



# SPECIFICATION

# OLED SPECIFICATION

Model No:

REX012832A

## General Specification

The Features is described as follow:

- Module dimension: 62.0 × 24.0 × 2.35 (MAX) mm
- View area: 57.02 × 15.10 mm
- Active area: 55.018 × 13.098 mm
- Dot Matrix: 128\*32
- Dot size: 0.408 × 0.388 mm
- Dot pitch: 0.43 × 0.41 mm
- Duty: 1/32
- Display Color: Monochrome

## Interface Pin Function

No.	Symbol	Function															
1	N.C.(GND)	No connection															
2	VLSS	This is an analog ground pin. It should be connected to VSS externally.															
3	VSS	Ground.															
4	N.C.	No connection															
5	VDD	Power supply pin for core logic operation															
6	BS1	Communicating Protocol Select These pins are MCU interface selection input. See the following table:															
7	BS2	<table border="1"> <thead> <tr> <th></th> <th>68XX-parallel</th> <th>80XX-parallel</th> <th>Serial</th> <th>I2C</th> </tr> </thead> <tbody> <tr> <td>BS1</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>BS2</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> </tr> </tbody> </table>		68XX-parallel	80XX-parallel	Serial	I2C	BS1	0	1	0	1	BS2	1	1	0	0
	68XX-parallel	80XX-parallel	Serial	I2C													
BS1	0	1	0	1													
BS2	1	1	0	0													
8	CS#	This pin is the chip select input. (active LOW)															
9	RES#	This pin is reset signal input. When the pin is LOW, initialization of the chip is executed. Keep this pin HIGH (i.e. connect to VDDIO) during normal operation.															
10	D/C#	This is Data/Command control pin. When it is pulled HIGH (i.e. connect to VDDIO), the data at D[7:0] is treated as data. When it is pulled LOW, the data at D[7:0] will be transferred to the command register. In I2C mode, this pin acts as SA0 for slave address selection.															
11	R/W#	This is read / write control input pin connecting to the MCU interface. When interfacing to a 6800-series microprocessor, this pin will be used as Read/Write (R/W#) selection input. Read mode will be carried out when this pin is pulled HIGH (i.e. connect to VDDIO) and write mode when LOW. When 8080 interface mode is selected, this pin will be the Write (WR#) input. Data write operation is initiated when this pin is pulled LOW and the chip is selected. When serial interface is selected, this pin must be connected to VSS.															
12	E/RD#	When interfacing to a 6800-series microprocessor, this pin will be used as the Enable (E) signal. Read/write operation is initiated when this pin is pulled HIGH (i.e. connect to VDDIO) and the chip is selected. When connecting to an 8080-microprocessor, this pin receives the Read (RD#) signal. Read operation is initiated when this pin is pulled LOW and the chip is selected. When serial interface is selected, this pin must be connected to															

