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ACD-2090

PRODUCT DATA SHEET

10/11/2013

24.0" WUXGA LED BACKLIT TFT DISPLAY

Sunlight Readability/1000:1 dimming/Cool operation

GENERAL DESCRIPTION

The ACD-2090 consists of the Samsung LTM240CT04 WUXGA TFT display modified with a high performance LED backlight. The resulting performance exceeds that of the standard CCFL equipped backlight by 2.0 to 1

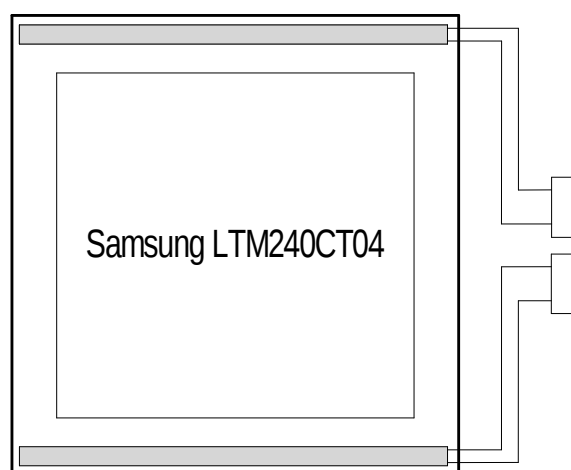
Customer Consigned Panel

Performance at given brightness levels

1000 cd/m² with 50.0 watts LED power

Display outline identical to standard CCFL equipped panel

For many applications, satisfies sunlight readability goals



LCD PANEL HIGHLIGHTS

24.0" TFT Active Matrix Color

518.4 (H) mm x 324.0 (V) mm viewable area

WUXGA 1920 x 1200 pixels, 16.7M colors

1000:1 typical contrast ratio

72% color gamut

RoHS compliant

For complete LCD specification (standard panel), refer to Samsung LTM240CT04 data sheet.

LED BACKLIGHT FEATURES

White LED edge-light rail

Two wire connection (Typically 11 inches long), allows simple interconnect with LED driver¹

Projected lifetime > 75,000 hours

1000:1 or better dimming ratio, guaranteed¹

¹ For best power transfer and control, use ACI-E120250-1879 LED drivers. 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	Operating temperature of display (center of panel surface)	0 to +50	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-30 to +85	Deg-C
Tstg	Display storage temperature	-25 to +60	Deg-C
Ifwd	Maximum LED edge-light forward current (DC)	75	mA

*Maximum Ratings are those values beyond which damage to the driver may occur

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd = 62.5mA per bank, LED rail ACR-1004-2071, 4 banks per rail, 2 rails per display, Ta = +25Deg-C, LCD unpowered

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bp	Panel Brightness		900	1000	1100	cd/m ²
X	White X coordinate			0.320		-
Y	White Y coordinate			0.375		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd = 62.5mA per bank, LED rail ACR-1004-2071, 4 banks per rail, 2 rails per display, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		90	100	110	Vdc

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

