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ACD-2161

PRODUCT DATA SHEET – PAGE 1 OF 3

8.4" XGA LED BACKLIT TFT DISPLAY WITH NVIS WHITE CAPABILITY

GENERAL DESCRIPTION

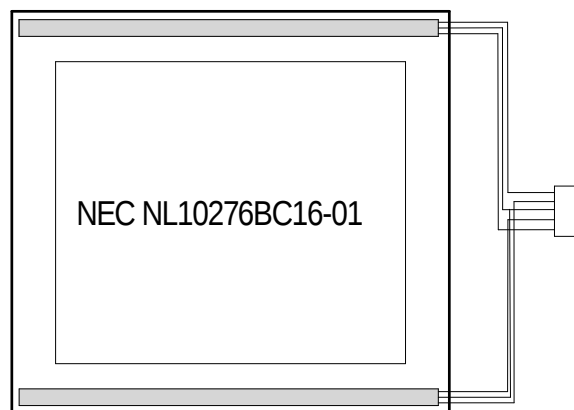
The ACD-2161 consists of the NEC NL10276BC16-01 XGA TFT display modified with a high performance LED backlight capable of Day and NVIS White.

Customer Consigned Panel.

Performance at given brightness levels

1100 cd/m² with 11.8 watts LED power (Day)
4 cd/m² with 2.7 watts LED power (NVIS)

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LCD PANEL HIGHLIGHTS

8.4" TFT Active Matrix Color
170.496 (H) mm x 127.872 (V) mm viewable area
XGA 1024 x 768 pixels, 16.8 M colors
400:1 typical contrast ratio
72% color gamut (NTSC color space)
RoHS Compliant

For complete LCD specification (standard panel), refer to the NEC 10276BC16-01 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

5,000:1 or better dimming ratio (Day)¹

¹ For best power transfer and control, use one ACI-2173 Dual Mode LED Driver.

MAXIMUM RATINGS

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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)	-30 to +85	Deg-C
Tstg ¹	Display storage temperature	-20 to +60	Deg-C
Ifwd	LED forward current (Day)	75	mA
Ifwd	LED forward current (NVIS)	15	mA

*Maximum Ratings are those values beyond which damage may occur

¹Per Manufacturer's Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 62.5mA per bank, 1 bank per rail, 2 rails per display, Ifwd(NVIS) = 25.0 mA per bank, 1 bank per rail, 2 rails per display, LED rails: ACR-2175, Ta = +25Deg-C, LCD powered

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		990	1100	1210	cd/m ²
Bpn	Panel Brightness (NVIS)		3	4	5	cd/m ²
Xd	White X coordinate (Day mode)			0.270		-
Yd	White Y coordinate (Day mode)			0.290		-
XN	White X coordinate (NVIS)			0.290		-
YN	White Y coordinate (NVIS)			0.520		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

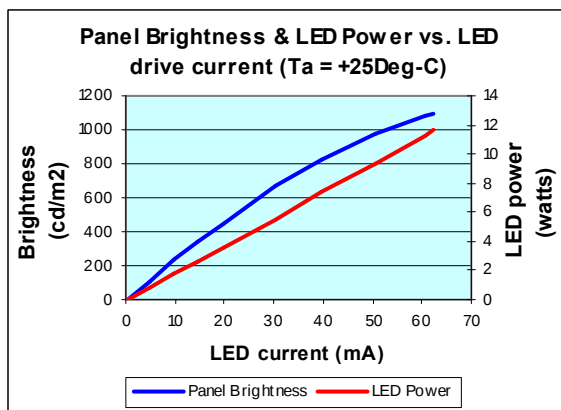
Ifwd(Day) = 62.5mA, Ifwd(NVIS) = 25.0mA, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		84	94	104	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		47	53	59	Vdc

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

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Day mode



NVIS

