

## Overview

LCD 2.0 can be used seamlessly in any lighting condition: from dark spaces to bright, direct sunlight. Sharp's reflective, MIP LCD technology enables Azumo's patented lightguide technology to deliver high quality images with ultra-low power consumption, extending the battery life of your device. The active matrix MIP LCD integrated with a highly efficient front light offers a superior user experience for a variety of applications where outdated, static HMI no longer suffices.

- ✓ **Less power** compared to a backlit LCD
- ✓ SPI interface for **simple connectivity**
- ✓ **Sufficient brightness** as low as 6 mW
- ✓ **Intrinsically safe** with wide temperature range
- ✓ 0.05mm thick, Azumo film is over **5x thinner** than alternative light guides
- ✓ Superior **readability** in all lighting conditions
- ✓ Active matrix MIP LCD enables **dynamic menu-driven, multi page HMI**



[View Mechanical Drawing](#)

Sharp Display P/N	LS044Q7DH01
Resolution	320 (H) x 240 (V)
Active Area	89.6 mm (H) x 67.2 mm (V)
PPI	90
Display Colors	B&W
Outline	94.8 mm (W) x 75.2 mm (H) x 1.64 mm (D)
Display Thickness	2.13 mm
Display Power Consumption (Static Image)	250µW
Display Power Supply Voltage	5.0V (Analog) & 5.0V (Digital)
Response Time, Rise + Fall	10 + 20 ms
Interface	SPI
Front Light Power Supply Voltage	3.0 V
Front Light Power Consumption	6 - 180 mW
Front Light Brightness, Typ	20 nits at 180 mW
Front Light Brightness Uniformity, Typ	40%
Contrast Ratio - Native LCD	20
Viewing Angle - Native LCD	60/60° (H) & 60/60° (V)
Storage temperature (C°)	-20°C ~ 70°C
Operating temperature (C°)	-30°C ~ 80°C

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**\*Preliminary data. May be updated as testing continues. Latest update: 07/27/2023**

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