

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

GENERAL DESCRIPTION

08/25/2014

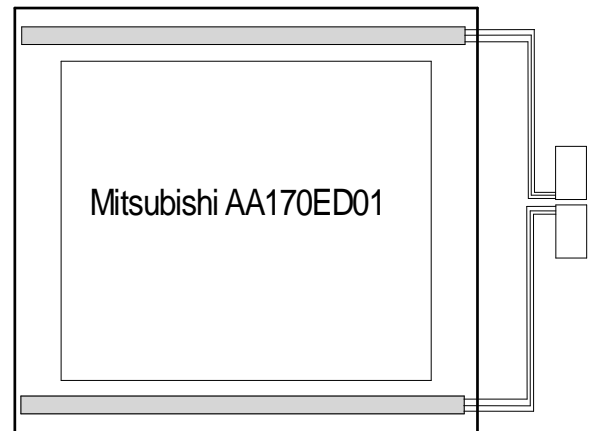
The ACD-2540 consists of the Mitsubishi AA170ED01 SXGA TFT display modified with a high performance LED backlight capable of Day and NVIS Class B operation.

Customer Consigned Panel

Performance at given brightness levels

1200 cd/m² with 36.7 watts LED power (Day)

13 cd/m² with 5.8 watts LED power (NVIS)



LCD PANEL HIGHLIGHTS

17" TFT Active Matrix Color

337.92 (H) mm x 270.336 (V) mm viewable area

SXGA 1280 x 1024 pixels

262K (6 bit/color) ; 16.7 M (8 bit/color)

800:1 typical contrast ratio

Display Mode Normally White

RoHs compliant

For complete LCD specification (standard panel), refer to the Mitsubishi AA170ED01 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-2383 Dual Mode Driver.

MAXIMUM RATINGS

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Symbol	Parameter	Value	Unit
Top	Operating temperature of display (center of panel surface)	-20 to 70	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +85	Deg-C
Tstg	Display storage temperature	-20 to +80	Deg-C
Ifwd	LED forward current (Day)	108	mA
Ifwd	LED forward current (NVIS)	36	mA

*Maximum Ratings are those values beyond which damage may occur

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 90mA per bank, 2 banks per rail, 2 rails per display, Ifwd(NVIS) = 30mA per bank, 1 bank per rail, 2 rails per display LED rail: ACR-2387, Ta = +25Deg-C, LCD un-powered

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Brightness (Day)		1080	1200	1320	cd/m ²
Bpn	Panel Brightness (NVIS)		11.7	13.0	14.3	cd/m ²
Xd	White X coordinate (Day mode)			0.253		-
Yd	White Y coordinate (Day mode)			0.266		-
XN	White X coordinate (NVIS)			0.245		-
YN	White Y coordinate (NVIS)			0.725		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd(Day) = 90mA, Ifwd(NVIS) = 30mA, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		92	102	112	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		88	97	106	Vdc

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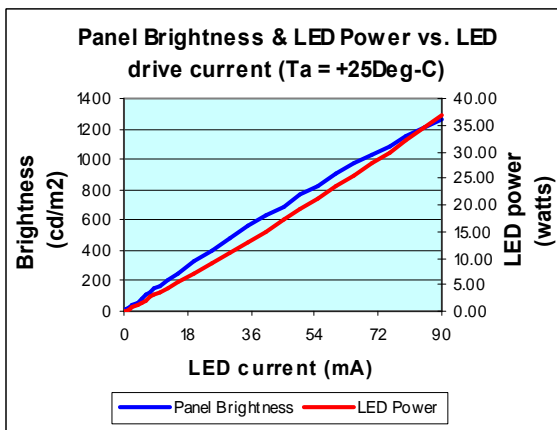
ACD-2540

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TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

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Day mode



NVIS

