

12.1" SVGA LED BACKLIT TFT LCD DISPLAY

Sunlight Readability/1000:1 Dimming/Cool Operation

GENERAL DESCRIPTION

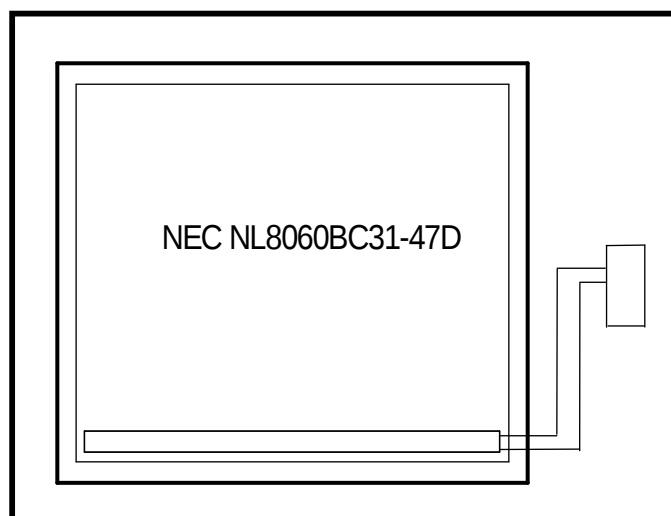
The ACD-NC121-2616 consists of the NEC NL8060BC31-47D 12.1" SVGA TFT LCD Display modified with a high-performance LED backlight.

Performance at given brightness level

1500 cd/m² with 7.7 Watts LED Power

Display outline identical to standard LED equipped panel.

For many applications, satisfies sunlight readability goals.



LCD PANEL HIGHLIGHTS

12.1" TFT LCD Module

SVGA 800(H) x 600(V) 16.7 colors (RGB 8-bits data driver)

Active Area: 246.0mm(H) x 184.5mm(V)

LVDS Electrical Interface

Contrast Ratio 900:1 Typical

Display Mode Normally White

Surface Treatment: Anti-Glare

RoHS Compliant

For complete LCD specifications (standard panel), refer to NEC datasheet NL8060BC31-47D

LED BACKLIGHT FEATURES

White LED edge-light Flex rail.

Single connector connection, allows easy interconnect with LED driver.

Projected lifetime > 75,000 hours

Active fault protection keeps remaining LEDs operating normally, if one should ever fail.

1000:1 or better dimming ratio, guaranteed.

1 For best power transfer and control, use ACI-C150070-1969 driver. Do not set the driver output current (Ifwd) higher than the value specified in the Maximum Ratings table of this document. Please contact the factory for more specific use LED driver solutions if required.

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Top ¹	Operating Temperature of Display (Center of Display Surface)	-30 to +80	°C
Tled	Operating Temperature of LED Edge Light (Light Rail Contact)	-30 to +85	°C
Tstg ¹	Display Storage Temperature	-30 to +80	°C
Ifwd	LED Forward Current	84	mADC

*Maximum Ratings are those values beyond which damage may occur.

¹ Per Manufacture's Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd = 70mA per bank, LED rail ACR-1101-2323, 1 bank per rail, 1 rail per display, Ta = +25Deg-C, moving air (36.0 CFM), min 2hr soak

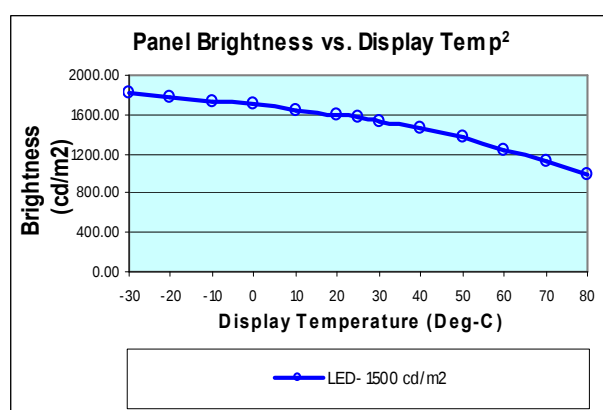
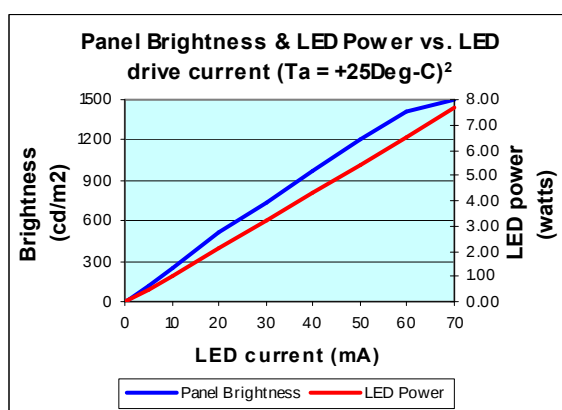
Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
Bp	Panel Brightness		1350	1500	1650	cd/m ²
X	White X Coordinate			0.277		-
Y	White Y Coordinate			0.326		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd = 70mA per bank, 1 bank per rail, 1 rail per display, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
Vfwd	LED Rail Forward Voltage Drop		99	110	121	VDC

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS



² Moving air (36.0 CFM)