

# WINSTAR Display

## OLED SPECIFICATION

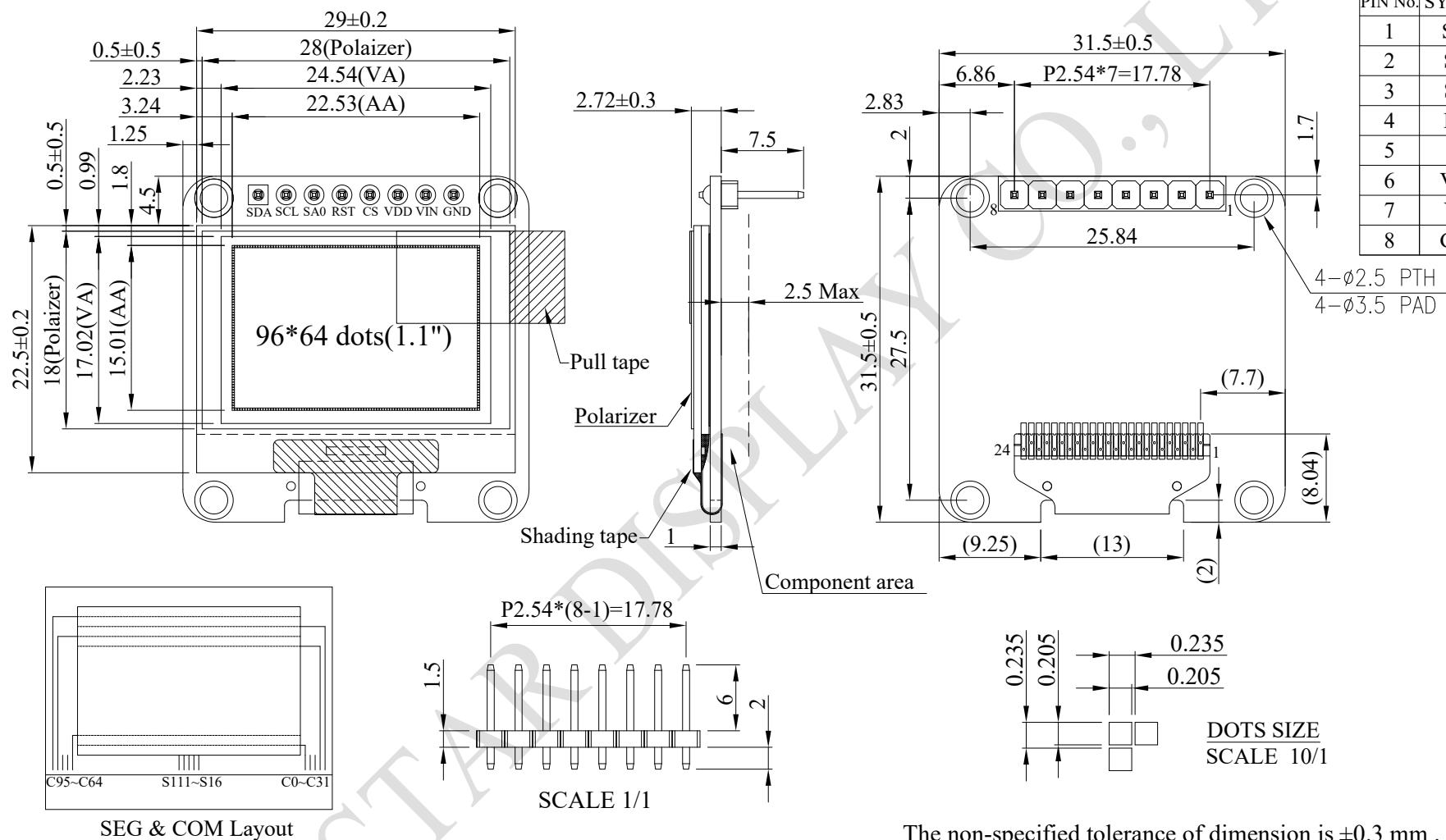
Model No:

**WEA009664B**

## General Specification

| Item             | Dimension         | Unit |
|------------------|-------------------|------|
| Dot Matrix       | 96 x 64 Dots      | —    |
| Module dimension | 31.5x 31.5 x 2.72 | mm   |
| Active Area      | 22.53 x 15.01     | mm   |
| Pixel Size       | 0.205 x 0.205     | mm   |
| Pixel Pitch      | 0.235 x 0.235     | mm   |
| Display Mode     | Passive Matrix    |      |
| Display Color    | Monochrome        |      |
| Gray scale       | 4 bits            |      |
| Drive Duty       | 1/64 Duty         |      |
| IC               | SSD1327           |      |
| Interface        | SPI               |      |
| Size             | 1.1 inch          |      |

# Contour Drawing & Block Diagram



The non-specified tolerance of dimension is  $\pm 0.3$  mm .

## 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    |                                                                                                                                                                          |
| 3   | SA0    | This pin is Data/Command control pin connecting to the MCU.                                                                                                              |
| 4   | RST    | This pin is reset signal input. When the pin is pulled LOW, initialization of the chip is executed.<br>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.                                                                                                                                                    |

## Absolute Maximum Ratings

| Parameter                | Symbol | Min  | Max  | Unit |
|--------------------------|--------|------|------|------|
| Supply Voltage for Logic | VDD    | 1.65 | 3.30 | 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    | —         | 2.8              | 3.0 | 3.2              | V    |
| Supply Voltage for Logic (5V)     | VIN    | —         | 4.8              | 5.0 | 5.2              | V    |
| Input High Volt.                  | VIH    | —         | $0.8 \times VDD$ | —   | VDD              | V    |
| Input Low Volt.                   | VIL    | —         | 0                | —   | $0.2 \times VDD$ | V    |
| Output High Volt.                 | VOH    | —         | $0.9 \times VDD$ | —   | VDD              | V    |
| Output Low Volt.                  | VOL    | —         | 0                | —   | $0.1 \times VDD$ | V    |
| 50% Check Board operating Current | IDD    | VDD=3.0V  | —                | 55  | 100              | mA   |