RAYSTAR

SPECIFICATION

OLED SPECIFICATION

Model No:

REX025664A-Hotbar

General Specification

The Features is described as follow:

- Module dimension: 60.5 x 19.0 x 1.61 mm

- Active area: 51.18 x 12.78mm

- Dot Matrix: 256 x 64 Dots

- Pixel Size: 0.18 x 0.18 mm

- Pixel Pitch: 0.20 x 0.20 mm

- Display Mode: Passive Matrix

- Duty: 1/64 Duty

- Gray Scale: 4 Bits

- Display Color: Monochrome

- IC: SSD1362

- Interface: 3-Wire and 4-Wire SPI, I2C, 6800, 8080

- Size: 2.08 inch

Interface Pin Function

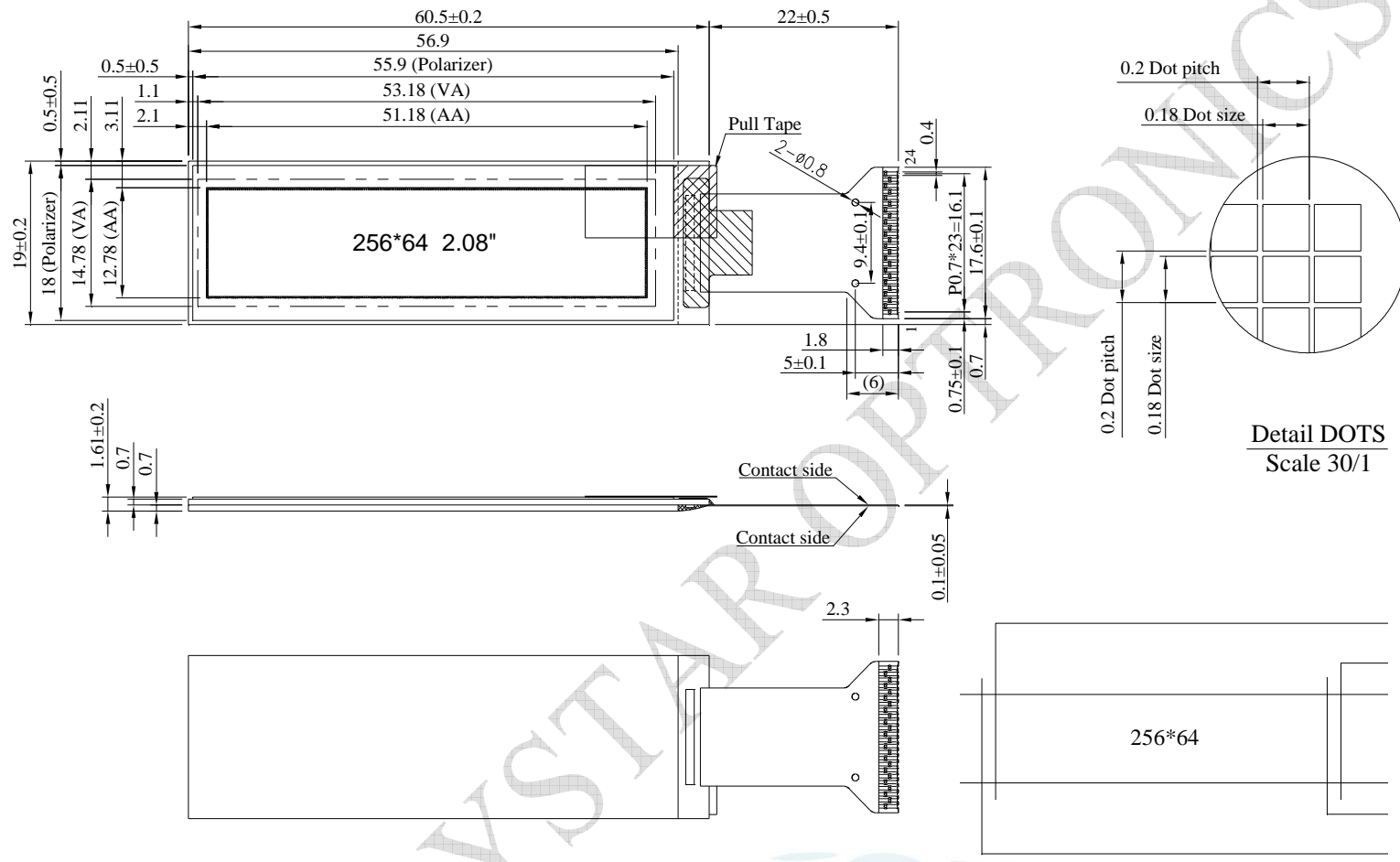| No.	Symbol	Function
1	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin. It is supplied by external high voltage source.
2	VP	This pin is the segment pre-charge voltage reference pin. A capacitor should be connected between this pin and VSS. No external power supply is allowed to connect to this pin.
3	VCOMH	COM signal deselected voltage level. A capacitor should be connected between this pin and VSS. No external power supply is allowed to connect to this pin.
4	VDD	Power supply for core logic operation. VDD can be supplied externally (within the range of 1.65V to 2.6V) or regulated internally from VCI when VCI is >2.6V. A capacitor should be connected between VDD and VSS under all circumstances.
5	IREF	This pin is the segment output current reference pin. When external IREF is used, a resistor should be connected between this pin and VSS to maintain current of around 18.75uA. When internal IREF is used, this pin should be kept NC.
6	VSS	Ground pin. It must be connected to external ground.
7	VSS	Ground pin. It must be connected to external ground.
8	VCI	Low voltage power supply. VCI must always be equal to or higher than VDD and VDDIO.
9	BS0	MCU bus interface selection pins. Select appropriate logic setting as described
10	BS1	in the following table. BS2 and BS1, BS0 are pin select.
11	BS2	 | BS[2:0]	Interface | | 000 | 4 line SPI | | 001 | 3 line SPI | | 110 | 8-bit 8080 parallel | | 100 | 8-bit 6800 parallel | | 010 | I²C | Note (1) 0 is connected to VSS (2) 1 is connected to VCI
12	CS	This pin is the chip select input connecting to the MCU. The chip is enabled for MCU communication only when CS is pulled LOW (active LOW). In I2C mode, this pin must be connected to VSS.
13	RES	This pin is reset signal input. When the pin is pulled LOW, initialization of the chip is executed. Keep this pin pull HIGH during normal operation.
14	D/C	This pin is Data/Command control pin connecting to the MCU. When the pin is pulled HIGH, the data at D[7:0] will be interpreted as data.

