

WINSTAR Display

OLED SPECIFICATION

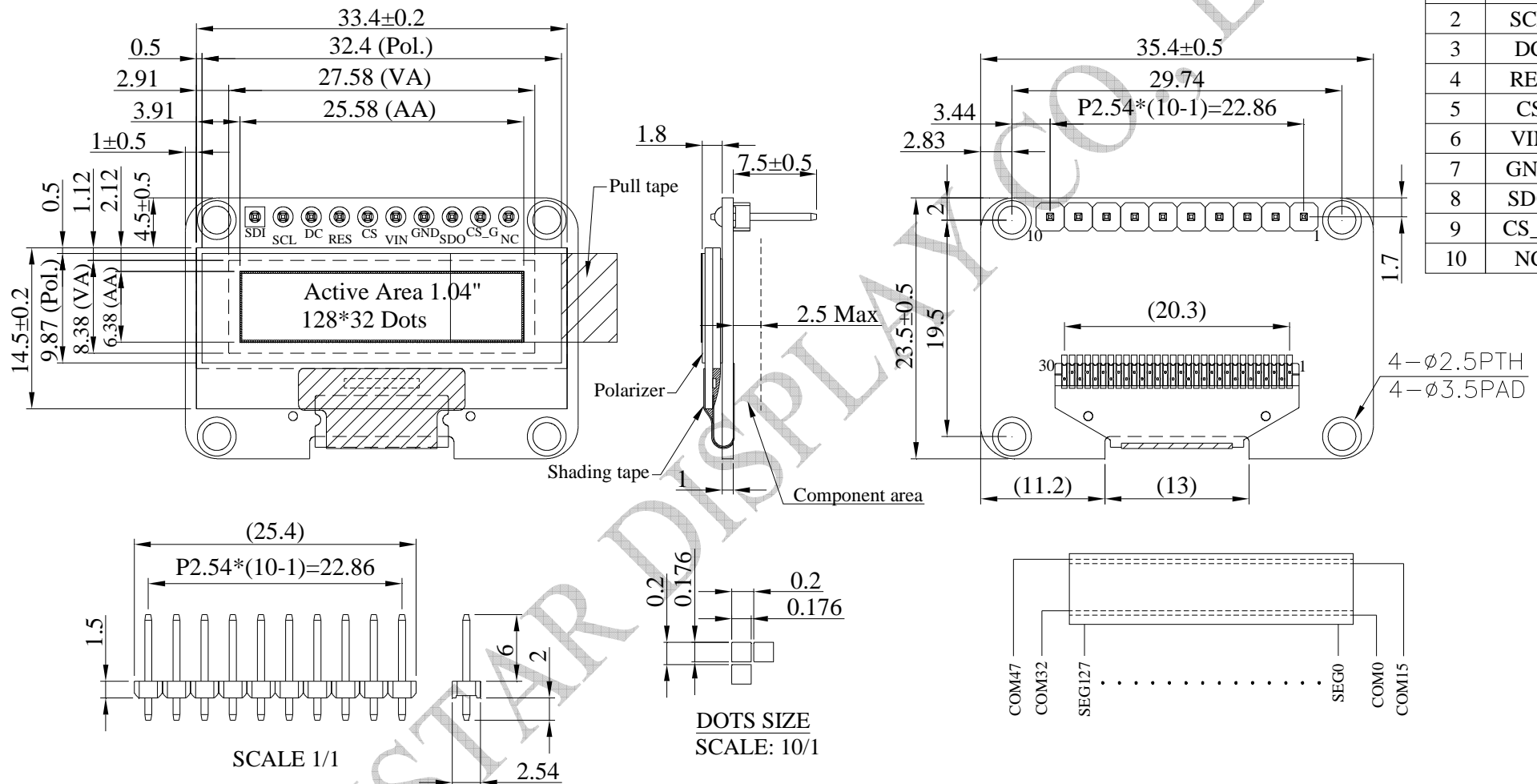
Model No:

WEA012832EWPP3N00000

General Specification

| Item | Dimension | Unit |
|------------------|-------------------|------|
| Dot Matrix | 128 x 32 Dots | — |
| Module dimension | 35.4 × 23.5 × 1.8 | mm |
| Active Area | 25.58×6.38 | mm |
| Pixel Size | 0.176 × 0.176 | mm |
| Pixel Pitch | 0.200× 0.200 | mm |
| Display Mode | Passive Matrix | |
| Display Color | Monochrome | |
| Drive Duty | 1/32Duty | |
| IC | SSD1306BZ | |
| Interface | SPI, Optional I2C | |
| Size | 1.04 inch | |

Contour Drawing & Block Diagram



| PIN | SYMBOL |
|-----|--------|
| 1 | SDI |
| 2 | SCL |
| 3 | DC |
| 4 | RES |
| 5 | CS |
| 6 | VIN |
| 7 | GND |
| 8 | SDO |
| 9 | CS_G |
| 10 | NC |

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

Interface Pin Function

| No. | Symbol | Function |
|-----|--------|---|
| 1 | SDI | Supply Voltage for Logic. The 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. |
| 2 | SCL | |
| 3 | DC | Supply Voltage for Logic. 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 | RES | Supply Voltage for Logic. 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 | Supply Voltage for Logic. This pin is the chip select input. (active LOW). |
| 6 | VIN | Input voltage for 2.8 ~ 5.0V power supply. |
| 7 | GND | This is a ground pin. |
| 8 | SDO | Supply Voltage for Logic. Serial data output for 5X16 dot matrix font. |
| 9 | CS_G | Supply Voltage for Logic. Chip enable input for 5X16 dot matrix font. |
| 10 | NC | Not connection |

Absolute Maximum Ratings

| Parameter | Symbol | Min | Max | Unit |
|--------------------------|--------|------|-----|------|
| Supply Voltage for Logic | VDD | -0.3 | 4 | V |
| Supply Voltage for input | VIN | 2 | 7 | 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 Input | VIN | — | 2.8 | 3.0 | 5.2 | V |
| Supply Voltage for Logic | VDD | — | 2.8 | 3.0 | 3.2 | 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 | ICC | Vin=3V | — | 13.0 | 26.0 | mA |