

Ruggedized Command & Control Solutions

12.1-inch High Resolution Ground Mobile Display

RUGGED TECHNOLOGY FOR THE DIGITAL BATTLEFIELD



Key Features

- Remotable to 5 meters
- Sunlight readable
- Remote keyboard attachment port
- Ultra thin design
- 1400 x 1050 resolution in a 4 x 3 format
- Touchscreen

L-3 Ground Mobile Display products provide superior performance in demanding environments. The 12.1" High Resolution Display Unit (HRDU) was developed for mobile command & control, situational awareness and weapons targeting applications in wheeled and tracked vehicles. The display's small size, high resolution, sunlight readability, NVIS compatibility and integrated touchscreen features, combined with its fully ruggedized packaging, make the product the right choice for C3I system integrators. Support for VGA, dual composite video, and optional DVI inputs eases integration with current and legacy systems. Picture-in-Picture capability provides the ultimate in situational awareness. The integrated USB1.1 hub and PS2 keyboard and mouse interfaces simplify system cabling. Tethered remote operation up to 5 meters is supported by this design. Intelligent thermal management functions maximize performance under normal conditions, and protect the display from permanent damage under extreme temperature conditions. The 12.1" HRDU is a sealed design to prevent moisture penetration during washdown and to minimize electromagnetic compatibility issues. A separate 1U rack module provides 110 VAC to DC power conditioning for multiple display units.



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SPECIFICATIONS

Functional

- Display
- 12.1" diagonal color LCD with touch screen, able to be located up to 5 meters (16.4 ft) from processor unit.
 - 1400 x 1050 pixel resolution in a 4:3 format, scalable to 1280 x 1024
 - Dual NTSC/PAL composite.
 - Optional DVI
 - Sunlight readable in a 50,000 lux environment
 - High brightness in excess of 7500 nits
 - Nominal contrast ratio of > 50:1

Predicted Reliability >8000 hours MTBF (ground mobile)

Predicted Maintainability MTTR of 0.5 hours

Environmental (MIL-STD-810E)

- Temperature Operating range: -40°C to 60°C
Non-operating range: -40°C to 71°C
- Temperature Shock 21°C to -35°C and 21°C to 52°C each within 10-minute intervals
- Salt Fog 48-hour exposure per MIL-STD-810E, Method 509.3, Proc I
- Solar Radiation Exposure per MIL-STD-810E, Method 505.3, Proc I, hot-dry
- Functional Shock Operates during three half-sine shock impulses in each direction of each orthogonal axis (total of 18 shocks) at a peak amplitude of 40 G (-0%, +20%) and duration of 6 ms (-0%, +50%), hard mounted
- Ballistic Shock Operates during three half-sine shock impulses in each direction of each orthogonal axis (total of 18 shocks) at a peak amplitude of 50 G (-0%, +20%) and duration of 10 ms (-0%, +50), hard mounted
- Altitude Humidity 15,000 feet operating
3% to 100% relative humidity operating
- Sand/Dust Exposure to wind blown sand and dust particles at a rate of 20 ±3 miles per hour for 30 minutes

Environmental (MIL-STD-810E) cont

- Water No water penetration, 50 psig, 40 minutes, tightness spray from 3 feet per MIL-STD-810E, Method 506.3, Proc III
- Other Conditions Resistant to fungus, NBC and lightning
- Explosive Atmosphere Non-explosive when tested per MIL-STD-810E, Method 511.3, Proc. I
- Vibration Tracked Vehicles per MIL-STD-810E, Method 514.4, Category 8, Procedure 1, Table 514.4-AXIX when mounted on a standard shock isolation fixture. Wheeled Vehicles, 6dB below those same levels and 15 minutes per test phase when hard mounted.

Electromagnetic Compatibility

- EMI MIL-STD-461E, CE102, CS101, CS114, RE102, and RS103
- HAEMP Transient per MIL-STD-461E, RS105
Induced transients per MIL-STD-461E, CS116
- ESD 2000 V to I/O pins, non-operating
5,000 V to controls/surfaces, operating

Physical

- Weight 8.6 lbs.
- Dimensions 3.0"D x 11.53"W x 9.3"H

Electrical

- Input Voltage 110 VAC to DC conversion with external power supply or optional 28 VDC vehicle power

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12.1" GMD 01/30/08 ver. 1.0



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