

ACD-2403

PRODUCT DATA SHEET – PAGE 1 OF 3

19" SXGA LED BACKLIT TFT DISPLAY WITH NVIS CLASS B CAPABILITY

GENERAL DESCRIPTION

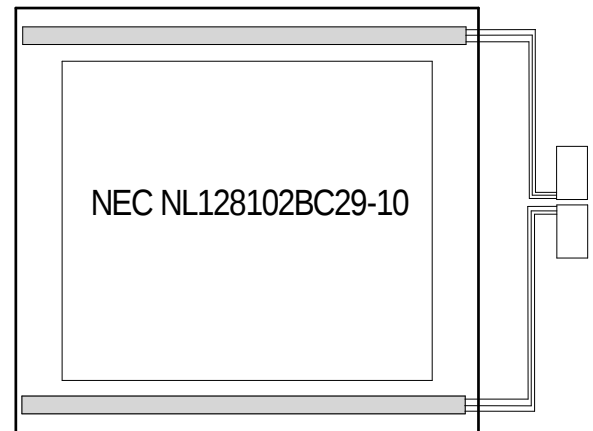
The ACD-2403 consists of the NEC NL128102BC29-10 SXGA TFT display modified with a high performance LED backlight capable of Day and NVIS Class B operation.

Customer Consigned Panel

Performance at given brightness levels

800 cd/m² with 50.4 watts LED power (Day)
10.0 cd/m² with 8.5 watts LED power (NVIS)

5/23/2014



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
Display Mode Normally Black
RoHs compliant

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

LED BACKLIGHT FEATURES

White and NVIS LED edge-light rail
Three wire connection (Typically 11 inches long), allows simple interconnect with LED driver¹
Projected lifetime > 75,000 hours
50,000:1 or better dimming ratio (Day)¹
Minimum NVIS intensity equal to 0.003 cd/m² or less¹

¹ For best power transfer and control, use two ACI-2404 Dual Mode Driver.

MAXIMUM RATINGS

05/23/2014

Symbol	Parameter	Value	Unit
Top	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	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

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-2498, Ta = +25Deg-C, LCD powered

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		720	800	880	cd/m ²
Bpn	Panel Brightness (NVIS)		9.0	10.0	11.0	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)			0.647		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

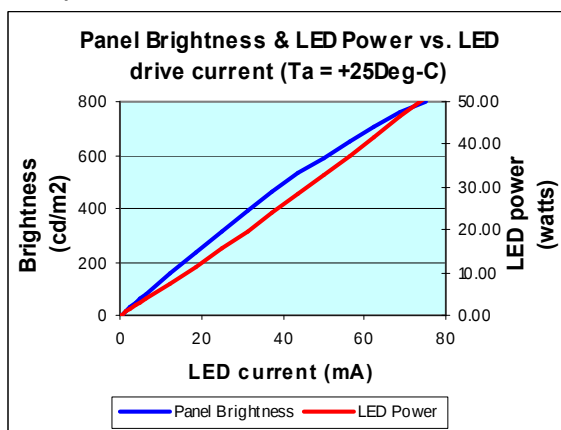
Ifwd(Day) = 75mA, Ifwd(NVIS) = 25mA, Top = +25Deg-C

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)		77	85	93	Vdc

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

5/23/2014

Day mode



NVIS

