

Introducing the Sharp Memory LCD Suite

Memory in every pixel – plus active matrix technology – allows for richer content on a small display and offers ultra-low power consumption

Consumers continue to demand a greater amount of sophistication and functionality in electronic products – including products with small displays. Sharp's Memory LCD technology delivers a high-contrast, high-resolution display that enables denser content and eliminates many of the design issues inherent in yesterday's low-power LCD technology standards.

In Sharp's latest LCD design breakthrough, a one-bit memory circuit is embedded into every pixel, so information is retained once it's written. This allows you to design products with ultra-low power consumption and long battery life. The Memory LCD is fast and flexible enough to display motion video and scrolling text, as well as static images, with no image retention.

A lightweight, two-glass design with an integrated driver on the panel delivers a thin display that's a perfect solution for compact product profiles. Incorporating the Memory LCD into your design is simple with a 3-wire SPI serial interface (SI, SCS, SCK).

Sharp Memory LCD Products

The Memory LCD, a monochrome panel, is available in two styles to meet a variety of design needs: a silver metallic Polymer Network Liquid Crystal (PNLC) model and a high-contrast HR-TFT model.

Sharp's Memory LCD product line includes:

- 1.35-inch Memory LCDs – PNLC; choose from FPC or elastomeric strip connections
- 2.7-inch Memory LCD – Transflective WQVGA HR-TFT
- 2.94-inch Memory LCD – PNLC
- 6.0-inch Memory LCD – HR-TFT

Sharp's Memory LCDs provide a perfect solution for these applications and more:

- E-book readers
- Mobile phones
- Tablet computers
- Remote controls
- Performance tracking devices
- Smart utility meters
- Medical monitoring devices
- Wristwatches
- Fish finders
- White goods
- Retail tags
- or any product with a battery

For more information, visit the Sharp Memory LCD website at www.sharpmemorylcd.com.

The Resource page offers informative video, specs, and application notes, and a Memory LCD episode of "The Switch" podcast. It's all in one place to help make your design and purchasing process easier.

LCD Products

Sharp Memory LCD Product Details

Sharp has Field Technical Managers (FTMs) in your area available to provide hands-on help with your designs. We support each display with detailed specifications and a reliability test report.

1.35-inch Memory Displays

- 1.35-inch PNLC Square elastomeric Memory LCD (LS013B4DN01) or 1.35-inch PNLC Square FPC Memory LCD (LS013B4DN02)

Size	1.35 inch
Pixel Format	96 × 96
Outline Dimension	28.2 × 32.34 × 1.4
Active Area	24.192 × 24.192
Dot Pitch	0.252 × 0.252
Input Voltage	5 V
Interface Type	3 V serial
Reflectance	50%
Power Consumption*	15 μW
Operating Temp Range	-20 to +70°C

2.7-inch Memory Display

- 2.7-inch HR-TFT Transflective Landscape WQVGA FPC Memory LCD (LS027B7DH01)

Size	2.7 inch
Pixel Format	400 × 240
Outline Dimension	62.8 × 42.82 × 1.4
Active Area	58.8 × 35.28
Dot Pitch	0.147 × 0.147
Input Voltage	5 V
Interface Type	3 V serial
Reflectance	18%
Power Consumption*	50 μW
Operating Temp Range	-20 to +70°C

2.94-inch Memory Display

- 2.94-inch PNLC WQVGA+ FPC Monochrome Memory LCD (LS029B4DN01)

Size	2.94 inch
Pixel Format	240 × 456
Outline Dimension	39.6 × 73.9 × 0.9
Active Area	34.8 × 66.12
Dot Pitch	0.145 × 0.145
Input Voltage	5 V
Interface Type	3 V serial
Reflectance	47%
Power Consumption*	50 μW
Operating Temp Range	-10 to +60°C

6.0-inch Memory Display

- 6.0-inch HR-TFT Gray Scale SVGA FPC Memory LCD (LS060S2UD01)

Size	6 inch
Pixel Format	600 × 800
Outline Dimension	96.8 × 132.8 × 1.23
Active Area	91.8 × 122.4
Dot Pitch	0.153 × 0.153
Input Voltage	3.3 V
Interface Type	3 V parallel
Reflectance	16%
Power Consumption*	2100 μW
Operating Temp Range	-20 to +70°C

*with a static image

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