# SCY-1021 OLED Switch 96RGBx64 (0.95”)

## ☆ DISPLAY SPECIFICATIONS

- **Display Type:** OLED
- **Display Mode:** Passive Matrix
- **Display Color :** 65,536 Colors (Maximum)
- **Drive Duty:** 1/64 Duty
- **Number of Pixels :** 96(RGB) x 64
- **Pixel Size:** 0.05 x 0.19 mm
- **Pixel Pitch :** 0.07 x 0.21 mm
- **Active Area:** 20.14 x 13.42 mm

## ★ SWITCH SPECIFICATIONS

- **Function:** Normally Open Contact
- **Voltage:** 12 VAC/DC max. 2 VDC min.
- **Current:** 10mA AC/DC max. 100uA DC min.
- **Insulation Resistance:** 100MΩ at 100V
- **Bounce Time:** ≦5ms
- **Life:** > 1 million operations
- **Initial Contact Resist.:** <200MΩ (25MΩ typical)
- **Total Travel:** 0.118” – 0.020”

## ☆ MECHANICAL DIMENSIONS

- **Dimension:** 31 x 31 x 22.3 mm (LxWxH)
- **Window Size:** 22 x 15.6 mm (LxW)
- **Active Area:** 20.14 x 13.42 mm

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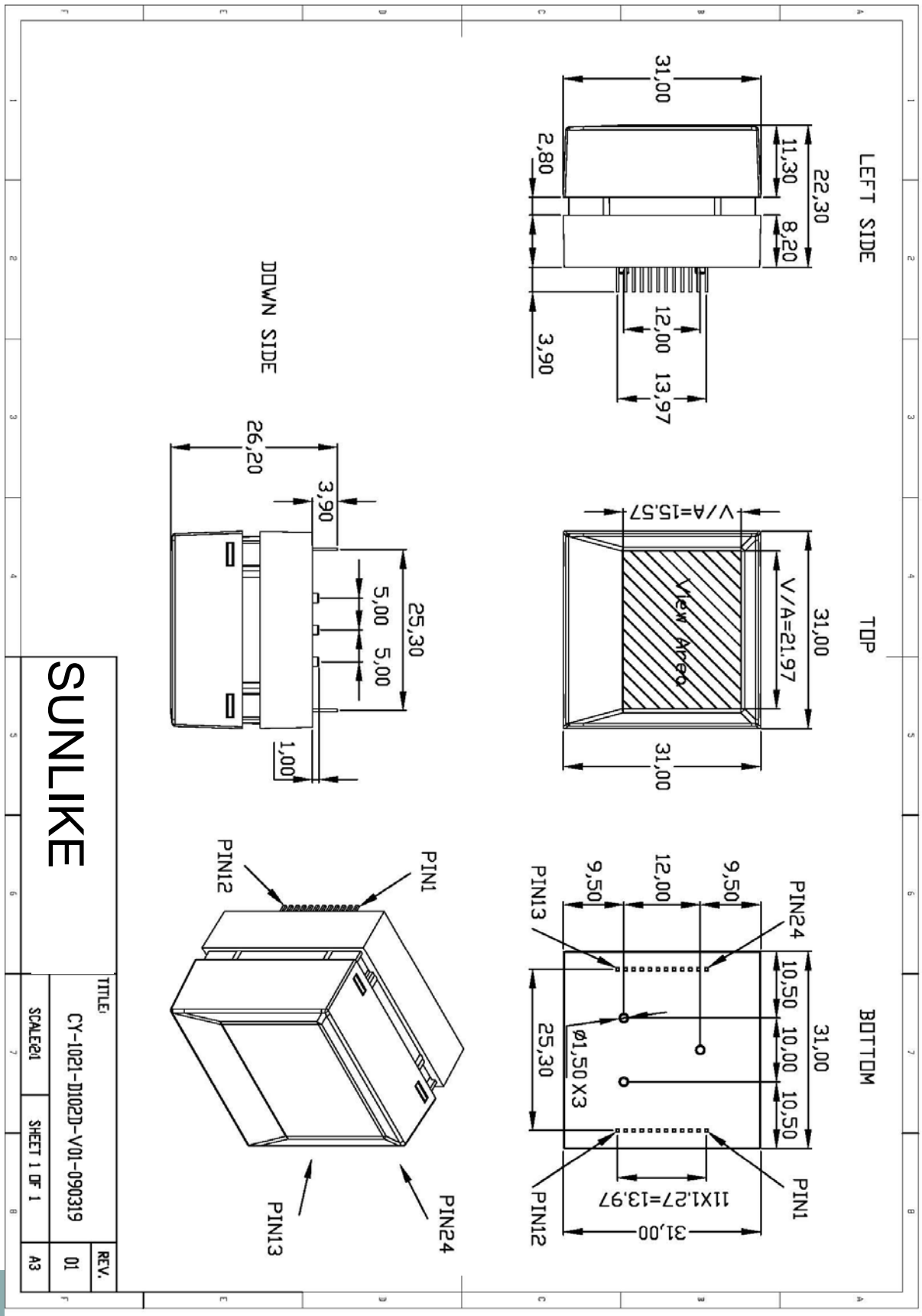

