

## Overview

LCD 2.0 with NVG front light is designed for military and defense applications where NVG security is critical. MIP display technology delivers high quality images with ultra-low power consumption; extending the battery life of your device. The integrated front light uses a single LED delivering a superior user experience for low SWaP devices. This display has been tested and proves to be capable of meeting the following standards: **US Army CECOM NVG Secure Lighting SOW** and **MIL-STD-3009 Section 3.2.2**. The OB (optical bonding) capable Front Light is compatible for touch screen and cover glass.

- ✓ OB - Optical bonding capable (**cover lens & touch film compatible**)
- ✓ **Less power** compared to a backlit LCD
- ✓ SPI interface for **simple connectivity**
- ✓ Active matrix MIP LCD **enables dynamic, menu-driven, multi page HMI**
- ✓ **NVG Secure** | Low visual and heat signature
- ✓ Front light **dimnable to 0.172 nits**
- ✓ Superior **readability** in all lighting conditions
- ✓ 0.05mm thick, Azumo film is over **5x thinner** than alternative light guides
- ✓ **Intrinsically safe** with wide temperature range



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Sharp Display P/N	LS027B7DH01
Resolution	400 (H) x 240 (V)
Active Area	58.8 mm (H) x 35.28 mm (V)
PPI	173
Display Colors	Monochrome
Outline	62.8 mm x 42.82 mm x 1.64 mm
Display Thickness	1.91 mm
Display Power Consumption (Static Image)	50 μW
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	TBD
Front Light Brightness, Typ	TBD
Front Light Brightness Uniformity, Typ	TBD
Contrast Ratio - Native LCD	14
Viewing Angle - Native LCD	55/55° (H) & 60/60° (V)
Storage temperature (C°)	-30°C ~ 80°C
Operating temperature (C°)	-20°C ~ 70°C

\*Preliminary data. May be updated as testing continues. Latest update: 02/29/2024

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