Next Vision Display
Brighten The Future

# NEXT VISION DISPLAY

## SPECIFICATION

**CUSTOMER :** _____

**MODULE NO.:** NL017GN001WS

| | |
|---|---|
| Version | 0 |
| Engineer | |
| Date | 2022/11/03 |

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| Customer: |
|---|
| Approved by |

**NEXT VISION DISPLAY CO., LTD.**

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Represented by:

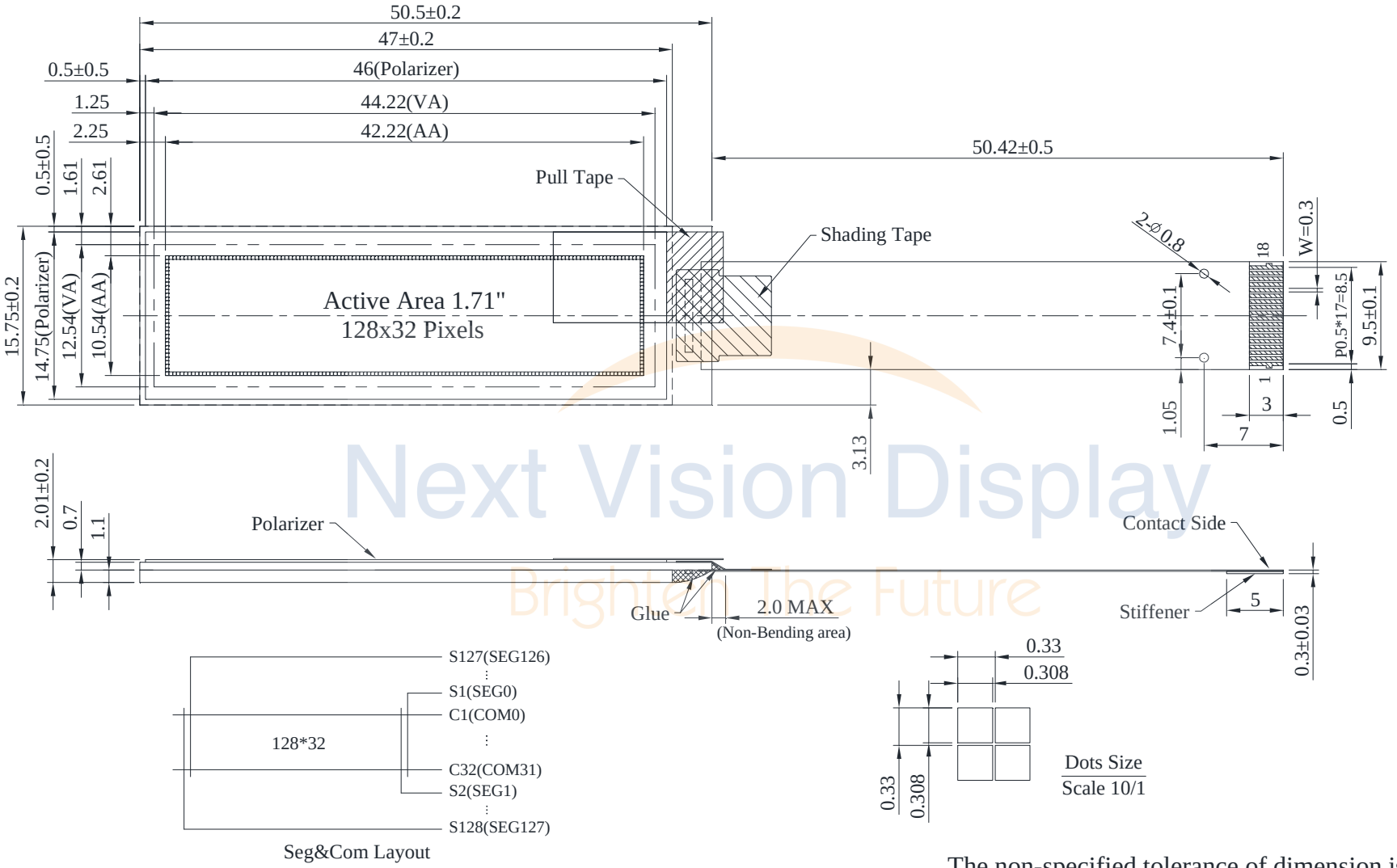
first FC components
**FIRST Components s.r.l.**
www.first-components.com
sales@first-components.com
+39 0332 1888005

# General Specification

| Item | Dimension | Unit |
|---|---|---|
| Dot Matrix | 128 x 32 Dots | – |
| Module dimension | 50.50 x 15.75 x 2.01 | mm |
| Active Area | 42.22 x 10.54 | mm |
| Pixel Size | 0.308 x 0.308 | mm |
| Pixel Pitch | 0.33 x 0.33 | mm |
| Display Mode | Passive Matrix | |
| Display Color | Monochrome | |
| Drive Duty | 1/32 Duty | |
| IC | CH1115 | |
| Interface | SPI,I2C | |
| Size | 1.71 inch | |

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# Contour Drawing & Block Diagram

