

TFT DISPLAY SPECIFICATION



RAYSTAR

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RFS52AA-ALH-DNG

General Specifications

- Size: 5.2 inch
- Dot Matrix: 480 x RGBx128 dots
- Module dimension: 140.4 x 49.87 x 4.96 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
- Driver IC: ST7252
- Interface: RGB 24bit
- PCAP IC: GT911
- PCAP Interface: I2C
- PCAP FW Version: 0x95
- Touch Panel: Projected Capacitive Touch Panel, PCAP
- Surface: Glare

Interface

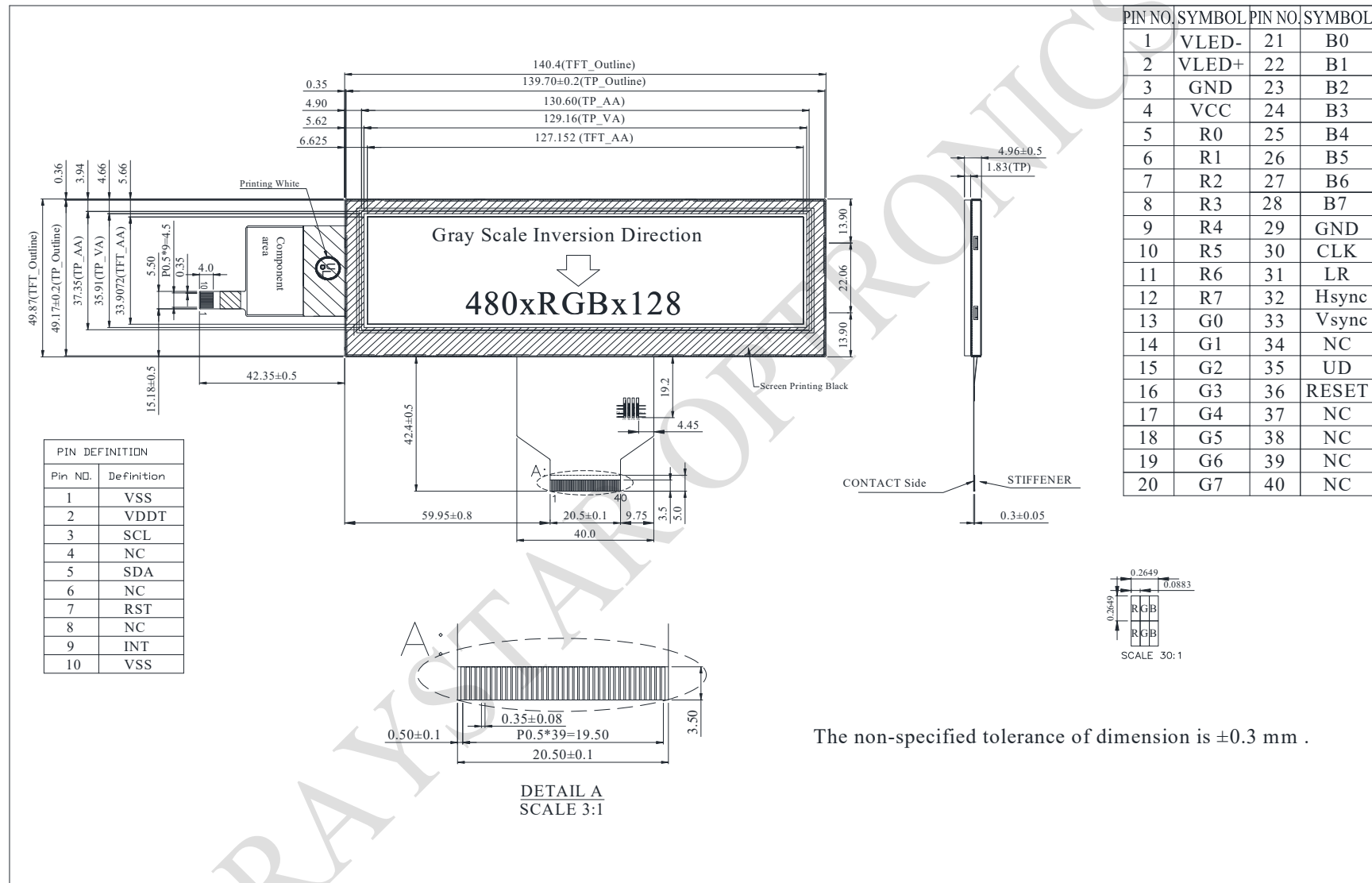
LCM PIN Definition

Pin	Symbol	Function
1	VLED-	Power for LED backlight cathode
2	VLED+	Power for LED backlight anode
3	GND	Power ground
4	VCC	Power voltage
5	R0	Red data (LSB)
6	R1	Red data
7	R2	Red data
8	R3	Red data
9	R4	Red data
10	R5	Red data
11	R6	Red data
12	R7	Red data (MSB)
13	G0	Green data (LSB)
14	G1	Green data
15	G2	Green data
16	G3	Green data
17	G4	Green data
18	G5	Green data
19	G6	Green data
20	G7	Green data (MSB)
21	B0	Blue data (LSB)
22	B1	Blue data
23	B2	Blue data
24	B3	Blue data
25	B4	Blue data
26	B5	Blue data
27	B6	Blue data
28	B7	Blue data (MSB)
29	GND	Power ground