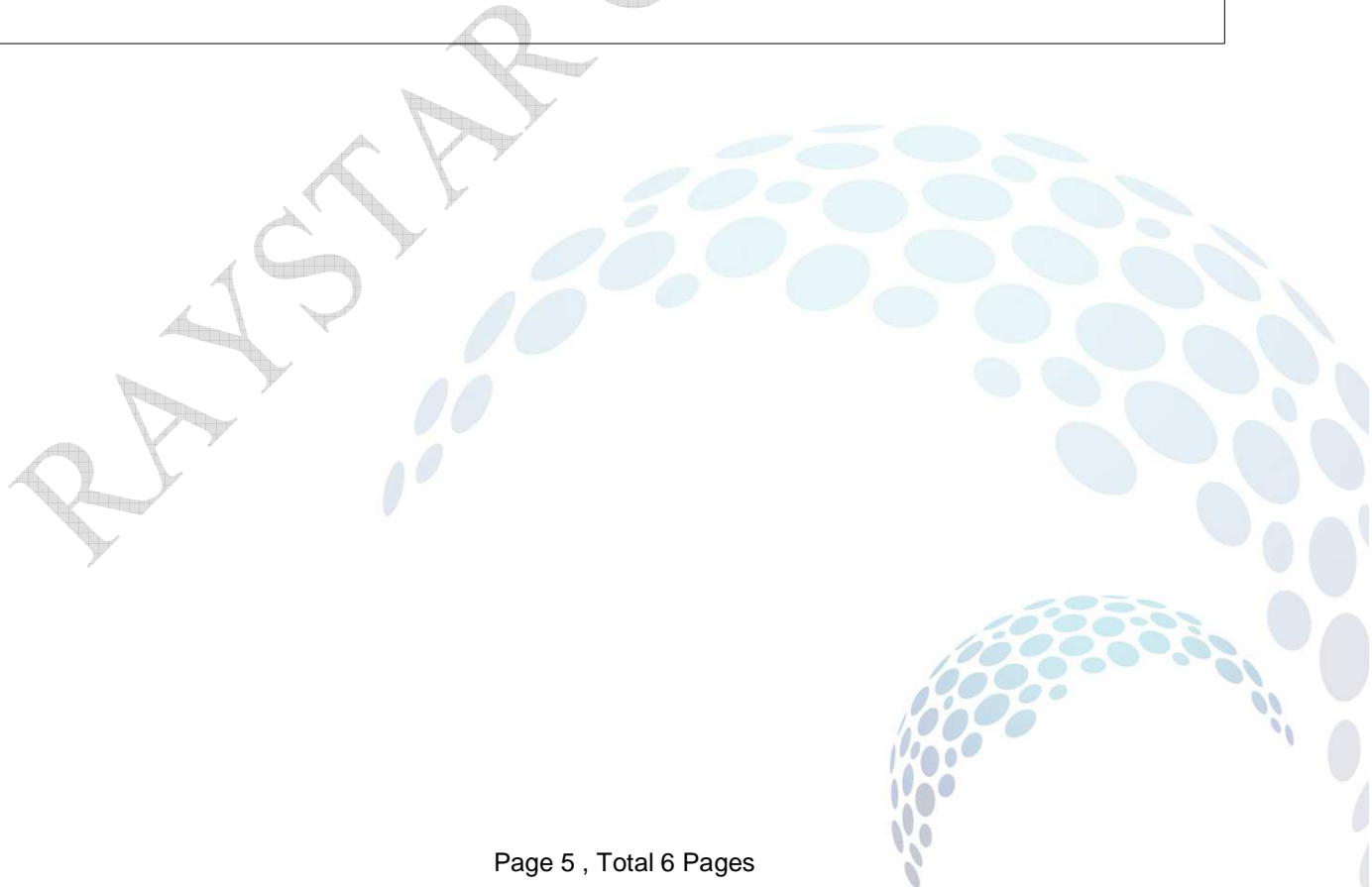
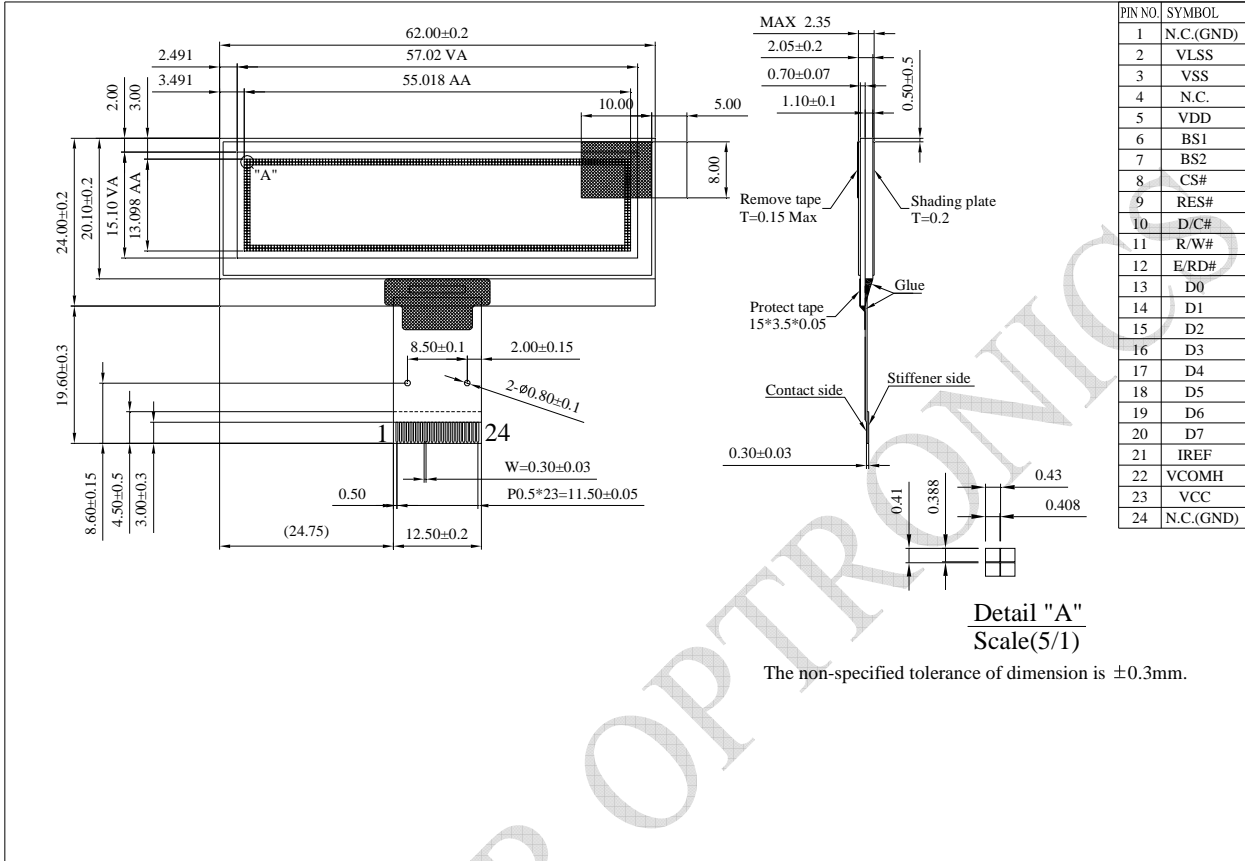


