Memory LCDs Allow for More Content on a Small Display

Sharp Microelectronics of the Americas (SMA) announced additions to its Memory LCD product line. These include a 2.94-inch display, a 6.0-inch display, and a new 2.7-inch Transflective display (1.35-inch Memory LCDs are also available; see http://www.sharpmemorylcd.com [1] for details).

Sharp's Memory LCD technology delivers a high-contrast, high-resolution display that allows for denser content than many other types of same-sized LCDs. It also eliminates sweeping images or "ghosting," because only the part of the image that requires updating needs to be changed.

With the new Sharp Memory LCD, embedded 1-bit memory in every pixel enables each pixel to hold state while requiring very little current. This delivers an "always on" display that uses little power (only a single supply voltage is required), even when updating images. This helps designers create products with exceptionally long battery life. The response time of the Memory LCD makes it fast enough to display motion video. Bold and crisp black images are delivered by high-resolution capability in a small diagonal display.

A lightweight, two-glass design with an integrated driver in the panel provides an exceptionally thin module that's a perfect solution for compact handheld, wrist-top, and other small-screen devices that benefit from displaying rich content. Incorporating the
Memory LCD into a design is simple with 3-wire SPI serial interface (SI, SCS, SCK). The
6.0-inch display includes a CPU-bus interface.

Sharp offers two types of Memory LCD modules (availability varies by size):

Silver Metallic Polymer Network Liquid Crystal Modules (PNLC)
Sharp's Polymer Networked Liquid Crystal (PNLC)-type Memory LCD is composed of a
PNLC layer formed between a transparent surface electrode and mirror-reflective pixel electrodes. The PNLC module uses a scattering mode and does not require polarizers, which results in a very bright reflective display. A one-bit memory circuit is embedded into each pixel, which retains the pixel information once it's written.

Clear Monochrome HR-TFT Module
Sharp's HR-TFT technology adds a polarizer to the top layer to greatly enhance the contrast of the display. The black level is dramatically enhanced, resulting in a crisp black and white image that closely mimics the readability of print on paper.

2.7-inch WQVGA HR-TFT Transflective Memory LCD (LS027B7DH01)
The new 2.7-inch Transflective model is Sharp's first Transflective Memory LCD. Add a backlight with this display for excellent viewing in dark ambient conditions.
• View LS027B7DH01 Preliminary Technical Literature PDF

The 2.94-inch PNLC Memory LCD (LS029B4DN01)
Delivering similar functionality to Sharp's other PNLC Memory LCDs, the new 2.94-inch display provides an additional size option. Find the perfect fit for your design with all the power-saving benefits of Memory LCD technology.
• View LS029B4DN01 Preliminary Technical Literature PDF

The 6.0-inch HR-TFT Memory LCD (LS060S2UD01)
The Sharp 6.0-inch Memory LCD opens up a whole new size class of low power consumption, readability, and ease of design. This display's high-contrast text viewability in all lighting conditions, and its long battery life, makes it perfect for applications such as E-books, smart utility meters, and other applications that require a larger Memory display. It offers up to 16 pseudo-levels of gray scale for better rendition of images and an integrated backlight for low ambient light conditions.
• View LS060S2UD01 Preliminary Technical Literature PDF

Availability and Sample 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 is as follows:

2.7-inch Transflective LS027B7DH01: $50
2.94-inch LS029B4DN01: $65
6.0-inch LS060S2UD01: $95

For more information, visit www.SHARPsma.com [2].

Source URL (retrieved on *12/12/2013 - 8:18pm*):
http://www.ecnmag.com/product-releases/2010/11/memory-lcds-allow-more-content-small-display

Links:
[1] http://www.sharpmemorylcd.com
[2] http://www.SHARPsma.com