

# FHDRM

## 1080p FULL HIGH DEFINITION RUGGED MONITOR SERIES

Built with a Full HD 1920x1080 LCD, the FHDRM Display Series deliver a MIL-Spec design with low-power consumption, high brightness backlight, and an ultra-thin form factor for critical operations requiring 1080p detail. The rugged FHDRM monitor ensures complete optical performance and full reliability while providing a small footprint for constrained spaces. User Programmable Bezel Keys allow full control of external systems or a custom interface of internal display features (video processing, picture layout, user interface preferences, and navigation shortcuts). Multiple mounting options allow for seamless integration within any rugged system.

### STANDARD FEATURES

- SDI Input (1), 3G/HD/SD
  - SMPTE 424M/292M/259M
- SDI Output (1), 3G/HD/SD
  - SMPTE 424M/292M/259M
- HDMI Input (1)
- DVI-I Input (1), Digital/Analog
- Composite Video Inputs (3)
- Composite Video Output (1)
- Auto Sensing NTSC, PAL Formats
- Up to 1080p30 High Definition Video
- User Programmable Bezel Keys (15), RS232
- MIL-C Power\*
- LED Backlight (1000:1 Dimming Ratio<sup>1</sup>)
- Anti-Reflective and Anti-Glare Treatments
- Enhanced Sunlight Readability
- IP67/NEMA 6 Enclosure (Sealed Connectors\*)
- 7.0", 10.1", 13.3", 15.6", 17.3" and 24" TFT AMLCD
- MIL-STD-461, 704, 810, 1275

### OPTIONAL FEATURES

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



\* Cables not included

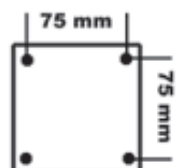
### MOUNT OPTIONS (Quoted individually)



PANEL



RAM



VESA



LCD SIZE	RESOLUTION	LUMINANCE	VIEWING ANGLE	CONTRAST RATIO	MAXIMUM POWER CONSUMPTION
7.0" TFT AMLCD	1920x1080	500 nits	140° (H) x 120° (V)	600:1	30 Watts
10.1" TFT AMLCD	1920x1200	800 nits	170° (H) x 170° (V)	800:1	35 Watts
13.3" TFT AMLCD	1920x1080	400 nits	178° (H) x 178° (V)	800:1	35 Watts
15.6" TFT AMLCD	1920x1080	400 nits	178° (H) x 178° (V)	1000:1	35 Watts
17.3" TFT AMLCD	1920x1080	400 nits	160° (H) x 140° (V)	600:1	40 Watts
24" TFT AMLCD	1920x1200	900 nits	178° (H) x 178° (V)	1000:1	75 Watts

**TECHNICAL SPECIFICATIONS**

Display	8-bit color, 16,777,216 colors. TFT AMLCD (Thin-Film Transistor Active-Matrix Liquid-Crystal Display)
Dimming Ratio <sup>1</sup>	1000:1
Video Inputs <sup>2</sup> /Outputs <sup>2</sup>	SDI (1) 3G/HD/SD, HDMI (1), DVI-I (1) Digital/Analog, Composite Video (3); Auto Sensing NTSC and PAL-BGHID Formats; SDI (1) 3G/HD/SD, Composite Video (1)
Housing	Milled Aluminum, Black Hard Anodized
Mount Options	Panel, RAM, VESA (75mm); Quoted individually.
Wide Range DC Power Input <sup>†</sup>	10-36 VDC (12, 24, 28 VDC nominal); 24" is 16-36 VDC (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	-46°C to 71°C (-51°F to 160°F); -20°C (-4°F) with Touch Option
Storage Temperature	-54°C to 71°C (-65°F to 160°F)
Humidity and Altitude	0-100%; 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-1275	Vehicle Power Requirements
MIL-STD-810	Method 505; Solar Radiation	MIL-STD-1472	Thermal Contact Hazard
MIL-STD-810	Method 506; Rain	MIL-STD-3009	NVIS Compatible (Optional)
MIL-STD-810	Method 507; Humidity	MIL-PRF-22885	Sunlight Readability for Push Buttons
MIL-STD-810	Method 508; Fungus	MIL-A-8625	Standard Finish, Type III, Class 1 & 2
MIL-STD-810	Method 509; Salt/Fog	MIL-PRF-22750	Painted Finish, Optional, Minimum Quantity Required
MIL-STD-810	Method 510; Blowing Sand and Dust	MIL-DTL-26482	Connector, Qualified
MIL-STD-810	Method 511; Explosive Atmosphere	MIL-DTL-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.  
<sup>1</sup> - Dimming Ratio is LCD-specific.  
<sup>2</sup> - Configuration-Specific; Contact DSE for details.

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

