WINSTAR Display

# OLED SPECIFICATION

Model No:

***WEA012864S#LAP3N00000-FC***

first FC components

# SPECIFICATION Version: C

| | |
|---|---|
| CUSTOMER : | |
| MODULE NO. : | WEA012864S#LAP3N00000-FC |

| | |
|---|---|
| **APPROVED BY:** ( FOR CUSTOMER USE ONLY ) | |

| SALES BY | APPROVED BY | CHECKED BY | PREPARED BY |
|---|---|---|---|
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| RELEASE DATE: | | | |

■APPROVAL FOR SPECIFICATIONS ONLY

□APPROVAL FOR SPECIFICATIONS AND SAMPLE

# MODEL NO：

| RECORDS OF REVISION | | | DOC. FIRST ISSUE |
|---|---|---|---|
| VERSION | DATE | REVISED PAGE NO. | SUMMARY |
| 0 | 2020/11/19 | | First release |
| A | 2021/02/25 | | Modify Precautions in use of OLED Modules |
| B | 2021/10/27 | | Modify OLED Lifetime Conditions Description |
| C | 2022/10/04 | | Modify Reliability Test and measurement conditions |

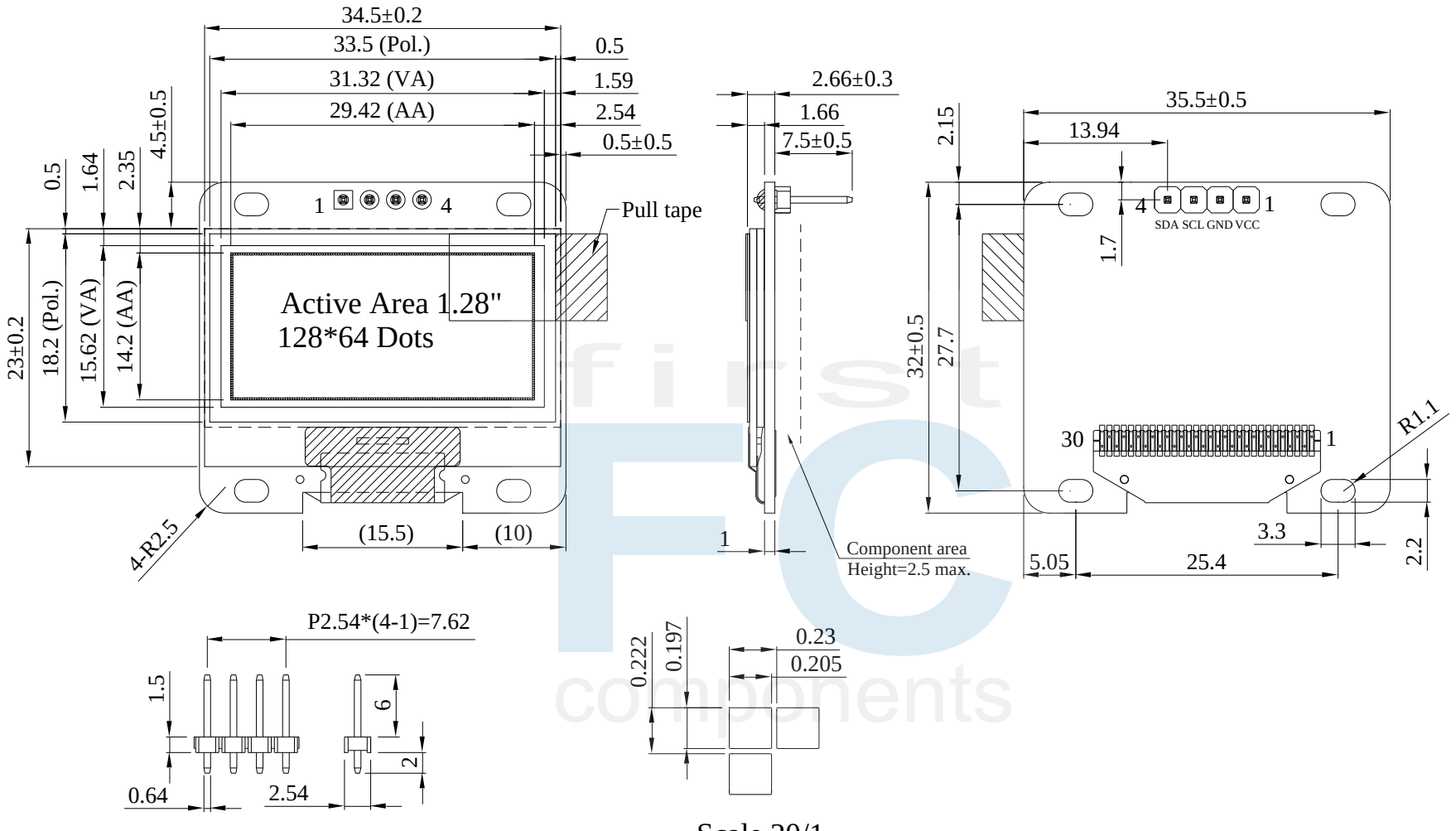
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# General Specification