15	R/W	When the pin is pulled LOW, the data at D[7:0] will be transferred to a command register. 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.
15	R/W	This pin is read / write control input pin connecting to the MCU interface. When 6800 interface mode is selected, this pin will be used as Read/Write (R/W) selection input. Read mode will be carried out when this pin is pulled HIGH 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 or I2C interface is selected, this pin must be connected to VSS.
16	RD	This pin is MCU interface input. When 6800 interface mode is selected, this pin will be used as the Enable signal. Read/write operation is initiated when this pin is pulled HIGH and the chip is selected. When 8080 interface mode is selected, this pin receives the Read (RD) signal. Read operation is initiated when this pin is pulled LOW and the chip is selected. When serial or I2C interface is selected, this pin must be connected to VSS.
17	D0	These pins are bi-directional data bus connecting to the MCU data bus. Unused pins are recommended to tie LOW. When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SID. When I2C mode is selected, D2, D1 should be tied together and serve as SDA$_{out}$, SDA$_{in}$ in application and D0 is the serial clock input, SCL.
18	D1	
19	D2	
20	D3	
21	D4	
22	D5	
23	D6	
24	D7	

Contour Drawing & Block Diagram

PIN	SYMBOL
1	VCC
2	VP
3	VCOMH
4	VDD
5	IREF
6	VSS
7	VSS
8	VCI
9	BS0
10	BS1
11	BS2
12	CS
13	RES
14	D/C
15	R/W
16	RD
17	D0
18	D1
19	D2
20	D3
21	D4
22	D5
23	D6
24	D7

256*64 2.08"

Pull Tape

0.2 Dot pitch
0.18 Dot size

Detail DOTS
Scale 30/1

Contact side
Contact side

256*64

S255(SEG127)
S1(SEG0)
C1(COM0)
C64(COM63)
S2(SEG128)
S256(SEG255)

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

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Operation	VCI	-0.5	5.5	V
Supply Voltage for Logic	VDD	-0.5	2.75	V
Supply Voltage for Display	VCC	-0.5	21	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	VCI	—	2.8	3.0	3.3	V
Supply Voltage for Display	VCC	—	11.5	12.0	12.5	V
Input High Volt.	VIH	—	0.8×VCI	—	VCI	V
Input Low Volt.	VIL	—	VSS	—	0.2×VCI	V
Output High Volt.	VOH	—	0.9×VCI	—	VCI	V
Output Low Volt.	VOL	—	VSS	—	0.1×VCI	V
50% Check Board operating Current	ICC	VCC=12V	—	15	30	mA