

Bringing You the LED-Backlit LCD Advantage



Sharp's LED-Backlit LCD Suite

Sharp's LED-backlit LCD Suite just keeps getting sweeter. Customer demand continues to encourage the adoption of power-saving LED technology into LCD products...and Sharp is committed to helping lead the charge.

Today, we have LED-backlit LCD offerings ranging from 2.5-inch all the way up to 23.1-inch diagonal sizes – but we won't stop there. We continually expand our product line with new sizes and features to provide the perfect fit for your next design. We also have helpful sales and support staff available to help you more easily adapt LED backlighting into your existing designs.

Sharp extends decades of experience in the LCD business to bring you panels with superior specifications that meet the rugged demands of the Industrial Applications market. Our LCDs deliver crisp, accurate images via high brightness, high contrast ratio, wide viewing angles (including our Advanced Super View or ASV technology), quick response time, wide operating temperature range, and other features.

You have the big ideas. Sharp has the LCDs to match. Together, we can embrace exciting new changes in the industry and help you get to market quickly with power-saving products that deliver premium visual impact.



The LED Advantage

Put the performance and ruggedness of Sharp's industrial displays to work in your product designs — with the added benefit of LED backlighting.

LED-backlit LCDs enable slimmer design profiles, and compared to their CCFL (Cold Cathode Fluorescent Lamp) counterparts, they deliver longer backlight life and are more resistant to shock and vibration. Plus, their production, operation, and disposal are all far kinder to our environment. Now, there are some new design possibilities you can feel good about.

The benefits of Sharp's LED-backlit LCDs include*:

- Longer operating life
- Low power consumption
- Mercury [Hg] free
- Greater resistance to mechanical shock (no glass tubes)
- Quicker illumination to stable brightness
- Wide dimming ratio (to <1%)
- Reduction of electronic noise (low DC drive voltage)

At Sharp, we're dedicated to creating innovative technologies that benefit the culture and welfare of people around the world. We promote environmental stewardship through the thoughtful development, creation, manufacturing, and servicing of all our products.



^{*}See full specifications for details.

Sharp LED-Backlit LCD Products

LCD Size (Diagonal)	Part Number	Resolution/Features	
Small-Format LED-Backlit LCDs			
2.5-inch	LQ025Q3DW02	QVGA / ASV	
3.0-inch	LQ030B7UB02	WQVGA	
3.5-inch	LQ035Q3DG01	QVGA	
4.3-inch	LQ043T3DG01	WQVGA / Touch Screen	
4.3-inch	LQ043T3DG02	WQVGA	
5.0-inch	LQ050W1LA0A	WSVGA / LVDS / Touch Screen	
5.0-inch	LQ050W1LC1B	WSVGA / LVDS	
5.7-inch	LQ057Q3DC03	QVGA	
5.7-inch	LQ057Q3DG01	QVGA / Touch Screen	
5.7-inch	LQ057Q3DG02	QVGA	
Mid-Sized LED-Backlit LCDs			
7.0-inch	LQ070Y3DG3A	WVGA	
7.0-inch	LQ070Y3DG3B	WVGA Touch Screen	
7.0-inch	LQ070Y3LW01	WVGA / LVDS / ASV	
8.4-inch	LQ084S3LG03	SVGA / LVDS	
8.5-inch	LQ085Y3DW01	WVGA / ASV	



Sharp LED-Backlit LCD Products

LCD Size (Diagonal)	Part Number	Resolution/Features	
Large-Format LED-Backlit LCDs			
10.4-inch	LQ104V1LG81	VGA / LVDS / Strong 2	
10.4-inch	LQ104V1DG81	VGA / Strong 2 / Digital	
10.4-inch	LQ104S1DG34	SVGA Digital	
10.4-inch	LQ104V1DG62	VGA Digital	
12.1-inch	LQ121S1LG84	SVGA / LVDS	
12.1-inch	LQ121S1DC71	SVGA Digital / High Bright	
12.1-inch	LQ121K1LG52	WSVGA / LVDS / Wide Aspect Ratio	
12.1-inch	LQ121X3LG02	XGA / High Bright	
15.0-inch	LQ150X1LG82	XGA / LVDS	
15.0-inch	LQ150X1LG91	XGA / LVDS	
18.5-inch	LQ185T1LGN3	WXGA / LVDS	
19.0-inch	LQ190E1LX51	SXGA / LVDS / High Bright	
21.5-inch	LQ215M1LGN2	Full HD / LVDS	
23.1-inch	LQ231U1LW31	UXGA / LVDS	

Don't see the size you need? Sharp is continually updating its LED-backlit LCD product line. Contact your Sharp Representative or Distributor for details about new panel sizes and features to be released soon. Also, visit www.SharpSMA.com to view additional currently available LCDs.



Industrial Applications

Displays continue to pop up everywhere. Where they'll pop up next may be limited only by designers' imaginations.

Some specific industrial applications for Sharp LCDs include: ATMs, Factory Automation, Gaming/Lottery, Home Automation, Industrial Controls, Multimedia, Medical Devices, Navigation Systems, Office Automation, POS Terminals, Smart Meters, Test and Measurement, Transportation, VoIP, White Goods, and more.

Strong 2

Extreme environments demand tough display technology. Sharp's Strong 2 product designation defines stringent standards for the specifications that matter most for creating durable industrial designs.

Strong 2 criteria include:

- Shock and Vibration: Certifications of 60 G to 70 G shock and 1.5 G to 2.0 G vibration are ideal for surviving even the roughest handling.
- Temperature Range: Operation in extreme temperatures ranging from -30°C to +80°C eliminates the need for cooling/heating methods.
- Brightness: A high minimum brightness of 400 nits eliminates the need to add extra display backlights to compensate for high ambient light situations.
- Contrast: A high minimum contrast ratio of 600:1 provides crisp, precise images in any setting.



Proven Technology, Dedicated Support. Make the Sharp Choice

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, a UL parts list, a reliability test report, Incoming Inspection Specifications (IIS), and CAD drawings. Sharp's "plug and play" form-factor compliance allows you to integrate the latest technology advances without unnecessary redesign.

That, plus long-term parts availability, enables you to design product lines that endure and can expand with new sizes and features to meet customer demand. And because it's Sharp, you know you are choosing a panel with specifications built upon decades of proven LCD experience and innovation.

Online LED-backlit LCD Resources from Sharp

Need more information about creating designs featuring LED-backlit display technology? Visit Sharp's website at www.SharpLEDLCD.com to explore instructional videos, "The Switch" podcast, technical papers, product specification tables, and other helpful resources.



SHARP

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