| Item | Dimension | Unit |
|---|---|---|
| Dot Matrix | 128 × 64 | — |
| Module dimension | 35.50 × 32.00 × 2.66 | mm |
| Active Area | 29.42 × 14.20 | mm |
| Pixel Size | 0.205 × 0.197 | mm |
| Pixel Pitch | 0.230 × 0.222 | mm |
| Display Mode | Passive Matrix | |
| Display Color | Sky blue | |
| Drive Duty | 1/64 Duty | |
| Controller IC | SH1106 | |
| Interface | I2C | |
| Size | 1.28 inch | |

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# Contour Drawing & Block Diagram



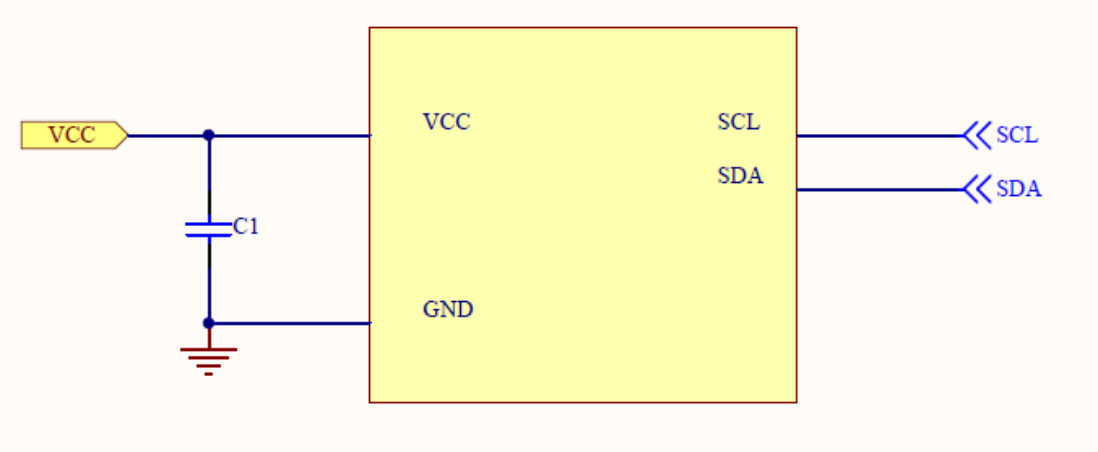

| PIN | SYMBOL |
|---|---|
| 1 | VCC |
| 2 | GND |
| 3 | SCL |
| 4 | SDA |

Scale 1/1

Scale 20/1

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

# Application recommendations




C1: 1.0uF (1)

**Note**
(1) The capacitor value is recommended value. Select appropriate value against module application.

# Interface Pin Function

| No. | Symbol | Function |
|---|---|---|
| 1 | VCC | Power supply input |
| 2 | GND | Ground |
| 3 | SCL | The serial clock input |
| 4 | SDA | The serial data input |

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# Absolute Maximum Ratings

| Parameter | Symbol | Min | Max | Unit | Notes |
|---|---|---|---|---|---|
| Supply Voltage for Logic | VCC | 1.65 | 5.5 | V | 1,2 |
| Operating Temperature | TOP | -40 | +80 | °C | — |
| Storage Temperature | TSTG | -40 | +85 | °C | — |

Note 1: All the above voltages are on the basis of “VSS = 0V”.

Note 2: When this module is used beyond the above absolute maximum ratings, permanent breakage of the module may occur. Also, for normal operations, it is desirable to use this module under the conditions according to Section 6.“Optics & Electrical Characteristics”. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate.

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# Electrical Characteristics

## DC Electrical Characteristics

| Item | Symbol | Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Supply Voltage for Logic | VCC | — | 2.9 | 3.3 | 5.2 | V |
| Input High Volt. | VIH | — | 0.8×VCC | — | VCC | V |
| Input Low Volt. | VIL | — | 0 | — | 0.2×VCC | V |
| Output High Volt. | VOH | — | 0.8×VCC | — | VCC | V |
| Output Low Volt. | VOL | — | 0 | — | 0.2×VCC | V |
| 50% Check Board operating Current | ICC | VCC =3.3V | - | 25 | 37.5 | mA |

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