

90-4150-010

Enhanced, NVIS-Compatible, Sunlight Readable, 15.0" Display Head Assembly



General Digital has designed the NEC NL10276AC30-42C 15.0" XGA display for integration of a MIL-STD-3009 Class B Type II NVIS (NVG) Switchable Backlight. This NEC display has been customized specifically for use in Military and Government applications. Please feel welcome to consult with a Sales Engineer for additional information at 800.952.2535.

FEATURES

- > 15.0 inch, 1024 X 768 resolution
- > 7:1 Sunlight Readable Contrast
- > Backlight Draws Less Than 14 Watts
- > Sunlight Readable LED Backlight produces 900+ nits
- > Switchable Between Day/Night and NVIS Modes
- > Fully Dimmable (~1000:1)
- > LVDS (Low Voltage Data Signal)
- > Selectable 8-bit or 6-bit digital signals of RGB
- > Viewing Angle: R/L 80°/80°, U/D 80°/80°
- > Operating Temperature: -20° C~70° C
- > Storage Temperature: -30° C~80° C

OPTIONS

- > Custom Bezels, Enclosures
- > HDMI Video Controller Board
- > Optical Bonding (Display Enhancement)
- > Antireflective or Antiglare Protective Glass Overlay
- > Various Overlays (EMI, Heaters, Vandal Shields, More)
- > Touch Screens (Capacitive, Resistive, Circular Polarized, More)

GENERAL SPECIFICATIONS¹

Display Size (diagonal)	15.0 inches
Pixels	1024 (H) x 768 (V)
Display Area (mm)	304.13 (H) x 228.1 (V)
Module Size (mm)	326.5 (W) x 253.5 (H) x 11.8 (D)
Backlight	Sunlight Readable, NVIS Compatible, Dual Mode, High Efficiency LED Backlight (General Digital manufactured)
Luminance (dark room) @ Contrast (dark room) @ Power ²	Config 1 ³ : 923 cd/m ² @ 1168:1 @ 13.0 W Config 2 ⁴ : 716 cd/m ² @ 1193:1 @ 8.88 W Config 3 ⁵ : 600 cd/m ² @ 1053:1 @ 7.7 W
Weber Contrast/Class	Config 1 ³ : 7.08/Class 5 Config 2 ⁴ : 4.97/Class 5 Config 3 ⁵ : 3.18/Class 4
NVIS-B Radiance	Compliant (see NVIS data below)
NVIS White	Compliant (see NVIS data below)
Drive System	A-Si TFT Active Matrix
Display Color	16.7 Million Colors
Pixel Arrangement	RGB Vertical Stripe
Dot Pitch (mm)	0.099 (H) x 0.297 (V)
Viewing Angle	Horizontal: ±80°; Vertical: ±80° (at the contrast ratio > 10:1)
Polarizer Surface	Clear + Antireflection
Polarizer Pencil-Hardness	2H (minimum)
Color Gamut (against NTSC color space)	60% typical (at LCD panel center)
Response Time	Ton + Toff (10–90%); 8 ms (typical)
Signal System [8-bit Digital Signals for Data of RGB Colors, Dot Clock (CLK), Data Enable (DE)]	LVDS 1 Port
Power Supply Voltage	LCD Panel Signal Processing Board: 3.3 V
Storage Temperature	-30°–80° C
Operating Temperature	-20°–70° C
Weight	5 lbs.

1 Specifications other than Backlight, Luminance, Weber Contrast and NVIS data are based on the manufacturer data sheet.

2 All data obtained while driven by a Kikusui PAD35-10L power supply. Measurements were taken with a Minolta CS-100 photometer.

3 Rail temperature of 50° C.

4 For customer comparison: At OEM power consumption, the modified display achieves greater brightness than the unmodified OEM display.

5 For customer comparison: At OEM brightness, the modified display consumes less power than the unmodified OEM display.

NVIS nIRb COLOR

OEM Antireflective Overlay

U'	0.171
V'	0.510
Error Radius (max. passing = 0.04)	0.027

NVIS RADIANCE B

OEM Antireflective Overlay

NVIS Radiance B (max. passing = 2.2 nW/cm ² /sr)	1.044551 nW/cm ² /sr (Compliant)
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