

Display Week 2010: Sharp Introduces 8 New LED-backlit LCDs + New Memory LCDs

Today, Sharp Microelectronics of the Americas (SMA) announced a suite of 8 new LED-backlit LCD products. The new LED LCDs range in size from 3.5-inches to 15.0-inches. Touch screen panel options have also been added in 4.3-inch and 7.0-inch sizes.

LED (Light Emitting Diode) backlighting is a popular choice due to low power consumption and reduced electromagnetic interference (EMI), as compared to CCFT (Cold Cathode Florescent Tubes) LCD products. LEDs are also Mercury (Hg) free, further adding to their environmental friendliness. LEDs offer greater resistance to mechanical shock and vibration, and come to full brightness immediately upon power-up, independent of ambient temperature conditions. These factors make them ideal for high-reliability, rugged industrial applications. Sharp's goal is to provide an easy upgrade from current CCFL products to newer LED products.

"Our customers indicate that they have numerous new market opportunities in integrating LED LCDs into a wider variety of products," said Dave Hagan, LCD Product Manager, SMA. "We plan to help our customers take advantage of this new, rugged, and energy-efficient LED backlight technology by continuing to expand our LED-backlit LCD product offering. We are introducing multiple panels today, with several additional sizes coming soon after in 2010."

"Our customers trust Sharp as a brand," said George Papajohn, Director of Marketing for Arrow Electronics, Inc. "Sharp's form factors allow greater flexibility in product offerings with less time in the labs. We always get a strong response when Sharp adds new panel sizes to its line-up."

Sharp LED-backlit LCDs are ideal for a wide variety of industry applications, including: ATMs, Factory Automation, Gaming, Home Automation, Industrial Controls, Multimedia, Medical Devices, Navigation Systems, POS Terminals, Test and Measurement, Transportation, VoIP, White Goods, and others. Some individual product features are highlighted below.

3.5-inch QVGA LED LCDs (LQ035Q3DG01)

This 3.5-inch landscape mode display is ideal for indoor and outdoor applications and features 450 nits of brightness and a 500:1 contrast ratio for excellent color rendering. Its format is 320 x RGB x 240 dots panel with 262k colors. The interface uses 18-bit digital signals (6-bit x RGB), four timing signals, 3-wire, 9-bit serial interface signals. The display logic operates at 3.3V (TYP).

4.3-inch LED LCDs (LQ043T3DG01 and LQ043T3DG02)

The LQ043T3DG01 WQVGA touch screen features 400 nits of brightness and a 900:1 contrast ratio for excellent color rendering, while the non-touch LQ043T3DG02 delivers 480 nits of brightness. The format for both LCDs is 480 x RGB x 272 dots panel with 262k colors. The interface uses 18-bit digital signals (6-bit x RGB), 3-wire 9- / 24-bit serial interface signals. The display operates at 3.15V (TYP).

7.0-inch LED LCDs (LQ070Y3DG3A and LQ070Y3DG3B)

These ultra-thin displays add new touch panel (DG3B) and non-touch (DG3A) options in their size class. Both feature excellent color rendering and exceptional temperature range. The panels feature extended temperature range and excellent color rendition. Their format is 800 x RGB x 480 dots with 262K colors. The interface uses 24-bit digital signal (RGB x 8-bit) and the required power supply is a single +3.3V DC voltage for panel driving.

10.4-inch VGA Digital LED LCD (LQ104V1DG62)

This rugged Sharp "Strong 2" panel features a minimum 50k hour backlight life, wide operating temperature of -30°C to +80°C (at the panel surface), brightness of 550 nits, and a high contrast ratio of 600:1. Sharp's Strong 2 designation outlines stringent industrial specifications for brightness, contrast, temperature range, shock, and vibration. The panel is a mechanical and electrical (except for backlight) drop in replacement for Sharp's same-sized LQ104V1DG61 CCFT module.

12.1-inch SVGA LED LCD (LQ121S1LG81)

This SVGA LCD module is ideal for industrial applications. Its features include 50k hour backlight life, wide temperature range and viewing angles, and 450 nits of brightness with a high 800:1 contrast ratio. It is a mechanical and electrical (except for backlight) drop-in replacement for Sharp's same-sized LQ121S1LG41 module.

15.0-inch XGA LED LCD (LQ150X1LG82)

This LVDS panel offers high-speed operation of 8ms. It also carries a minimum 50k hour backlight life and operating temperature of 0°C to +60°C (at the panel surface). It is a mechanical and electrical drop in replacement for Sharp's same-sized LQ150X1LG81 module (except for backlight and thickness). For more product details: www.sharpLEDLCD.com.

Availability and Pricing

Product samples and pricing may be obtained through any Sharp Representative or Distributor throughout the Americas. Sharp displays are RoHS* compliant, upholding the company's commitment to environmentally responsible manufacturing. One-piece sample pricing for these new Sharp products are as follows:

- LQ035Q3DG01 \$90

- LQ043T3DG01 \$110
- LQ043T3DG02 \$100
- LQ070Y3DG3B \$150
- LQ104V1DG62 \$373
- LQ121S1LG81 \$400
- LQ150X1LG82 \$486

Sharp Customer Support

Sharp's dedicated sales and field applications engineering team supports customers with OEM and integration throughout the design cycle. This helps ensure that each product's unique features are leveraged to meet the specific demands of most any industry solution challenge. For more information, visit www.SHARPsma.com.

About Sharp Microelectronics of the Americas

Sharp Microelectronics of the Americas (SMA) drives innovative LCD, optoelectronics, memory, imager, and RF components to market. The world's leading manufacturers of consumer and business technologies look to SMA for the products, expertise, and worldwide support they need to make their visions a reality. SMA, in Camas, Washington, is the microelectronics sales and marketing division of Sharp Electronics Corporation, a wholly owned subsidiary of Sharp Corporation. For more information, visit us at www.SHARPsma.com [1].

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[1] <http://www.SHARPsma.com>