

19" SXGA LED BACKLIT TFT DISPLAY WITH NVIS WHITE CAPABILITY

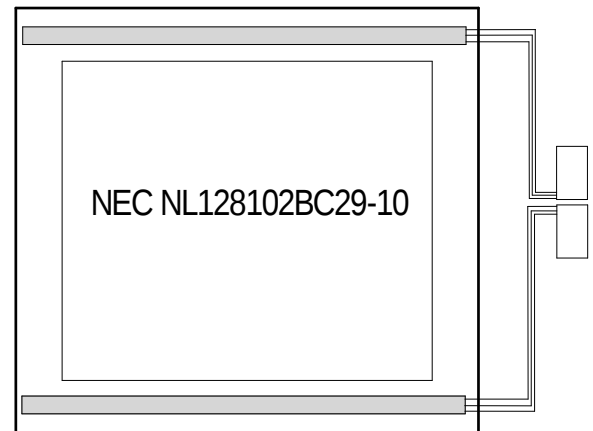
GENERAL DESCRIPTION

The ACD-2692 consists of the NEC NL128102BC29-10 SXGA TFT display modified with a high performance LED backlight capable of Day and NVIS white operation.

Performance at given brightness levels

800 cd/m² with 50.4 watts LED power (Day)
2.2 cd/m² with 8.7 watts LED power (NVIS)

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LCD PANEL HIGHLIGHTS

19" TFT Active Matrix Color
376.32 (H) mm x 301.056 (V) mm viewable area
SXGA 1280 x 1024 pixels, 16.2 M (8 bit/color)
800:1 typical contrast ratio
RoHs compliant
Color Gamut: 72% against NTSC color space
Display Mode Normally Black

For complete LCD specification (standard panel), refer to the NEC NL128102BC29-10 datasheet

LED BACKLIGHT FEATURES

Day and NVIS LED edge-light rail

Three wire connection (Typically 11 inches long), allows simple interconnect with LED driver¹

Projected lifetime > 75,000 hours

5000:1 or better dimming ratio (Day)¹

¹ For best power transfer and control, use two ACI-2580 Dual Mode Driver.

MAXIMUM RATINGS

02/17/2016

Symbol	Parameter	Value	Unit
Top ¹	Operating temperature of display (center of panel surface)	0 to +55	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +85	Deg-C
Tstg ¹	Display storage temperature	-20 to +60	Deg-C
Ifwd	LED forward current (Day)	90	mA
Ifwd	LED forward current (NVIS)	30	mA

*Maximum Ratings are those values beyond which damage may occur

¹ Per manufactures Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 75mA per bank, 4 banks per rail, 2 rails per display, Ifwd(NVIS) = 25mA per bank, 2 banks per rail, LED rail: ACR-2673, Ta = +25Deg-C, moving air (36.0 CFM), min 2hr soak

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		720	800	880	cd/m ²
Bpn	Panel Brightness (NVIS)		2.0	2.2	2.4	cd/m ²
Xd	White X coordinate (Day mode)			0.262		-
Yd	White Y coordinate (Day mode)			0.284		-
XN	White X coordinate (NVIS)			0.280		-
YN	White Y coordinate (NVIS)			0.460		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

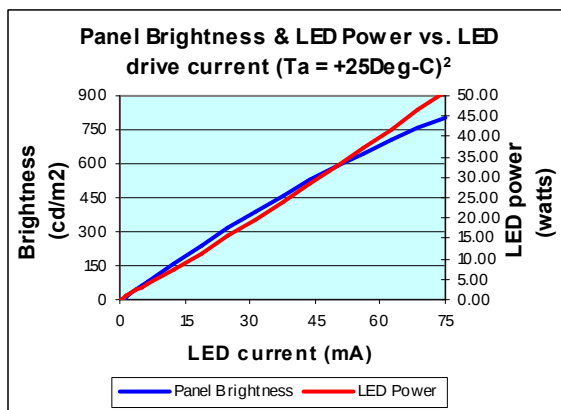
Ifwd(Day) = 75mA, Ifwd(NVIS) = 25mA, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		76	84	92	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		78	87	96	Vdc

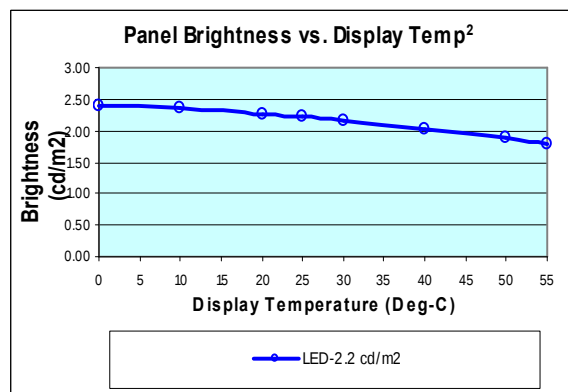
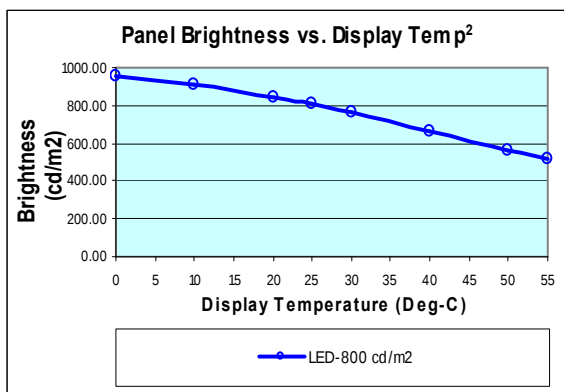
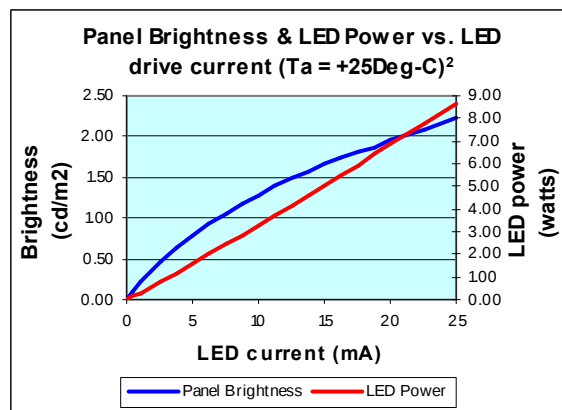
TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

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Day mode



NVIS



² Moving air (36.0 CFM)