

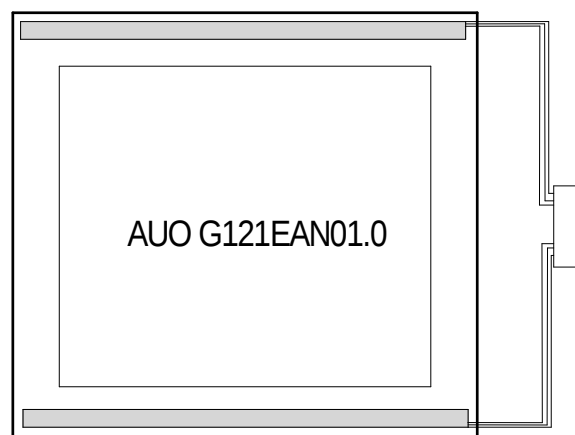
12.1" WXGA LED BACKLIT TFT DISPLAY WITH NVIS WHITE CAPABILITY

GENERAL DESCRIPTION

The ACD-2896 consists of the AUO G121EAN01.0 12.1" 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 21.1 watts LED power (Day)
1.71 cd/m² with 0.89 watts LED power (NVIS)



LCD PANEL HIGHLIGHTS

12.1" TFT Active Matrix Color

261.12 (H)mm x 163.2 (V)mm viewable area

WXGA 1280 x 800 pixels, 16.7M/262K colors

1000:1 typical contrast ratio

Display Mode Normally Black

Surface Treatment: Hardness 3H, AG

For complete LCD specification (standard panel), refer to the AUO G121EAN01.0 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 ACI Dual Mode LED Driver ACI-2897.

MAXIMUM RATINGS *

Symbol	Parameter	Value	Unit
Top ¹	Operating temperature of display (center of panel surface)	-30 to +85	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-30 to + 95	Deg-C
Tstg ¹	Display storage temperature	-30 to +85	Deg-C
Ifwd	LED forward current (Day)	88	mA
Ifwd	LED forward current (NVIS)	8.3	mA

*Maximum Ratings are those values beyond which damage may occur

1 Per Manufacturer's Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 80mA per bank, 2 banks per rail, 2 rails per display, Ifwd(NVIS) = 7.5mA per bank, 1 bank per rail, 2 rails per display, LED rails: ACR-2887 Ta = +25Deg-C, moving air (36.0 CFM) min 2hr soak

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		900	1000	1100	cd/m ²
Bpn	Panel Brightness (NVIS)			1.713		cd/m ²
u'd	White X coordinate (DAY)			0.205		-
v'd	White Y coordinate (DAY)			0.464		-
Rd	White radius error (DAY)				0.04	-
u'n	White X coordinate (NVIS)			0.190		-
v'n	White Y coordinate (NVIS)			0.490		-
Rn	White radius error (NVIS)				0.04	-

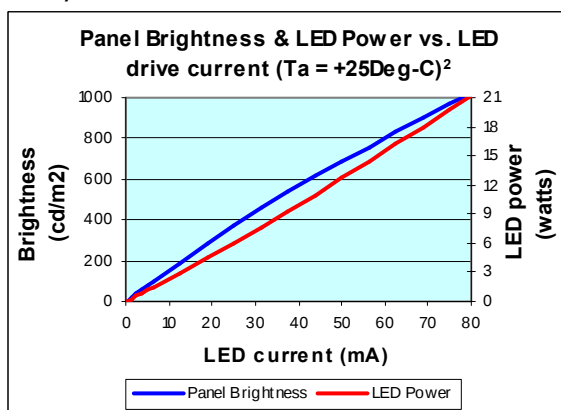
LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd(Day) = 80mA, Ifwd(NVIS) = 7.5mA, Top = +25Deg-C

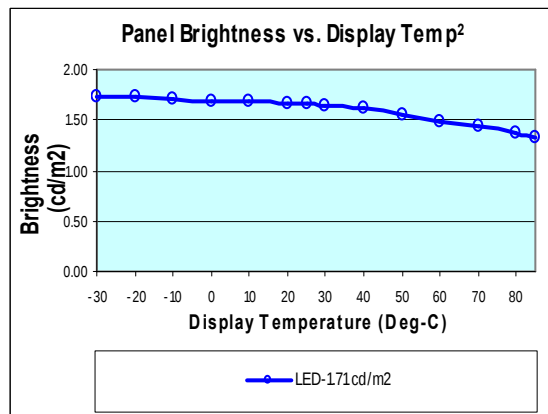
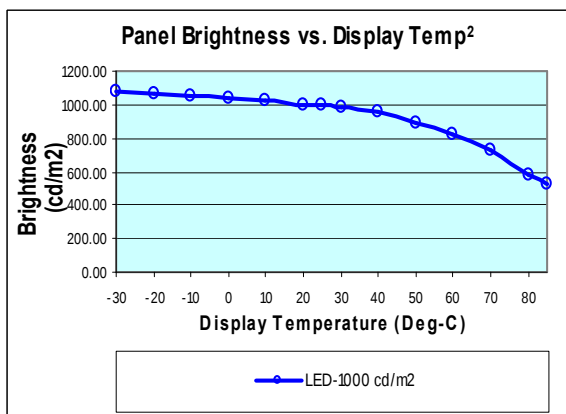
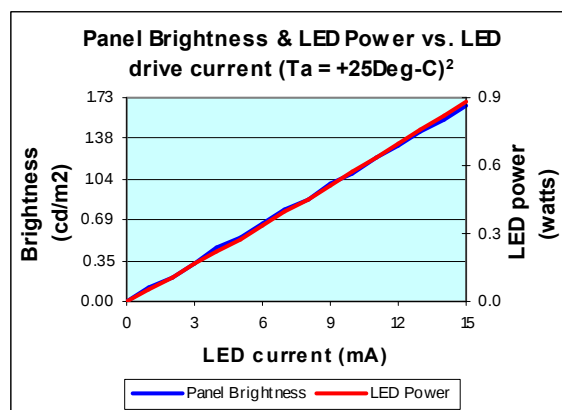
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		60	66	72	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		53	59	65	Vdc

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

Day



NVIS



² Moving air (36.0 CFM)