

# MD9012

## Rugged Multi-Function Display



### Rugged Multi-Function Vehicle Display/Video Processor

The MD9012 is a lightweight, ultra-rugged, multi-function display capable of displaying high-resolution sensors for on-the-move applications.

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

The MD9012'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 vehicle environments ranging from Light Wheeled to Heavy Tracked Vehicles.

### Features:

- High Resolution, Sunlight readable Touchscreen display
- Natively display high-resolution sensors imagery
- Open-standards based
- Embedded video processing with lowest latency CPU-independent visualization
- Embedded H.265 video encoder/decoder provides sensor video distribution, recording and playback
- Embedded Gigabit LAN switch
- Expansion provisions enable platform customizations
- Highly integrated LRU reduces Size, Weight, Power and Cost (SWaP-C) relative to distributed architectures
- Sustained life cycle support

# Technical Information

## Optical Characteristics

Resolution	2560 x 1700
Size	12.9"
Contrast Ratio	1000:1
HACR	7:1
Brightness	1000 cd/m <sup>2</sup>
Dimming Range	<0.15 to 1000 cd/m <sup>2</sup>
Viewing Angle	±70°H, ±70°V
Touch Screen	Resistive multi-touch
Bezel	32 backlit buttons

## Physical Characteristics

Size (w x h x d)	324 x 281 x 82.3 mm (12.75" x 11.07" x 3.24")
Weight	7.8kg (17.25 lbs)
Connectors	Rugged circular
Input Power	12 to 32 VDC, 40W (typical)

## Video

Processing	FPGA-based Instant-on video Picture-in-Picture and Multi-view display
Text overlay	Chroma-keyed or alpha-blended graphics overlay
Video Inputs	8 RS-170A analog composite: NTSC/PAL 1 Display port 1.2 2 3G-SDI digital
Video Output	4 RS-170A analog composite: NTSC/PAL
Embedded VoE	Dedicated Video over Ethernet Processor Multi-channel H.264/H.265 encoder and decoder Uncompressed VIVOE decoder per DEF STAN 00-82

## Environmental Conditions

Operating Temperature	-46°C to +71°C
Storage Temperature	-51°C to +71°C
Vibration	MIL-STD-810
Shock	MIL-STD-810
Water Tightness	IP67
Humidity	MIL-STD-810
Sand Dust	MIL-STD-810
EMI/EMC	MIL-STD-461
Other	Wrench Drop and Bootkick

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.