



397 Route 281 – P.O. Box 1175
Tully, New York 13159-1175
Phone: 315 696-6676
Fax: 315 696 9923
Email: sales@acipower.com
www.acipower.com

ACD-SH104-2414

PRELIMINARY DATA SHEET

10/24/13

10.4" VGA LED BACKLIT TFT LCD DISPLAY

Sunlight Readability/1000:1 Dimming/Cool Operation

GENERAL DESCRIPTION

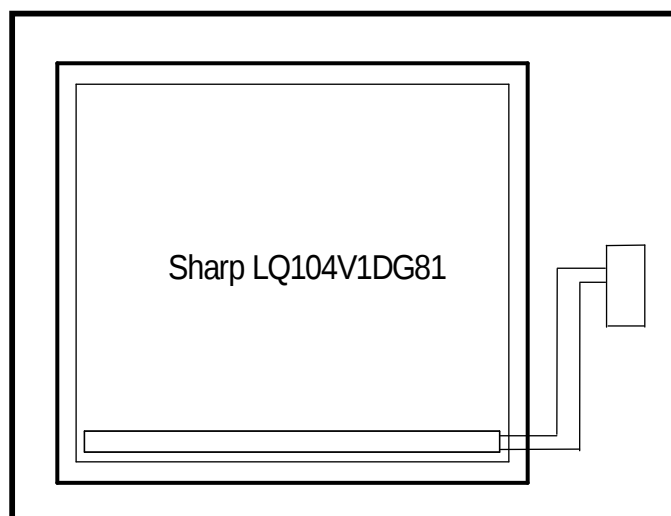
The ACD-SH104-2414 consists of the Sharp LQ104V1DG81 10.4" VGA TFT LCD Display modified with a high-performance LED backlight. The resulting performance exceeds that of the standard LED equipped backlight by 1.2 to 1.

Performance at given brightness level

1000 cd/m² with 11.7 Watts LED Power

Display outline identical to standard LED equipped panel.

For many applications, satisfies sunlight readability goals.



LCD PANEL HIGHLIGHTS

10.4" TFT LCD Module

VGA 640(H) x 480(V)

Active Area: 211.2mm(H) x 158.4mm(V)

262,144 colors

LVDS Electrical Interface

Contrast Ratio 900:1 Typical

Display Mode Normally White

Surface Treatment: Anti-Glare and Hard Coating 3H

RoHS Compliant

For complete LCD specifications (standard panel), refer to Sharp datasheet LQ104V1DG81

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-1865 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	Operating Temperature of Display (Center of Display Surface)	-30 to +70	°C
Tled	Operating Temperature of LED Edge Light (Light Rail Contact)	-30 to +85	°C
Tstg	Display Storage Temperature	-30 to +80	°C
Ifwd	LED Forward Current	144	mADC

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

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd = 120mA per bank, LED rail ACR-0971-2374, 1 bank per rail, 1 rail per display, Ta = +25Deg-C, LCD powered

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
Bp	Panel Brightness		900	1000	1100	cd/m ²
X	White X Coordinate			TBD		-
Y	White Y Coordinate			TBD		-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd = 120mA 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		87	97	107	VDC

TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