30	CLK	Pixel clock (DCLK)
31	LR	Right /Left selection; Default R/L=High
32	HSYNC	Horizontal sync signal; negative polarity
33	VSYNC	Vertical sync signal; negative polarity
34	NC	No connection
35	UD	Up/down selection; Default U/D=High
36	RESET	Reset signal
37	NC	No connection
38	NC	No connection
39	NC	No connection
40	NC	No connection

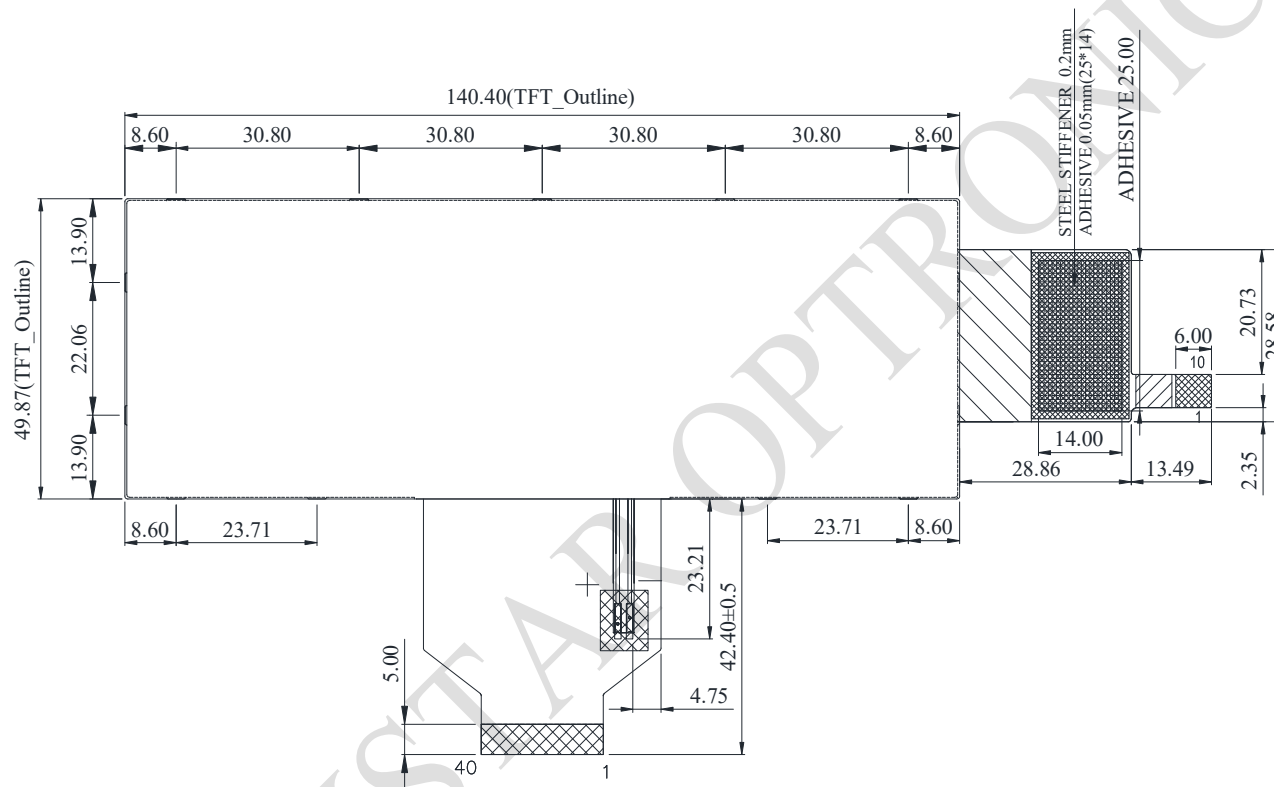
PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.3V
3	SCL	I2C clock signal
4	NC	No connect
5	SDA	I2C data signal
6	NC	No connect
7	RST	External reset signal, active low
8	NC	No connect
9	INT	Interrupt signal, active low, asserted to request Host start a new transcation.
10	VSS	Ground for analog circuit

Contour Drawing



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



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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	VCC	—	3.0	3.3	3.6	V
Supply Voltage For Touch	VDDT	—	2.8	—	3.3	V
Supply Current For LCM	ICC	-	—	20	—	mA

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current		-	80	-	mA
LED voltage	VLED+	16.8	18.6	21	V
LED Life Time		-	50,000	-	Hr