

**24" Mil-Spec, COTS Rugged LCD Display  
 MRD-1824 Wall Mount Series**



The MRD1824 Series is a 24" Wall Mount COTS Military Display, this cost effective Brite Monitor is packaged in a rugged wall mount all metal frame enclosure. This monitor is designed for use in demanding environments that require high performance video, need to operate in a rough environment and has the flexibility to fit all specific customer requirements. COTS Military Displays typically requires specific configuration customization that is tailored for that specific application, the MRD-1824 Wall Mount Series was designed from the ground up to be extremely flexible to accommodate all COTS Military LCD Display requirements.

Our Military Rugged Displays (MRD) are designed with shock and vibration safeguards, provisions for extreme temperature operation, high moisture safeguards, as well as Electromagnetic Environmental Interference protection for use in extreme harsh weather conditions found in many Military Applications.

Target application platforms for the MRD-1824 Series COTS Military LCD Display include: Aircraft Simulator Displays, Ground Vehicles and Mobile Shelters, Military & Aerospace Displays, Surface Ships, US Navy Aircraft Traffic.

***Though rugged enough for most Land based and Shipboard Applications, the MRD-1824 24" rugged LCD is versatile, as well. With provisions for BNC Inputs and RS170 / RS343 Video Operation, the MRD-1824 COTS LCD Monitors allow for easy insertion into legacy technologies and reduces obsolescence risks.***

**Features:**

- 24" High Bright Active Matrix TFT Display with LED Backlight
- High Bright - 400 Nits Typical
- High Contrast – 800:1 Typical
- 15.75 to 100 KHz - Specially designed for Slow Scan Signals
- RS-170 (525 Line) & RS-343 (875-Line) Interlace Formats.
- 90-264VAC Auto Ranging Internal AC Power Supply
- Aspect Ratio: 1:1 or 4:3 (OSD Selection)
- Convenient Front Controls
- Image Size & Position Adjustment
- Front Manual Full Range Brightness (Dimming) and Contrast Control
- Full-Range Dimming to Black
- Anti-Reflective LCD Bonding for Superior Optical Performance and Better Protection on Extreme Environments
- Custom Designs Available; Including Spec, Color, Finish and Format

- Designed, Engineered and Built to comply with Military Standards
- Heavy Duty Aluminum Front Bezel
- Heavy Duty Cold Roll Steel Chassis
- VESA 100 Standard Mounting
- Conformal Coating of Internal Assemblies for Enhance Ruggedization
- Internal Ruggedized Construction

**Options:**

- Custom Designs based on Customer's Exact Needs
- Wireless Remote Control
- 12V, 24V, 28 and 48V DC Input Voltage Options
- Touch Systems: SAW, Resistive and Capacitive
- NTSC/PAL (RCA Jack) and S-Video (4 Pin Mini Din)
- CGA, EGA, MDA Input Video

## 24" Mil Spec, COTS Rugged LCD Display

| Specifications:              |  |
|------------------------------|--|
| LCD Size & Technology:       | 24.0" WUXGA Color TFT-LCD  |
| Viewing Area:                | 518.4 (H) mm x 324 (V) mm  |
| Pixel Pitch:                 | 0.270 mm x 0.270 mm  |
| LED Life Time (min):         | 0.270 mm x 0.270 mm  |
| Viewing Angle (H/V, Typ.):   | 89° (Left), 89° (Right) / 89° (Up), 89° (Down) @ CR = 10   |
| Contrast Ratio (Typ.):       | 800:1  |
| Brightness (Typ.):           | 400 Cd/m <sup>2</sup>  |
| Response Time (Typ. On/Off): | 5ms (Typ., on/off)   |
| Display Colors:              | 16.7M colors (RGB 8-bit data )   |
| Supported Video Formats:     | 1920 x 1200 @ 60 and 75 Hz - Optimal Native Resolution<br>Legacy Timing: 15KHz to 100KHz @ 50 to 85Hz. |
| Input Video Signals:         | Video: 0.7 Vpp @ 75 Ohms Sync on Green (SOG)   |
| Input Video Interface:       | Customer Option (BNC, Triax or Type N)   |
| External Connectors:         | Analog Video (Video 1 and Video 2), Input Power  |
| Display Controls             | OSD (On Screen Display) – Full functions<br>Video Input Selection – Front Panel                        |

|                           |   |
|---------------------------|---|
| Temperature:              | Operating: 0°C to 50°C, MIL-STD-810G, Method 501/502 Procedure II<br>Storage: -20°C to 60°C, MIL-STD-810G, Method 501/502, Procedure I  |
| Cold Start-Up:            | Start-up @ -30°C 10min usable picture. 20 min. full spec.   |
| Humidity:                 | Operating/Storage: 5 to 95% RH @ 40°C Non-Condensing. MIL-STD-810G, Method 507, Procedure I   |
| Altitude:                 | Operating: 0 to 10,000 ft. above sea level<br>Storage: 0 to 30,000 ft. above sea level, MIL-STD-810G, Method 500, Procedure I   |
| Shock:                    | Operational/Storage: 15 G, 11ms ½ Sine, MIL-STD-810G, Method 516  |
| Vibration:                | Operational/Storage: MIL-STD-810G, Method 514, Category 4 - Restrained Cargo, Category 5 - Loose Cargo (1 Hour/Axis)  |
| Drip Proof:               | Operational/Storage: MIL-STD-810G, Method 506 Procedure III. Front Panel Only   |
| EMI:                      | MIL-STD-461E Ground Army  |
| Sand Dust:                | MIL-STD-810G, Method 510 Procedure I – Front Panel Only   |
| Power Requirements:       | Power Supply: 100-240 VAC Auto Ranging 50-60 Hz (Option+12VDC @ 3A or 28VDC @ 1.5A.<br>Power Dissipation: 40 Watts<br>Option: 12VDC or 28VDC<br>Option: 115VAC, Single Phase, 400Hz (MIL-STD-704 Aircraft Power Requirements) |
| Power Connector:          | MS3450W14S-7P<br>Option: IEC320 Power Cord  |
| Dimensions & Weight:      | 15.6" (H) x 23.6" (W) x 3.12" (D) / Weight: 18.7 Lb.  |
| Mechanical Configuration: | Modular Mount   |
| Bezel Finish:             | Aluminum - Black Epoxy Powder Paint with Wrinkle Finish   |
| Construction:             | Metal Ruggedized for Severe Environments  |
| Warranty:                 | Two Year Limited Warranty   |

### **Dynamic Displays, Inc**

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