		VSS.
13	D0	These are 8-bit bi-directional data bus to be connected to the microprocessor's data bus. When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN and D2 should be left opened. When I2C mode is selected, D2, D1 should be tied together and serve as SDAout, SDAin in application and D0 is the serial clock input, SCL.
14	D1	
15	D2	
16	D3	
17	D4	
18	D5	
19	D6	
20	D7	
21	IREF	This is segment output current reference pin. A resistor should be connected between this pin and VSS to maintain the IREF current at 10uA.
22	VCOMH	The pin for COM signal deselected voltage level. A capacitor should be connected between this pin and VSS.
23	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin.
24	N.C.(GND)	No connection



RAYSTAR

# Contour Drawing & Block Diagram



## Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VDD	-0.3	4	V	1, 2
Supply Voltage for Display	VCC	0	15	V	1, 2
Operating Temperature	TOP	-40	+80	°C	-
Storage Temperature	TSTG	-40	+85	°C	-

Note 1: All the above voltages are on the basis of “VSS = 0V”.

Note 2: When this module is used beyond the above absolute maximum ratings, permanent breakage of the module may occur. Also, for normal operations, it is desirable to use this module under the conditions according to Section6 “Electrical Characteristics”. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate

## Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic	VDD	—	2.8	3.0	3.3	V
Supply Voltage for Display	VCC	—	10	12	15	V
High Level Input	VIH	—	0.8×VDD	—	VDD	V
Low Level Input	VIL	—	0	—	0.2×VDD	V
High Level Output	VOH	—	0.9×VDD	—	VDD	V
Low Level Output	VOL	—	0	—	0.1×VDD	V
50% Check Board operating Current		VCC =12V	22	23	25	mA