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ACD-2381

PRODUCT DATA SHEET – PAGE 1 OF 3

10.4" XGA LED BACKLIT TFT DISPLAY WITH NVIS WHITE CAPABILITY

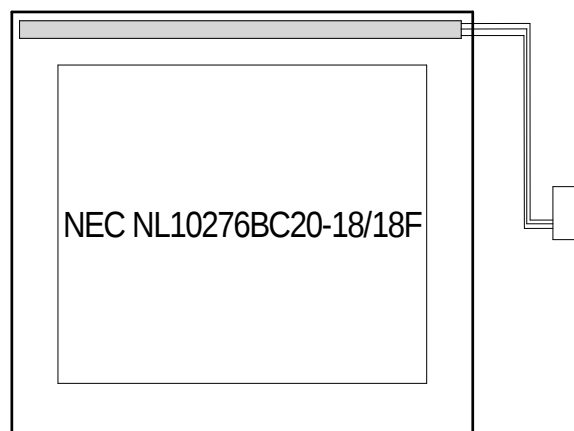
GENERAL DESCRIPTION

The ACD-2381 consists of the NEC NL10276BC20-18/18F XGA TFT display modified with a high performance LED backlight capable of Day and NVIS White operation.

Performance at given brightness levels

1000 cd/m² with 7.7 watts LED power (Day)
11.0 cd/m² with 2.3 watts LED power (NVIS)

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LCD PANEL HIGHLIGHTS

10.4" TFT Active Matrix Color
210.432 (H) mm x 157.824 (V) mm viewable area
XGA 1024 x 768 pixels, 16.7 M colors
900:1 typical contrast ratio
RoHs compliant

For complete LCD specification (standard panel), refer to the NEC NL10276BC20-18/18F 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-2384 Dual Mode LED Driver.

MAXIMUM RATINGS

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Symbol	Parameter	Value	Unit
Top ¹	Operating temperature of display (center of panel surface)	-30 to +80	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +85	Deg-C
Tstg ¹	Display storage temperature	-30 to +80	Deg-C
Ifwd	LED forward current (Day)	60	mA
Ifwd	LED forward current (NVIS)	36	mA

*Maximum Ratings are those values beyond which damage may occur

¹Per Manufacturer's Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 50mA per bank, 2 banks per rail, 1 rail per display, Ifwd(NVIS) = 30mA per bank, 1 bank per rail,
LED rail: ACR-2377, Ta = +25Deg-C, LCD powered

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		900	1000	1100	cd/m ²
Bpn	Panel Brightness (NVIS)		5	11		cd/m ²
Xd	White X coordinate (Day mode)			0.266		-
Yd	White Y coordinate (Day mode)			0.298		-
XN	White X coordinate (NVIS)			0.272		-
YN	White Y coordinate (NVIS)			0.475		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd(Day) = 50mA, Ifwd(NVIS) = 30mA, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		69	77	85	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		69	77	85	Vdc



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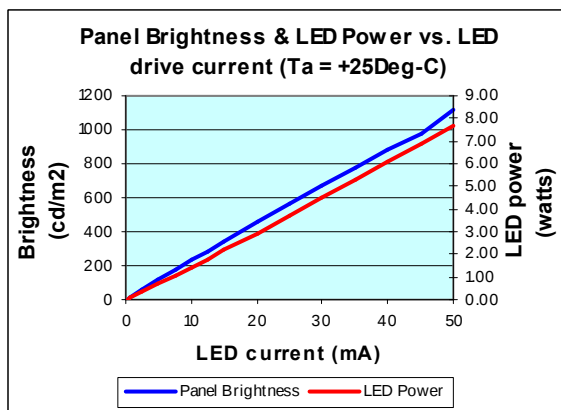
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PRODUCT DATA SHEET – PAGE 3 OF 3

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

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Day mode



NVIS

