

August 19, 2024

## **Engineering Change Notification**

This notice is to inform you of a change to the following OLED products:

NHD-2.7-12864WDW3 NHD-2.7-12864WDW3M-CTP NHD-2.7-12864WDY3-SL20 NHD-2.7-12864WDW3-CTP NHD-2.7-12864WDY3 NHD-2.7-12864WDY3M-CTP NHD-2.7-12864WDY3-CTP

NHD-2.7-12864WDW3-P NHD-2.7-12864WDY3-M

The boost converter IC used in the manufacturing of these displays has been discontinued by the IC manufacturer. This IC has been replaced by a new boost converter with a lower maximum input voltage.

This change will only affect customers using jumper option #1 to power the boost converter separately from the display. The previous voltage range for BC\_ $V_{DD}$  was **3V – 12V**. The new voltage range for BC  $V_{DD}$  is **3V – 5.5V**.

| Jumper Option #1 - Independent Supply Voltage for Boost Converter (BC_VDD) |       |      |   |  |  |  |  |
|--|-------|------|---|--|--|--|--|
| R4   | R5    | R7   | Description   |  |  |  |  |
| Open   | Close | Open | Boost converter + OLED panel are powered from BC_ $V_{DD}$ (pin #3). OLED controller is still powered from $V_{DD}$ (pin #2). This allows for increased efficiency through the boost converter by allowing a higher supply voltage at its input, BC_ $V_{DD}$ (pin #3). |  |  |  |  |

|   |                 |                                   |     |     | ,   |    |  |
|---|-----------------|-----------------------------------|-----|-----|-----|----|--|
| Jumper Option #1                            |                 |                                   |     |     |     |    |  |
| Supply Voltage for Module                   | V <sub>DD</sub> | -                                 | 3.0 | 3.3 | 3.5 | V  |  |
| Supply Current for Module                   | I <sub>DD</sub> | V <sub>DD</sub> =3.3V             | -   | 190 | 305 | μΑ |  |
| Supply Voltage for Boost Converter BC_V     |                 | -                                 | 3.0 | 5.0 | 5.5 | V  |  |
| Supply Current for Boost Converter   IDD BC |                 | BC_V <sub>DD</sub> =5.0V, 100% ON | -   | 200 | 215 | mA |  |

This change will not affect customers who are using the default jumper setting or jumper option #2.

The new displays will be labeled with a different revision control number on the back of the PCB, underneath the flex cable. See example below.

| Old Design    | New Design          |  |  |  |
|---------------|---------------------|--|--|--|
| NHD-2.7-PC82. | NHD-2. 7-PCB2.Rev1A |  |  |  |

We understand that every customer's application is unique, and therefore recommend you test and validate samples of the updated design.

Samples may be purchased by contacting us at <a href="mailto:nhsales@newhavendisplay.com">nhsales@newhavendisplay.com</a>. When ordering samples, please specify that you would like to receive the new version.

Please visit <u>www.newhavendisplay.com</u> or email <u>nhtech@newhavendisplay.com</u> for further information or assistance with this change.

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