RAYSTAR

RAYSTAR Optronics, Inc.
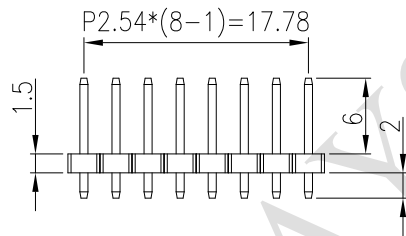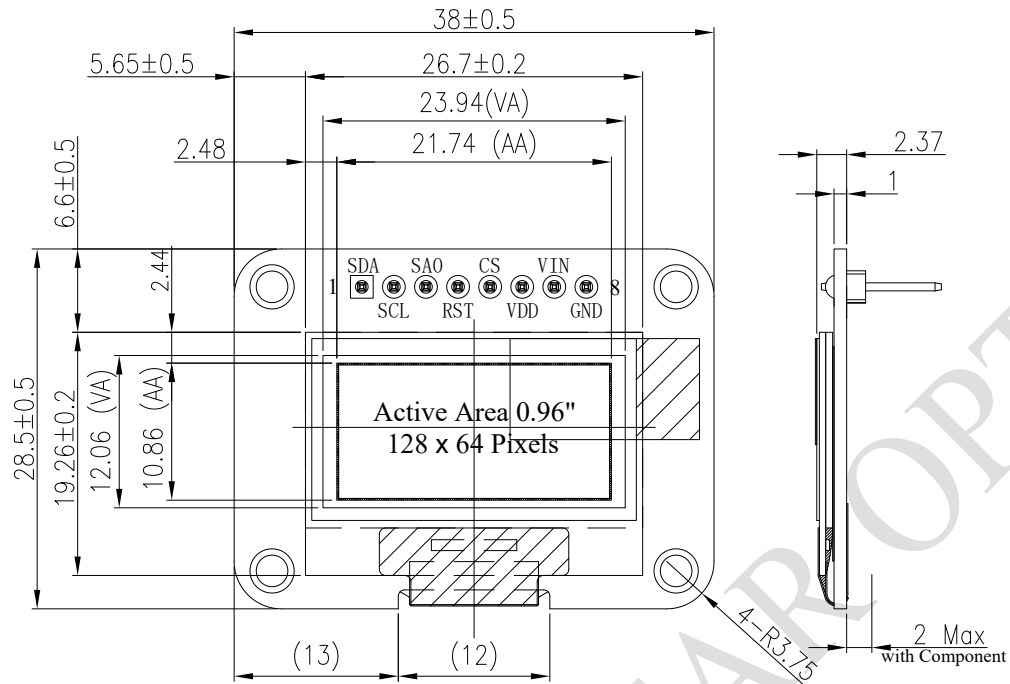曜凌光電股份有限公司

REA012864D-01

General Specification

- Module dimension: 38.00 x 28.50 x 2.37 mm

- Active area: 21.74 × 10.86 mm

- Dot Matrix: 128 × 64

- Dot size: 0.148 × 0.148 mm

- Dot pitch: 0.17 × 0.17 mm

- Display Mode：Passive Matrix

- Duty: 1/64 Duty

- Display Color: Monochrome

- IC: SSD1306BZ

- Interface: I2C, Optional SPI

- Size: 0.96 inch
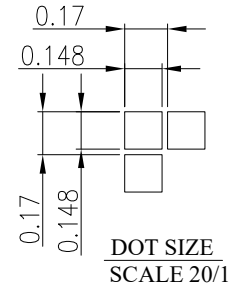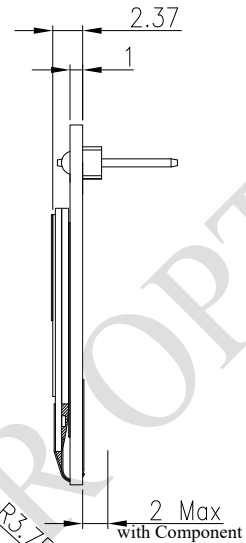
Interface Pin Function

