	Function
1	5V	Power Supply (5V)
2	D-	Data line -
3	D+	Data line +
4	NC	No connection
5	GND	Power Ground

Note 1: Only supports Raspberry Pi series

POWER-JACK

Pin No.	Symbol	I/O	Function
1	5V	P	Power Supply
2	GND	P	Ground
3	NC	-	No connection

Contour Drawing



Absolute Maximum Ratings

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

Electrical Characteristics

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	—	—	5	—	V
Supply Current For LCM	IDD	—	—	1200	1800	mA
LED life time	—	—	—	50,000	—	Hr

Note 1 : This value is test for VDD =5.0V , Ta=25°C only