

ENH104VD1-600 10.4" Enhanced VGA AMLCD Display

Enhanced Brightness for Outdoor Viewability

The ENH104VD1-600 color TFT LCD provides improved optical performance based on the enhancement of a standard Sharp LQ104V1DG21 color active matrix LCD module. The incorporation of high efficiency optical films provides an increase of approximately 70% over the typical luminance of the stock display. The use of index matching (IM) films allows for improved contrast in high ambient lighting conditions. The ENH104VD1-600 is available in two surface treatments – IM/Clear (glossy) or IM/110 (a 10% diffusion).

The enhanced module is composed of a color TFT LCD panel, driver ICs, control circuit and power supply circuit and a backlight unit. Graphics and text can be displayed on a 640 x 480 pixel panel with 262,144 colors by supplying 18-bit data signals (6-bits/color), four timing signals, +3.3V / +5V DC supply voltage for the TFT panel and supply voltage for the backlight. The TFT LCD panel used for this module is a low-reflection and high color saturation type. Viewing angle is 6 o'clock direction. The module offers a wide viewing angle and high brightness (600 cd/m2 typical). The backlight-driving DC/AC inverter is not built into this module.

ENH104VD1-600 meets the environmental specifications of the stock Sharp LQ104V1DG21. WEDC provides a full one year warranty to the enhanced performance product.



Performance Features

- VGA 640(H) x 480(V) Resolution
- 600 nit typical Luminance
- TTL Interface
- High Contrast Ratio/High Aperture Ratio
- Higher Brightness per Watt

Applications

- Industrial automation
- Kiosk Systems
- GPS and Marine Navigation
- Instrumentation

Surface Treatments

- Diffuse front surface, IM/110
- Glossy front surface, IM/Clear

Display Characteristics

- Display Format: 640 Pixels (H) x 480 Pixels (V)
- Active Viewing Area: 211.2mm (H) x 158.4mm (V)
- Pixel Configuration: RGB Vertical Stripe
- Pixel Pitch: 0.330mm (H) x 0.330mm (V)
- Display Mode: Normally White

Viewing Angle

- Typical: 70/70/40/70 CR>10

Luminance

- Typical: 600 cd/m2

Response Time

- Typical: Rise 20ms / Fall 40ms

Operating Temperature

- Topa -10°C to +65°C (Ambient)

Storage Temperature

- Tstg -30°C to +70°C

When looking for a high-efficiency enhanced display system to integrate into your high-end product application, start with White Electronic Designs. Our people, processes and products are committed to the design, development and delivery of advanced display technology that expands possibilities in ways that consistently translate to success. And that's just the beginning Call **503.690.2460** or visit **www.whiteedc.com**.



WHITE ELECTRONIC DESIGNS

Display Systems Division

21333 NW Jacobson Road ■ Hillsboro, OR 97124
Tel: 503.690.2460 ■ Fax: 503.690.2490