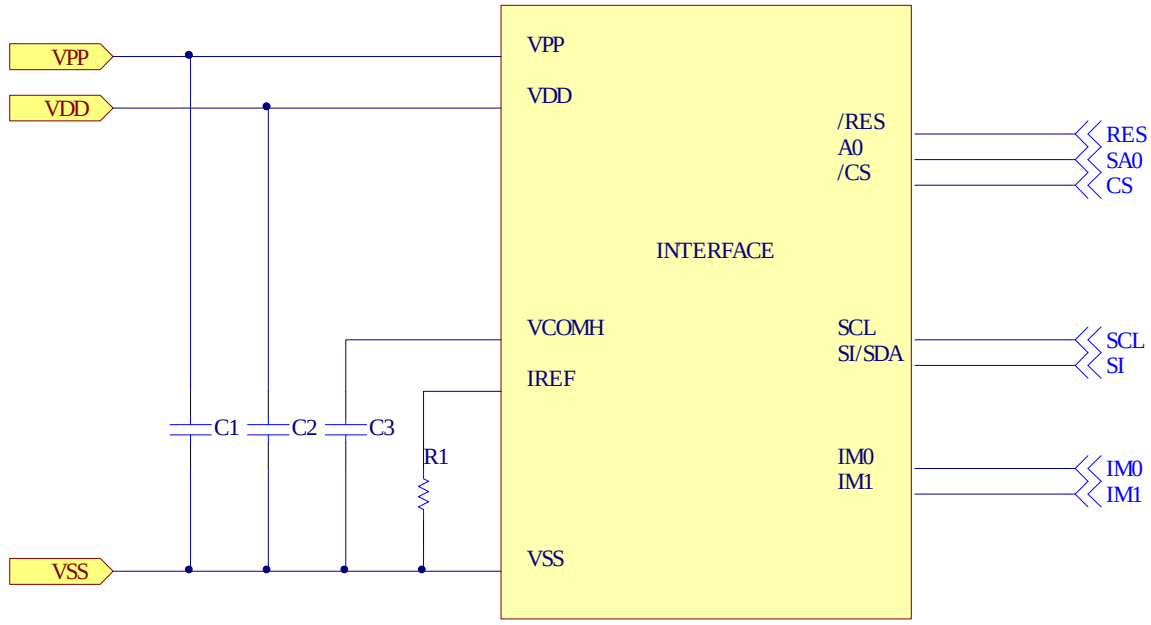



| PIN | SYMBOL |
|---|---|
| 1 | N.C.(GND) |
| 2 | VPP |
| 3 | VSS |
| 4 | VSS |
| 5 | VDD |
| 6 | /CS |
| 7 | /RES |
| 8 | A0 |
| 9 | SCL |
| 10 | SI/SDA |
| 11 | NC |
| 12 | IREF |
| 13 | VCOMH |
| 14 | VPP |
| 15 | IM0 |
| 16 | IM1 |
| 17 | VSS |
| 18 | N.C.(GND) |

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

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## Application recommendations




Recommended components：

C1, C2,C3：4.7uF

Bus Interface selection: (Must be set the IM[0:1], refer to item 4)

3 or 4-wire SPI, and I2C

Voltage at IREF = VPP – 3.5V. For VPP = 12V, IREF = 18.75uA:

(R1 + 150K) = (Voltage at IREF - VSS) / IREF

R1 = [(12 - 3.5) V / 18.75uA] - 150K ohm

≧ 303K ohm(2)

R1 recommends 510K ohm.

Note:
(1).The capacitor value is recommended value. Select appropriate value against module application.
(2). Minimum value. When OLED product application, then R1 must be greater than the calculated value.

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# Interface Pin Function

| No. | Symbol | Function |
|---|---|---|
| 1 | N.C. (GND) | Dummy Pin<br>This is dummy pin. Do not group or short NC pins together. |
| 2 | VPP | OLED panel power supply. |
| 3 | VSS | This is a ground pin. |
| 4 | VSS | This is a ground pin. |
| 5 | VDD | Power Supply for Logic |
| 6 | $\overline{CS}$ | This pad is the chip select input. When $\overline{CS}$ = “L”, then the chip select becomes active, and data/command I/O is enabled. |
| 7 | $\overline{RES}$ | This is a reset signal input pad. When $\overline{RES}$ is set to “L”, the settings are initialized. The reset operation is performed by the $\overline{RES}$ signal level. |
| 8 | A0 | This is the Data/Command control pad that determines whether the data bits are data or a command.<br>In I2C interface, this pad serves as SA0 to distinguish the different address of OLED driver. |
| 9 | SCL | The serial clock input pad |
| 10 | SI/SDA | The serial data input pad |
| 11 | NC | Dummy Pin |
| 12 | IREF | This is a segment current reference pad. A resistor should be connected between this pad and VSS. Set the current at 18.75 $\mu$ A. |
| 13 | VCOMH | The pin is for COM signal deselected voltage level.<br>A capacitor should be connected between this pin and VSS. |
| 14 | VPP | OLED panel power supply. |

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<table>
<tr><td>15</td><td>IM0</td><td rowspan="2">These are the MPU interface mode select pads.<table><tr><td></td><td>3SPI</td><td>4SPI</td><td>I2C</td></tr><tr><td>IM0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>IM1</td><td>0</td><td>0</td><td>1</td></tr></table></td></tr>
<tr><td>16</td><td>IM1</td></tr>
<tr><td>17</td><td>VSS</td><td>This is a ground pin.</td></tr>
<tr><td>18</td><td>N.C.<br>(GND)</td><td>Dummy Pin<br>This is dummy pin. Do not group or short NC pins together.</td></tr>
</table>

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