# ☆ PIN DEFINITION

<table>
<tr><th>Pin No.</th><th>Symbol</th><th>Type</th><th>Function</th></tr>
<tr><td>1</td><td>VDD</td><td>P</td><td>Power Supply for Core VDD<br>This is a voltage supply pin. It must be connected to external source.</td></tr>
<tr><td>2</td><td>VSS</td><td>P</td><td>Ground for System<br>This a ground pin. It must be connected to external source.</td></tr>
<tr><td>3</td><td>SW</td><td>I</td><td>Terminal of Switch<br>Normally Open</td></tr>
<tr><td>4</td><td>SW</td><td>I</td><td>Terminal of Switch<br>Normally Open</td></tr>
<tr><td>5<br>6</td><td>BS1<br>BS2</td><td>I</td><td>Communication Protocol Select<br>These pins are MCU interface selection input. See the following table:
<table>
<tr><th></th><th>68xx-Parallel</th><th>80xx-Parallel</th><th>Serial</th></tr>
<tr><td>BS1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>BS2</td><td>1</td><td>1</td><td>0</td></tr>
</table></td></tr>
<tr><td>7</td><td>CS#</td><td>I</td><td>Chip Select<br>This is the chip select input. The chip is enable for MCU communication only when CS# is pulled low.</td></tr>
<tr><td>8</td><td>RES#</td><td>I</td><td>Power Reset for Controller and Drive<br>This is reset signal input. When the pin is low , initialization of the chip is executed.</td></tr>
<tr><td>9</td><td>D/C#</td><td>I</td><td>Data/ Command Control<br>This pin is Data/Command control pin. When the pin is pulled high, the input at D0~D7 is treated as display data. When the pin is pulled low, the input at D0~D7 will be transferred to the command register.</td></tr>
<tr><td>10</td><td>WR#<br>(R/W#)</td><td>I</td><td>Write or Read/Write Select<br>When 80xx interface mode is selected, the pin will be the Write (WR#) input.<br>When interfacing to a 68xx-series microprocessor, the pin will be used as Read/Write (R/W#) selection input. Pull this pin to "High" for read mode and pull it to "Low" for write mode.</td></tr>
<tr><td>11</td><td>RD#(E)</td><td>I</td><td>Read or Read/Write Enable<br>When 80xx interface mode is selected, the pin will be the Read (RD#) input.<br>When interfacing to a 68xx-series microprocessor, the pin will be used as the Enable (E) signal. Read/Write operation is initiated when this pin is pulled high and the CS# is pulled low.</td></tr>
</table>

## ☆ PIN DEFINITION

| | | | |
|---|---|---|---|
| 12 | NC | - | **Reserved Pin** |
| 13~20 | D0~D7 | I/O | **Host Data Input /Output Bus**<br>These pins are 8-bit bi-directional data bus to be connected to the microprocessor's data bus. When serial mode is selected, D1 will be the serial data input SDIN and the D0 will be the serial clock input SCLK. |
| 21 | VSS | P | **Ground for System**<br>This a ground pin. It must be connected to external source. |
| 22 | VCC-CTL | I | **OLED Driver Power Supply ON/ OFF Control**<br>When this pin is pulled high, the panel power supply will be turned ON.<br>When this pin is pulled low, the panel power supply will be turned OFF. |
| 23 | NC | - | **Reserved Pin** |
| 24 | VCC | P | **OLED Driver Power Supply Output**<br>This pin is OLED driver power supply output. When VCC-CTL is pulled high, the pin will be output about 14V voltage. |

## ★ DC CHARACTERISTICS

| Characteristics | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Supply Voltage | $V_{DD}$ | | 2.4 | 2.8 | 3.5 | V |
| Driver supply Voltage | $V_{CC}$ | | - | 14.0 | - | V |
| High Level Input | $V_{IH}$ | $I_{out}$=100μA, 3.3MHz | 0.8x$V_{DD}$ | - | $V_{DD}$ | V |
| Low Level Input | $V_{IL}$ | $I_{out}$=100μA, 3.3MHz | 9 | - | 0.2xVDD | V |
| High Level Output | $V_{OH}$ | $I_{out}$=100μA, 3.3MHz | 0.9x$V_{DD}$ | - | $V_{DD}$ | V |
| Low Level Output | $V_{OL}$ | $I_{out}$=100μA, 3.3MHz | 0 | - | 0.1x$V_{DD}$ | V |