

MD9014

Multi-Function Display Unit



Rugged Multi-Function Vehicle Display/Video Processor

The MD9014 is a lightweight, ultra-rugged, multi-function display capable of displaying high-resolution sensors for tactical and combat vehicles.

Combining mission-critical display, and video processing in a size, weight, power and cost effective package.

The MD9014's wide range of open-standard I/O allows seamless integration with open standard Vehicle Electronic Architectures as well as most legacy subsystems.

Designed for operations in the most demanding combat vehicle environments ranging from Light Tactical Wheeled to Heavy-Brigade Tracked Vehicles.

Features:

- High Resolution, Sunlight readable 14" FHD Touchscreen display
- Display native imagery from high-resolution sensors
- Eight backlit multi-function bezel buttons
- Optimized bezel and mounting for nested multi-monitor modular installations
- FPGA-based video processing enables lowest latency video processing with feature growth capabilities
- Designed to support centralized computing architectures
- Embedded H.265 video encoder/decoder provides sensor video distribution between stations
- Sustained life cycle support
- ITAR Free

Technical Information

Optical Characteristics

Resolution	1920 x 1080
Size	14"
Contrast Ratio	800:1
HACR	5.66:1
Brightness	500 cd/m ²
Dimming Range	<0.15 to 500 cd/m ²
Viewing Angle	±70°H, ±70°V
Touch Screen	Resistive
Bezel	8 backlit programmable buttons
Night Vision	MIL-STD-3009 class B option
Latency	50 ms (signal-to-photon)

Physical Characteristics

Size (w x h x d)	344 x 234 x 54 mm (13.54" x 9.22" x 2.14")
Weight	6.1kg (13.5 lbs)
Connectors	MIL-C-38999
Input Power	45W (typical) MIL-STD-1275

Functional Characteristics

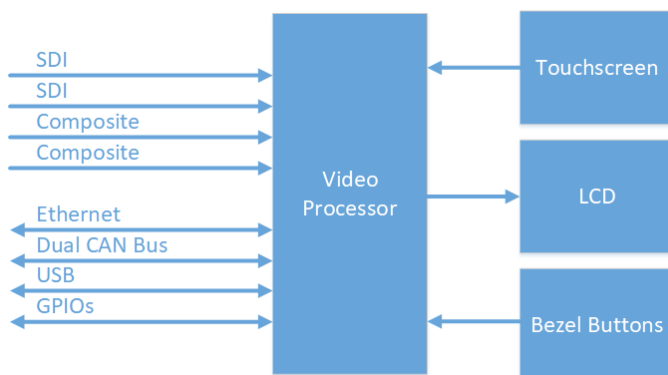
Interfaces	2 SMPTE 424M/292M SDI	
	2 SMPTE 170M Analog Composite	
	2 ISO 11898 CAN Bus	
	1 IEEE 802.3ab Gigabit Ethernet	
	1 USB HID Compliant Touchscreen Interface	
	1 USB composite HIDs	
	10 general purpose inputs/outputs	
	Embedded VoE	Embedded Video over Ethernet Processor
		Multi-channel H.264/H.265 encoder and decoder
		DEF STAN 00-082 VIVOE uncompressed

Environmental Conditions

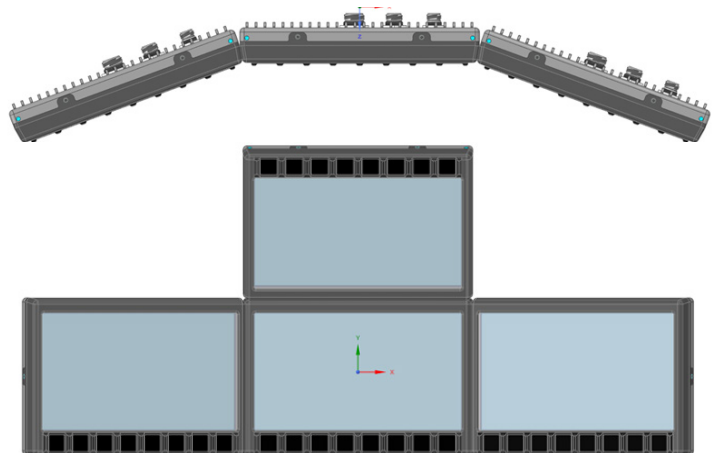
Operating Temperature	-40°C to +60°C
Storage Temperature	-51°C to +71°C
Vibration	MIL-STD-810H Method 514.8, Procedure I » Category 4 Composite Wheeled vehicles » Category 20 Tracked vehicles
Shock	Operational: MIL-STD-810H Method 516.8, Procedure I Crash Hazard: Method 516.8, Procedure V Bench Handling: Method 516.8, Procedure VI
Immersion	MIL-STD-810H, Method 512.6, Procedure I
Altitude	MIL-STD-810H, Method 500.6, Procedures I & II
Humidity	MIL-STD-810H, Method 507.6 Procedure II, Aggravated
Sand Dust	MIL-STD-810H, Method 510.7, Procedures I & II
Salt Fog	MIL-STD-810H, Method 509.7
EMI/EMC	MIL-STD-461F
Touchscreen Display	Wrench Drop and Bootkick
CBRN	FM 3-11 hardened
Nuclear	Weapons Effects Hardened

The multi-function display described here represents a general configuration of this family of products. Specifications are configurable for specific customer requirements. For pricing and availability interfaces, bezel buttons, casings, connectors and other information, please contact your General Dynamics representative.

Block Diagram



Suggested Multi-Monitor Arrangement



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