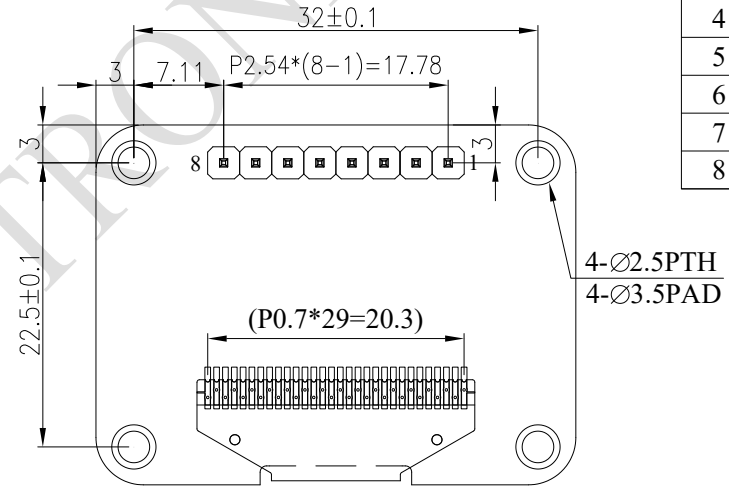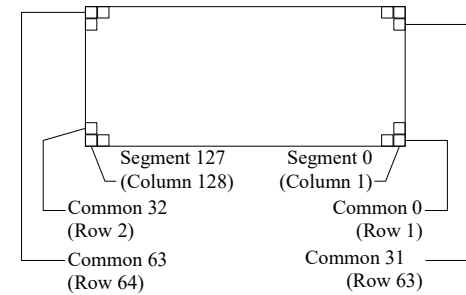| No.	Symbol	Function
1	SDA	When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN.
2	SCL	When I2C mode is selected, D2, D1 should be tied together and serve as SDAout, SDAin in application and D0 is the serial clock input, SCL.
3	SA0	In I2C mode, this pin acts as SA0 for slave address selection. When 3-wire serial interface is selected, this pin must be connected to VSS.
4	RST	This pin is reset signal input. When the pin is pulled LOW, initialization of the chip is executed. Keep this pin HIGH (i.e. connect to VDD) during normal operation.
5	CS	This pin is the chip select input. (active LOW).
6	VDD	3.0V Power supply pin for core logic operation.
7	VIN	5.0V Power supply pin for core logic operation.
8	GND	This is a ground pin.

Contour Drawing

PIN NO.	SYMBOL
1	SDA
2	SCL
3	SA0
4	RST
5	CS
6	VDD
7	VIN
8	GND

38±0.5

5.65±0.5

26.7±0.2

23.94(VA)

2.48

21.74 (AA)

6.6±0.5

2.44

SDA   SA0   CS   VIN

1   SCL   RST   VDD   GND   8

2.37

1

32±0.1

3   7.11   P2.54*(8-1)=17.78

3

28.5±0.5

19.26±0.2

12.06 (VA)

10.86 (AA)

Active Area 0.96"
128 x 64 Pixels

22.5±0.1

8   1   3

4-∅2.5PTH
4-∅3.5PAD

(P0.7*29=20.3)

(13)   (12)

4-R3.75

2 Max
with Component

P2.54*(8-1)=17.78

1.5

6

2

0.17

0.148

0.17

0.148

DOT SIZE
SCALE 20/1

SCALE 1/1

Segment 127
(Column 128)

Segment 0
(Column 1)

Common 32
(Row 2)

Common 0
(Row 1)

Common 63
(Row 64)

Common 31
(Row 63)

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

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	1.65	3.3	V
Supply Voltage for Logic	VIN	4.0	6.0	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C

Electrical Characteristics

DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic (3V)	VDD	—	3.0	3.2	3.3	V
Supply Voltage for Logic (5V)	VIN	—	4.8	5.0	5.2	V
Input High Volt.	VIH	—	0.8×VDD	—	VDD	V
Input Low Volt.	VIL	—	0	—	0.2×VDD	V
Output High Volt.	VOH	—	0.9×VDD	—	VDD	V
Output Low Volt.	VOL	—	0	—	0.1×VDD	V
50% Check Board operating Current	IDD	VDD=3.3V	—	15	23	mA