

**17" Mil-Spec, COTS Rugged LCD Display
 MRD-1817 Panel Mount Series**



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.

The MRD1817 is a 17" cost effective LCD Display, packaged in a rugged panel mount enclosure. This monitor is designed for use in demanding applications that require graphics, video, and other RGB data on a single, rugged display.

Target application platforms for the MRD-1817 Series COTS LCD Monitors include: fixed-wing aircraft, helicopters, surface ships, submarines, ground vehicles and mobile shelters.

Though rugged enough for most Land based and Shipboard Applications, the MRD-1817 17" rugged LCD is versatile, as well. With provisions for 3 / 4 / 5 Wire BNC Inputs and RS170 / RS343 Video Operation, the MRD-1817 COTS LCD Monitors allow for easy insertion into legacy technologies and lower obsolescence risks.

Features:

- 17.0 In SXGA TFT LCD Display with Solid State LED Backlight Designed
- 1280 x 1024 Native Resolution.
- High Contrast: 1000:1 Typical.
- High Bright TFT Display: 1200 Nits.
- Wide Viewing Angle: 85R/85L – 80U/80L.
- Bonded Anti-Glare Protective Faceplate Glass for Superior Optical Performance and Enhance Protection on Extreme Environments.
- Standard VESA VGA + DVI Input Timings.
- Analog RGB Sync On Green (SOG), Composite Sync or Separate Sync Inputs (5 BNC).
- RS-170 (525 Line) & RS-343 (875-Line) Interlace Formats – (5 BNC).
- 90-264VAC Auto Ranging Internal AC Power Supply.
- Aspect Ratio: 1:1 or 4:3 (OSD Selection).
- Front Manual Full Range Brightness and Contrast Control (Dimming).
- Extended Operating Temperature Rating: -30°C to +85°C.

- Convenient Front Controls.
- Internal Ruggedized Construction.
- Conformal Coating of Internal Assemblies for Enhanced Ruggedness.
- Heavy Duty Aluminum Front Bezel.
- Front Mounted Handles.
- NEMA 4/12 & IP65 Front Panel.

Options:

- Custom Designs Based on Customer's Exact Needs.
- NVIS Class A & B.
- 12VDC, 24VDC, 28VDC, and 48VDC Input Voltage.
- NTSC/PAL Composite Video (RCA Jack) and S-Video (4 Pin Mini-Din).
- 3 Buffered Unity-Gain BNC Outputs (RGB).
- Differential Video Input for Enhanced Noise Immunity.
- 91 Ohm Video Termination.
- Touch Screen: Resistive, Capacitive, and SAW.
- Wireless Remote Control.

17" Mil Spec, COTS Rugged LCD Display

| Specifications: | |
|------------------------------|--|
| LCD Size & Technology: | 17.0" SXGA Color TFT-LCD |
| Viewing Area: | 337.92 mm x 270.33 mm (13.30" x 12.75") |
| Pixel Pitch: | 0.264 mm x 0.264 mm |
| LED Life Time (min): | 50,000 Hours minimum |
| Viewing Angle (H/V, Typ.): | 85° (Left), 85° (Right) / 80° (Up), 80° (Down) @ CR = 10 |
| Contrast Ratio (Typ.): | 1000:1 |
| Brightness (Typ.): | 1200 Cd/m ² |
| Response Time (Typ. On/Off): | 5 ms |
| Display Colors: | 16.2M Colors |
| Supported Video Formats: | 1280 x 1024 @ 60 and 75 Hz - Optimal Native Resolution Legacy Timing: 15KHz to 68KHz @ 55 to 85Hz. |
| Input Video Signals: | Video: 0.7 Vpp @ 75 Ohms Sync: Separate or Composite Sync TTL Level (Positive/Negative) Sync on Green Video 0.7 Vpp and Sync 0.3 Vpp |
| Input Video Interface: | HD15 (VGA Analog) & DVI-D (DVI-D Connector) |
| External Connectors: | Analog HD15 D-Sub Input; Digital DVI-D Input, DC or AC Input. |
| Display Controls | OSD (On Screen Display) – Full functions |

| Environmental | |
|---------------------------|--|
| Temperature: | Operating: -30°C to 60°C, MIL-STD-810G, Method 501/502 Procedure II Storage: -30°C to 85°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 Storage: 0 to 15,000 ft. above sea level, MIL-STD-810G, Method 500, Procedure I |
| Rapid Decompression: | N/A |
| Explosive Atmosphere: | N/A |
| 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 |
| Crash Proof: | N/A |
| Salt/Fog: | N/A |
| Fungus: | N/A |
| Power Requirements: | Power Supply: 100-240 VAC Auto Ranging 50-60 Hz (Internal) or +12 VDC @ 3A (External). Power Dissipation: 40 Watts Option: 28VDC Option: Power Dissipation with Heater On: 80 Watts Typ. Option: 115VAC, Single Phase, 400Hz (MIL-STD-704 Aircraft Power Requirements) |
| Power Connector: | IEC320 Power Cord Standard Options: MS3102A10SL-3P, MS3450W14S-7P |
| Dimensions & Weight: | 13.58" (H) x 16.77" (W) x 4.17" (D) / Weight: 20 Lb. |
| Mechanical Configuration: | Modular Mount |
| Bezel Finish: | Aluminum - Black Epoxy Powder Paint with Wrinkle Finish |
| Construction: | Metal Ruggedized for Severe Environments |
| Options: | Touch Screen: Surface Acoustic Wave (SAW) and Resistive Screen Protection from Impact - Strengthened Glass NTSC / PAL NVIS Class A & B 5 BNC Input (RGB) TTL Video Input Option for EGA, CGA and MDA |
| Warranty | Two Year Limited Warranty |