WINSTAR Display

# OLED SPECIFICATION

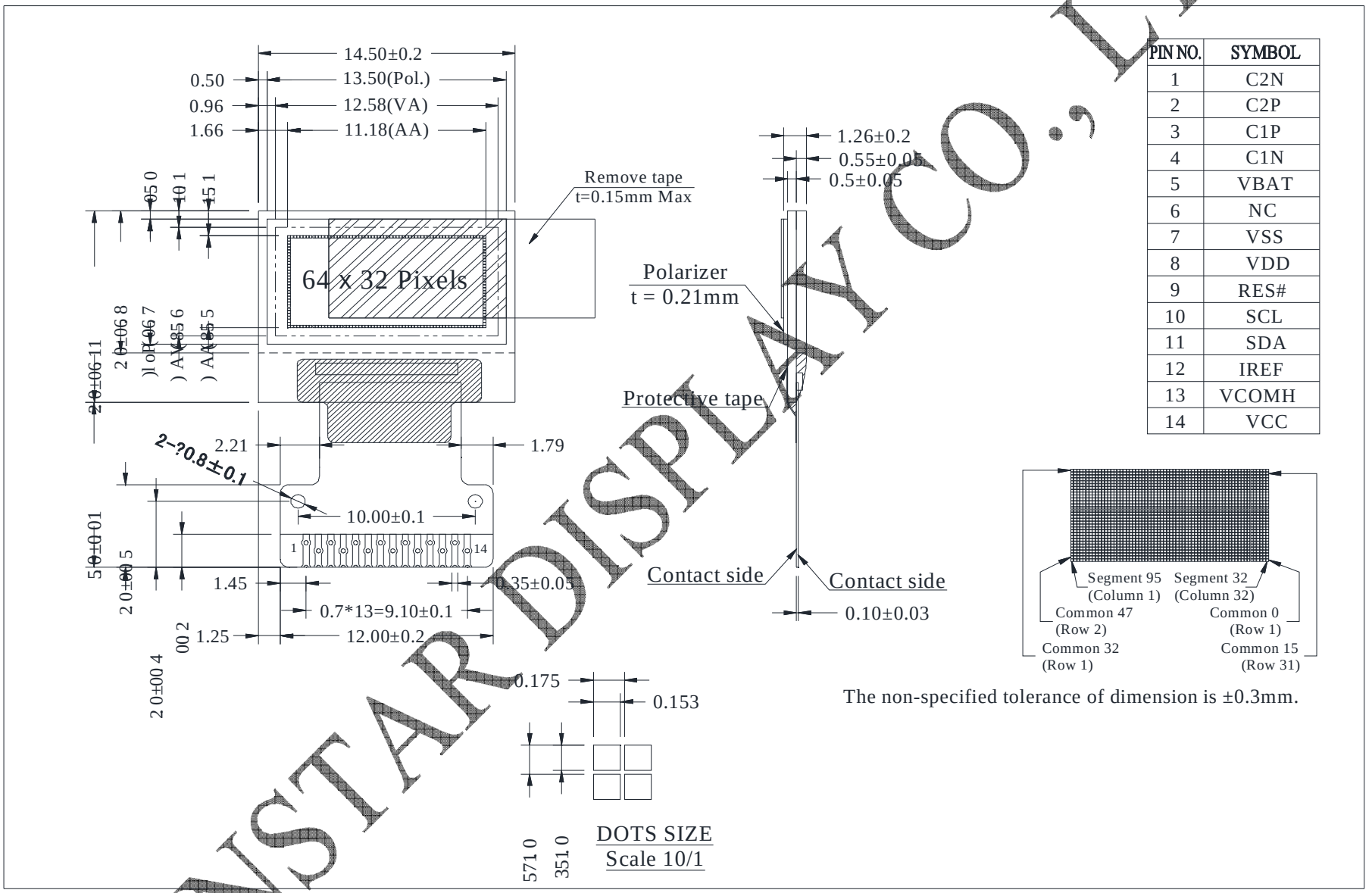
Model No: ***WEO6432X#A00-FC***

## General Specification

| Item | Dimension | Unit |
|---|---|---|
| Dot Matrix | 64 x 32 Dots | — |
| Module dimension | 14.5 × 11.6 × 1.26 | mm |
| Active Area | 11.18 × 5.58 | mm |
| Pixel Size | 0.153 × 0.153 | mm |
| Pixel Pitch | 0.175 × 0.175 | mm |
| Display Mode | Passive Matrix | |
| Display Color | Sky Blue / White | |
| Drive Duty | 1/32Duty | |
| IC | SSD1306BZ | |

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# Contour Drawing & Block Diagram




| PIN NO. | SYMBOL |
|---|---|
| 1 | C2N |
| 2 | C2P |
| 3 | C1P |
| 4 | C1N |
| 5 | VBAT |
| 6 | NC |
| 7 | VSS |
| 8 | VDD |
| 9 | RES# |
| 10 | SCL |
| 11 | SDA |
| 12 | IREF |
| 13 | VCOMH |
| 14 | VCC |




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

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# Interface Pin Function

| No. | Symbol | Function |
|---|---|---|
| 1 | C2N | *Positive Terminal of the Flying Inverting Capacitor Negative Terminal of the Flying Boost Capacitor* The charge-pump capacitors are required between the terminals. They must be floated when the converter is not used. |
| 2 | C2P | |
| 3 | C1P | |
| 4 | C1N | |
| 5 | VBAT | *Power Supply for DC/DC Converter Circuit*<br>This is the power supply pin for the internal buffer of the DC/DC voltage converter. It must be connected to external source when the converter is used. It should be connected to VDD when the converter is not used. |
| 6 | NC | No connection. |
| 7 | VSS | *Ground of Logic Circuit*<br>This is a ground pin. It acts as a reference for the logic pins. It must be connected to external ground. |
| 8 | VDD | *Power Supply for Logic*<br>This is a voltage supply pin. It must be connected to external source. |
| 9 | RES# | *Power Reset for Controller and Driver*<br>*This pin is reset signal input. When the pin is low, initialization of the chip is executed.* |
| 10 | SCL | *Host Data Input/Output Bus*<br>When serial mode is selected, D1 will be the serial data input SDIN and D0 will be the serial clock input SCLK. When I2C mode is selected, D2 & D1 should be tired together and serve as SDAout & SDAin in application and D0 is the serial clock input SCL. |
| 11 | SDA | |
| 12 | IREF | *Current Reference for Brightness Adjustment*<br>This pin is segment current reference pin. A resistor should be connected between this pin and VSS. Set the current lower than 12.5μA. |
| 13 | VCOMH | *Voltage Output High Level for COM Signal*<br>This pin is the input pin for the voltage output high level for COM signals. A capacitor should be connected between this pin and VSS. |
| 14 | VCC | *Power Supply for OEL Panel*<br>This is the most positive voltage supply pin of the chip. A stabilization capacitor should be connected between this pin and VSS when the converter is used. It must be connected to external source when the converter is not used. |

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# Absolute Maximum Ratings

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

# 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 | — | 7.0 | 7.5 | 7.8 | V |
| Input High Volt. | VIH | — | 0.8×VDD | — | VDDIO | V |
| Input Low Volt. | VIL | — | 0 | — | 0.2×VDD | V |
| Output High Volt. | VOH | — | 0.9×VDD | — | VDDIO | V |
| Output Low Volt. | VOL | — | 0 | — | 0.1×VDD | V |
| 50% Check Board operating Current | ICC | VCC=7.5V | — | 5.0 | 20.0 | mA |

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