

August 31, 2022

Engineering Change Notification

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

NHD-3.5-320240FT-CSXP-T	NHD-5.0-800480FT-CTXL-CTP	NHD-7.0-800480FT-CSXV-T
NHD-4.3-480272FT-CSXP-CTP	NHD-5.0-800480FT-CTXL-T	NHD-7.0-800480FT-CTXL-CTP
NHD-4.3-480272FT-CSXP-T	NHD-7.0-800480FT-CSXN-CTP	NHD-7.0-800480FT-CTXL-T
NHD-4.3-800480FT-CSXP-CTP	NHD-7.0-800480FT-CSXN-T	
NHD-5.0-800480FT-CSXP-CTP	NHD-7.0-800480FT-CSXV-CTP	

The FAN5333BSX LED driver IC has been discontinued by the IC manufacturer. This IC has been replaced by SGM3766YTN5G in all our TFT EVE2 display designs. The resistor divider within the driver circuit has also changed to set the appropriate output current for the display backlight.

While this IC change may not affect most users who drive the display backlight at full brightness (100% duty cycle), it could affect users who implement PWM to modulate the backlight brightness. The PWM dimming frequency range for the affected display modules has changed as follows:

	MIN freq. (Hz)	MAX freq. (Hz)
Old design using FAN5333BSX	250	1,000
New design using SGM3766YTN5G	800	10,000

The SGM3766YTN5G has a documented minimum PWM frequency of 10kHz, but this IC has been proven to work down to 800Hz without any issue. Since the EVE2 FT81x controller supports a PWM frequency range of 250Hz to 10kHz, the new PWM frequency range for the EVE2 displays has been updated to fall within the minimum working value of the new LED driver IC and the maximum value of the EVE2 controller IC.

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 nhsales@newhavendisplay.com. When ordering samples, please specify that you would like to receive the new version.

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

