

Product Transition Guide

Old PN: NHD-1.69-160128G | New PN: NHD-1.69-160128B

The new 1.69" OLED display has been designed with the same mechanical footprint as the older display. However, the new OLED display is not a drop-in replacement for the old model. The new display uses the SSD1333 driver IC, which has a different command table and requires a modified pinout.

The purpose of this document is to highlight and explain the key differences that need to be accounted for when transitioning to the new 1.69" OLED display model.

Design Improvements

- Controller IC upgraded to SSD1333
 - Supports a wider input voltage range
 - Adds support for I²C interface
- Reduced pin count from 35 pins to 30 pins

Display Models

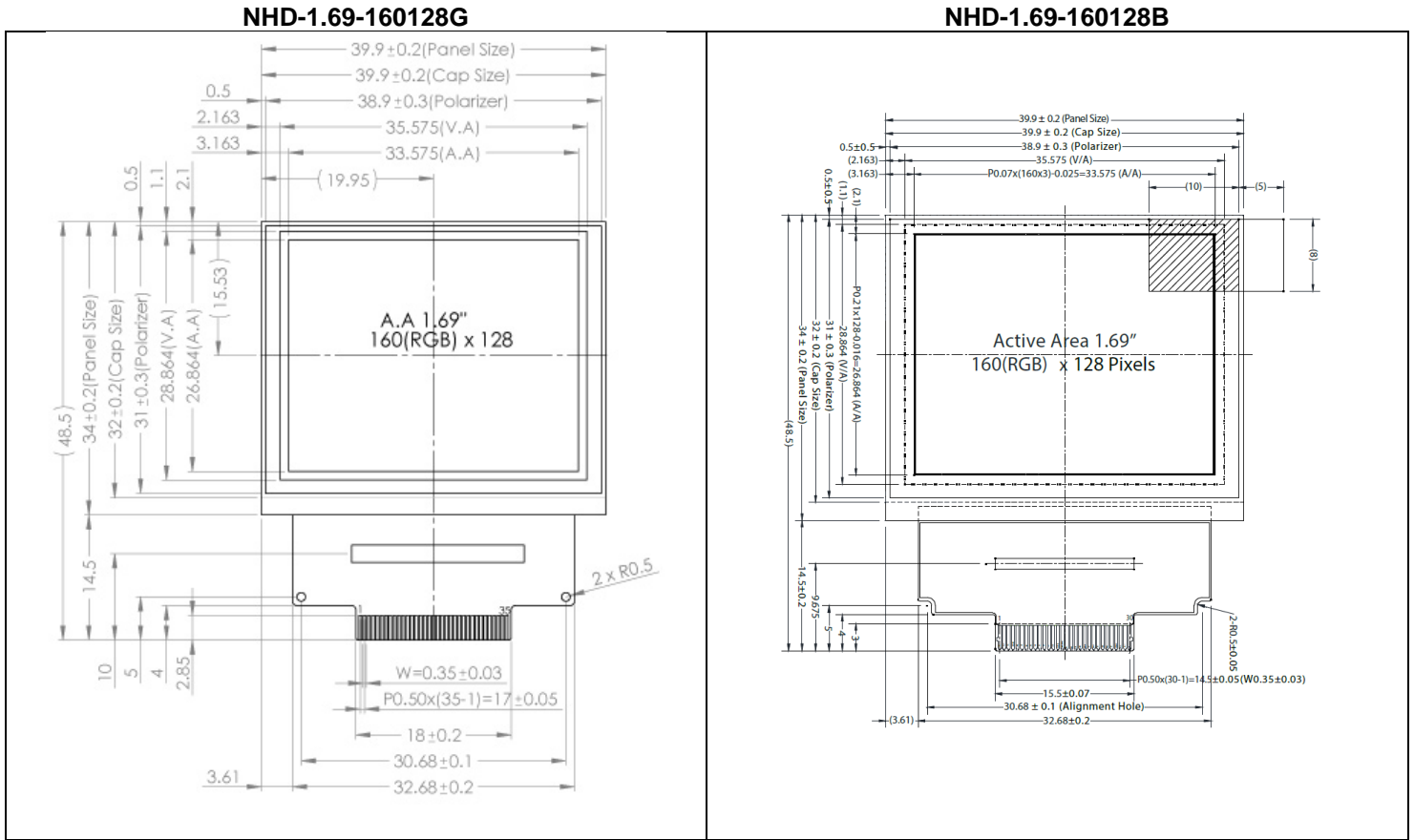
	NHD-1.69-160128G	NHD-1.69-160128B
Display Type	Graphic OLED	Graphic OLED
Display Color	Full color, 262k colors	Full color, 262k colors
Resolution	160 x 128	160 x 128
Outer Dimensions	39.9 x 34 x 1.6 mm	39.9 x 34 x 1.6 mm
Active Area	33.575 x 26.864 mm	33.575 x 26.864 mm
FPC Length	14.5mm	14.5mm
FPC Pitch	35 pins 0.5mm pitch	30 pins 0.5mm pitch
Pinout	See below	See below
Driver IC	SEPS525	SSD1333
Software Timing	See datasheet	See datasheet
Interface	8-bit 6800 8-bit 8080 4-wire SPI 3-wire SPI 6-bit RGB	8-bit 6800 8-bit 8080 4-wire SPI I ² C
Logic Supply Voltage	2.6V – 3.3V	1.65V – 3.5V
Display Supply Voltage	13.5V – 14.5V	13.5V – 14.5V
Brightness	75 cd/m ²	100 cd/m ²



Pinout Comparison

	NHD-1.69-160128G	NHD-1.69-160128B
Pin #	Signal	Signal
1	GND	NC
2	V _{SDH}	VLSS
3	V _{DDH}	VSL
4	V _{SSH}	VCOMH
5	I _{REF}	VCC
6	OSCA1	D7
7	OSCA2	D6
8	V _{DDIO}	D5
9	NC	D4
10	V _{SYNC}	D3
11	H _{SYNC}	D2
12	DOTCLK	D1
13	ENABLE	D0
14	CPU	E
		RD#
15	PS	R/W#
		WR#
16	D17	BS1
17	D16	BS2
18	D15	CS#
19	D14	D/C#
20	D13	RES#
21	D12	FR
22	D11	VDD
23	D10	VSS
24	D9	IREF
25	RS	VCC
26	CSB	VP
27	E	VCOMH
	RDB	
28	R/W	VSL
	WRB	
29	RESETB	VLSS
30	V _{SS}	NC
31	V _{DD}	-
32	V _{SSH}	-
33	V _{DDH}	-
34	V _{SDH}	-
35	GND	-

Mechanical Comparison



Software

- Initialization
 - Please refer to the initialization section of the [example code](#) for this display
- Command Table
 - Please refer to the command table on pages 8-13 of the [SSD1333 appendix](#)

For additional support on transitioning to our new OLED display, or questions about other products, please contact us through any of our technical support channels listed below:

Email: nhtech@newhavendisplay.com

Online Support Center: [Contact an Engineer](#)

Forum: [Community Forum](#)

Phone: (847) 844-8795

