



Military Grade Extreme Duty Video Monitor and Digital Video Recorder

MPC-ML2DVR

The MPC-ML2DVR Series is a marine grade flat panel Active Matrix LCD Monitor with Integrated Digital Video Recorder designed for rugged use where environmental conditions and operational reliability are beyond normal limits. The MPC-ML2DVR is designed to meet applicable military standards MIL-STD-810F, MIL-STD-461E and others, yet is cost effective for commercial use. It is available in 8.4", 10.4", 12.1" and 15" LCD sizes. The MPC-ML2DVR has an extremely bright (up to ~1,000 nit) LED backlit display for use full sunlight but dimmable to less than 1 nit for use on dark nights without destroying the user's night vision. This results in the maximum in readability under any conditions. Authorized US Government customers can also order NVIS for use with NVG's. Front mounted display setup and dimming control adjusts the display qualities and brightness with pushbutton simplicity, as well as providing real-time record-playback controls for the DVR. The MPC-ML2DVR connects to any RS-170 video source such as NTSC or PAL composite video from natural light, light amplified and thermal imaging cameras. Up to 4 separate camera inputs and one out are supported via standard BNC connectors mounted on the rear of the unit. Single source, P-in-P, PoP, and quad-view display settings are possible. Fully sealed MIL-C circular connectors on the rear allows for connection to customer provided cables or to our standard 3m. power and programming cables (ordered separately). A separate standard USB-A connector allows connection via customer supplied USB cable for external download of stored video data. The DVR records at 30fps at 24-bit resolution for over 32 hours of continuous recording, creating any number of .wmv files (.avi optional) for playback or download. The MPC-ML2DVR also includes 10 user programmable function buttons to allow close integration with intelligent camera systems or any other functionality via standard ES-232 serial connections. The precision milled aluminum case is the smallest possible allowing mounting where others can't fit. Our sealed construction eliminates fogging and give years of service with the roughest handling. Mounting is accomplished via a shock resistant adjustable ball mount (surface mount or flush bezel optional). Common applications include boarding/event video capture and underwater and surface inspection/investigation. The MPC-ML2DVR can be used in an open unprotected station, and with the RAM mount is easily and quickly removable from the vessel.



Standard Features

- Completely Sealed Case Rated IP67 Watertight.
- Designed to Meet MIL-STD-810F, 461E and others.
- 8.4", 10.4", 12.1" or 15" Color LED/LCD.
- Up to ~1,000 nit Ultra-Bright LED Backlighting.
- Dimmable Down to ~1 nit with last step Off.
- Optional NVIS Green/Red for US Agencies.
- Standard RS-170 NTSC or PAL Composite Video.
- Extreme Temperature Range: -40to70°C (-40to158F).
- Extended Shock, Vibe and Lifecycle Withstand.
- RAM Shock Resistant Adjustable Ball Mount.
- Integrated DVR with 24-bit 30 fps capture.
- 32GB Solid-State Storage using MPEG4 Compression.
- Anti-Reflective Protective Glass.
- Time Stamping to 1/100th second.
- Powered from 10-36 VDC, 30 watts Maximum.



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Specifications

- **Display** 8.4", 10.4", 12.1" 15" Active Matrix TFT LCD SVGA (800x600) Native Resolution (1024x768 for 15")
- **Brightness/Contrast** Up to 1,000 nits LED Backlit without increased power, Dimmable to ~1 nit, 1000:1 Contrast Ratio, NVIS Optional
- **Video Input/Outputs** RS-170 NTSC or PAL Composite Video, 4 - Inputs, 1 - Output
- **DVR Function** Start/Stop, Play/Pause, Fast Forward/Reverse, Capture Rate of 24-bit @ 30fps
- **Video File Storage** 32 GB Solid State Storage for in excess of 32 hours, 64GB Optional
- **Data Transfer** Time Stamping (1/100 second), MPEG4 / H.264 Compression, .wmv file format (.avi optional).
No limit to file size and number of files.
- **Cables** (Order Separately) Power Cable, Flying Leads, Prog./Data cable - 2 - DB-9 Serial Standard Length - 3m (10ft.), Custom Lengths Avail.
- **Connectors** MIL-DTL-38999 - Power and Programming BNC-F - Video
- **Housing** MIL-PRF-22750F, NEMA 6P/IP67 Rated Outdoor Weatherproof and Watertight, Main Case Black Anodized/Clear Coated Milled Aluminum Billet, All Stainless Steel Hardware
- **Optional Mounting** RAM Adjustable Shock Resistant Ball or Surface Mount Stud Kit
- **Power Supply** MIL-STD-1275D Wide Range DC Input (10-36 VDC), Nominal Operating Voltages 12, 24, 28 VDC
- **Power Consumption** Min: 6 watts Max: 30 Watts
- **Environmental** (MIL-STD-810F)

	Operating	Non-Operating
Temp. (Method 501.4 & 502.4)	-40°C to 70°C (-40°F to 158°F)	-40°C to 75°C (-40°F to 167°F)
Vibration (Method 528)	5.8 G	5.8 G
Shock (Method 516.5)	50 G	50 G
Relative Humidity (Method 507.4)	0% to 100%	0% to 100%
- **EMI/RFI** MIL-STD-461E (Selected ranges)
- **MTBF** 50,000 Hrs. (est.)

Attribute Model	Height	Width	Depth	Weight(lb.)	Native Resolution	Optional Resolution	Brightness(nits)	Viewing Angle (H x V)	Contrast Ratio
ML208DVR	6.90" 175mm	9.90" 251mm	2.50" 64mm	8	SVGA 800x600		800	160° x 160°	900:1
ML210DVR	8.13" 207mm	11.60" 295mm	2.50" 64mm	9	SVGA 800x600	XGA 1024x768	800 1000	160° x 160° 160° x 130°	900:1 700:1
ML212DVR	9.20" 234mm	13.00" 330mm	2.60" 66mm	10	SVGA 800x600	XGA 1024x768	550 1,000	160° x 140° 160° x 140°	600:1 600:1
ML215DVR	11.0" 279mm	14.86" 377mm	2.60" 66mm	13	XGA 1024x768		800	160° x 140°	800:1

(Note: MPC-ML products are designed to meet a broad range of MIL-STD's. Consult factory for current list of Certified Test results.)