Does the High Brightness LCD Display Support Custom Sizes?

RisingStar Engineering Team - Apr 23, 2025

Learn how high brightness LCD displays balance screen size, brightness (nits), and durability for outdoor/industrial use—and how to source custom-sized displays for global bulk projects.

Why Screen Size Matters for High Brightness LCD Displays

For bulk buyers procuring displays for outdoor kiosks, industrial equipment, or digital signage, screen size and brightness are equally critical. A high brightness LCD display (1,000–5,000+ nits) must deliver visibility in sunlight, but its size directly impacts:

Application fit (e.g., compact dashboards vs. large billboards).

Power consumption (larger screens require optimized backlighting).

Durability (thicker glass for rugged environments).

So, does high brightness limit your size options? Let’ s explore.



Standard vs. Custom Sizes: What’ s Possible?

Most high brightness LCD displays are available in standard sizes (7” to 85” +), but custom dimensions are achievable with advanced OEM/ODM support. Here’ s the breakdown:

1. Standard Sizes for High Brightness LCDs

Small (7” –15”): Ideal for EV dashboards, handheld devices, or IoT equipment.

Example: A 10.1” 2,000-nit display for aviation control panels.

Medium (15” –32”): Common for outdoor POS systems, transportation signage, or medical monitors.

Large (32” –85” +): Used in solar-powered billboards, stadium screens, or industrial control rooms.

2. Custom Sizes

Need a non-standard aspect ratio or unique dimensions? Customization is possible but depends on:

Panel availability: Manufacturers use “motherglass” sheets (e.g., Gen 8.5: 2,200mm x 2,500mm) to cut screens.

Brightness vs. size trade-offs: Larger screens may require distributed LED backlights to maintain uniform brightness.

Cost: Custom sizes often have higher MOQs (e.g., 500+ units).

Pro Tip: For custom projects, prioritize suppliers with in-house R&D teams to optimize cost and lead times.

3 Key Factors When Pairing Size and Brightness

Whether you need a 15” industrial monitor or a 55” outdoor billboard, ensure your high brightness LCD display meets these specs:

Global bulk buyers leverage high brightness LCDs in these scenarios:

Retail: 32”–55” sunlight-readable menu boards for drive-thrus.

Transportation: 7”–15” 2,500-nit displays for maritime navigation or EV charging stations.

Smart Cities: 75” 3,000-nit screens for traffic control centers.

Sample Specs:

Brightness: Up to 3,000 nits

Size Range: 7” to 85” (customizable)

Contrast Ratio: 1,200:1

Operating Temperature: -30°C to 80°C

Bulk Buyer Checklist: Sourcing the Right Size

Ready to Order High Brightness LCDs in Any Size?

Contact us for bulk quotes, free size/brightness consultations, and sampling within 7 days. Let’s scale your project with displays built to shine.