

# MSM2D

## MIL SPEC MONITOR SERIES with DVI INPUT

On today's digital battlefield, rugged hardware must be designed to operate in any environment. DSE designs and manufactures highly reliable military COTS displays that meet and exceed key military specifications including MIL-STD-461, 810 and 1275.

### STANDARD FEATURES

- DVI-D Input (1)
- 8.4", 10.4", 12.1" (SVGA); 15" (XGA); 17" (SXGA)
- Auto Scaling VGA to UXGA
- MIL-C Connectors\*
- LED Backlight (3000:1 Dimming Ratio)
- Anti-Reflective and Anti-Glare Treatments
- Enhanced Sunlight Readability
- IP67/NEMA 6 Enclosure (Sealed Connectors\*)
- Bezel Keys
- 8.4", 10.4", 12.1", 15.0" and 17" TFT AMLCD
- MIL-STD-461, 810, 1275

### OPTIONAL FEATURES

- Resistive Touch Screen (USB or RS232 Interface)
- XGA Display Resolution (1024x768)
- Night Vision Compatible – Monochrome Red/Green
- NVIS MIL-STD-3009 Class B White Compliant

### MOUNT OPTIONS (Quoted individually)



\* Cables not included



Flush



Panel



Rack



RAM



LCD SIZE	RESOLUTION	LUMINANCE	VIEWING ANGLE	CONTRAST RATIO	MAXIMUM POWER CONSUMPTION
8.4" TFT AMLCD	SVGA (800x600)	800 nits	160° (H) x 160° (V)	900:1	20 Watts
10.4" TFT AMLCD	SVGA (800x600)	800 nits	160° (H) x 160° (V)	900:1	20 Watts
10.4" TFT AMLCD (Optional)	XGA (1024x768)	800 nits	160° (H) x 160° (V)	900:1	20 Watts
12.1" TFT AMLCD	SVGA (800x600)	600 nits	170° (H) x 170° (V)	750:1	20 Watts
12.1" TFT AMLCD (Optional)	XGA (1024x768)	1000 nits	160° (H) x 140° (V)	600:1	20 Watts
15.0" TFT AMLCD	XGA (1024x768)	600 nits	160° (H) x 160° (V)	600:1	40 Watts
17.0" TFT AMLCD	SXGA (1280x1024)	350 nits	160° (H) x 140° (V)	700:1	35 Watts

**TECHNICAL SPECIFICATIONS**

Display	8-bit color, 16,777,216 colors. TFT AMLCD (Thin-Film Transistor Active-Matrix Liquid-Crystal Display)
Dimming Ratio	3000:1
Video Input	DVI-D (1)
Connectors*	MIL-C Connectors
Housing	Milled Aluminum, Black Hard Anodized
Mount Options	Flush, Panel, Rack or RAM; Quoted individually.
Wide Range DC Power Input†	10-36 VDC (12, 24, 28 VDC nominal)
Power Conditioning	Protected against Internal Short Circuit, Load Dump, Over Voltage and Reverse Polarity

**ENVIRONMENTAL SPECIFICATIONS**

IP Rating	IP67 (NEMA 6 Submersible)
Operating Temperature	-40°C to 71°C (-40°F to 160°F); (-20°C (-4°F) with Touch Screen Option)
Storage Temperature	-51°C to 71°C (-60°F to 160°F)
Humidity	0-100%
Altitude	45,000 ft.

**MILITARY SPECIFICATIONS**

MIL-STD-461	EMI	MIL-STD-810	Method 512; Immersion
MIL-STD-704	Aircraft Power Requirements	MIL-STD-810	Method 513; Acceleration
MIL-STD-810	Method 500; Altitude	MIL-STD-810	Method 514; Procedure I, II, V, VI; General Vibration
MIL-STD-810	Method 501; I & II; High Temperature	MIL-STD-810	Method 516; Procedure I, Functional Shock
MIL-STD-810	Method 502; I & II; Low Temperature	MIL-STD-810	Method 520; Temp, Humidity, Vibe and Altitude
MIL-STD-810	Method 503; Temperature Shock	MIL-STD-810	Method 523; Vibro-Acoustic/Temp
MIL-STD-810	Method 505; Solar Radiation	MIL-STD-1275	Vehicle Power Requirements
MIL-STD-810	Method 506; Rain	MIL-STD-1472	Thermal Contact Hazard
MIL-STD-810	Method 507; Humidity	MIL-STD-3009	NVIS Compatible (Optional)
MIL-STD-810	Method 508; Fungus	MIL-PRF-22885	Sunlight Readability for Push Buttons
MIL-STD-810	Method 509; Salt/Fog	MIL-A-8625	Standard Finish, Type III, Class 1 & 2
MIL-STD-810	Method 510; Blowing Sand and Dust	MIL-PRF-22750	Painted Finish, Optional, Minimum Quantity Required
MIL-STD-810	Method 511; Explosive Atmosphere	MIL-DTL-26482	(and 38999) Connector, Qualified

\* - Cables not included.

† - Power range specified covers momentary environmental fluctuations generally found in a mobile environment while display is operating. For power initialization and continual operation, nominal voltages are required.

ON-GOING PRODUCT DEVELOPMENT MAY NECESSITATE DESIGN AND SPECIFICATION CHANGES WITHOUT NOTICE.

