GENERAL DYNAMICS
Mission Systems

SD8010

Smart Display Unit

Intel™ 3rd Gen Core i7 Rugged Computer in a 10.4" Rugged Touchscreen Display

The SD8010's 3rd Gen intel™ Core-i7 processor provides cutting-edge computing capabilities suitable for the most demanding in-vehicle applications. Offering significant size, weight, power and cost (SWaP-C) savings over traditional multiple unit solutions, the smart display meets extreme rugged requirements for applicability to the most severe platform environments. The SD8010 offers a sunlight viewable 10.4" XGA LCD touchscreen with hardened surface, wide range of input/output options, and internal expansion capabilities.

Features:

- 10.4" Direct sunlight readable and NVIS compatible XGA display with touchscreen
- 3rd Gen intel™ Core-i7 processor
- MILS OS/hypervisor support
- Extended temperature range operation
- Touchscreen and function keys
- Removeable hard drive for data at rest security
- Switching of multiple digital and analog video inputs
- CANBus Vehicle interfaces
- Video processor for control/display of multiple sensor video
- Support for DVR and Video over Ethernet
- ITAR-free

Technical Information

Processor Unit

CPU	3rd Gen Dual Core-i7 @ 1.7GHz
Chipset	Intel QM77 with VT-x and VT-d, TXT
Memory	8GB DDR3 with ECC
Graphics	Intel™ Integrated Graphics Controller
Storage	Removable Solid State SATA2.0, (64GB and up)
OS Support	Microsoft Windows, Linux

Interface

Serial Ports	1x RS-232
	1x Configurable RS-232/422/485
	1x RS-485
Ethernet	2x Gigabit Ports to processor unit
	2x Gigabit Ports to built-in Ethernet Switch
USB	3x USB 2.0 ports
Audio Output	1x Isolated Audio Output
CANBus	2x CAN ports
Power	MIL-STD-1275D
Security	High Assurance Platform (HAP) MILS option

Optical Characteristics

Resolution	1024 x 768 (XGA)
Size	10.4"
Contrast Ratio	500:1 (typical), HACR > 5.6
Brightness	>250 fL
Dimming Range	<0.05 fL to >250 fL
Viewing Angle	+/-65°H; +/-55°V at full brightness in all axes
Touch Screen	Resistive
Bezel	32 backlit keys option
	Custom key configurations available

Video

Video Input	4x NTSC/PAL/RS170A
	VGA (1024 x 768 @ 60Hz)
Video Output	VGA (1024 x 768 @ 60Hz)
	3x NTSC/PAL/RS-170A
Video Switching	Software controlled; external command
Processing	Low latency, processor independent
Viewscape™	Picture-in-picture, multi-view, filmstrip and overlays.
Video Capture	Digitizing and encoding (MPEG4 / MJPEG/H264) of 4 simultaneous video inputs for storage or network distribution

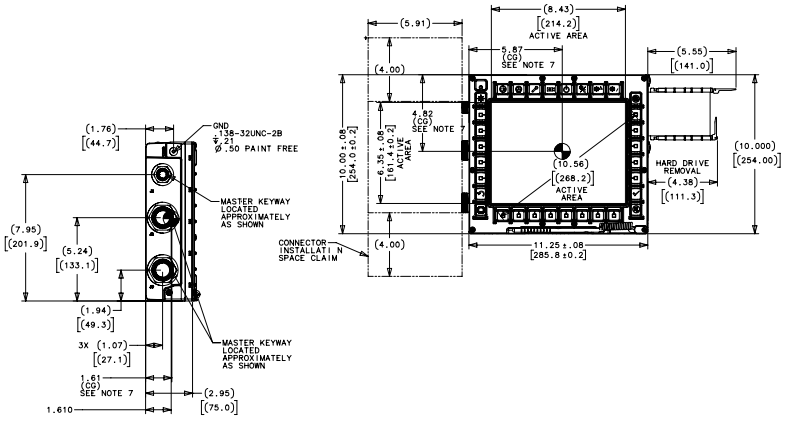
Physical Characteristics

Size	11.25"w x 10.0"h x 3.0"d
Weight	<16.0 lbs (quad core option)
Connectors	Sealed MIL-C-38999

Environmental Conditions

Operating Temperature	-40°C to +49°C
Storage Temperature	-46°C to +71°C
Vibration	MIL-STD-810G Method 514.5, Procedure 1
	Composite Tracked and Wheeled Vehicle
Shock	MIL-STD-810G
	Operational: Method 516.5, Procedure I
	Bench Handling: Method 516.5, Procedure VI
	Crash Hazard: Method 516.5, Procedure V
Water Tightness	MIL-STD-810G Method 512.4, Procedure I
Altitude	MIL-STD-810G Method 500.4, Proc. I & II
Humidity	MIL-STD-810G Method 507.4
Sand Dust	MIL-STD-810G, Method 510.4, Proc I & II
Explosive Atmosphere	MIL-STD-810G, Method 511.4, Procedure I
Salt Fog	MIL-STD-810G, Method 509.4
EMI/EMC	MIL-STD-461G
Other	Nuclear Hardened
	Wrench Drop LCD
	Bootkick LCD

General Dynamics products are based on proven, configurable modules and are available in standard or custom configurations. For availability and details of specific configurations or for custom requirements, please contact General Dynamics.



GENERAL DYNAMICS
Mission Systems

1941 Robertson Road • Ottawa, Ontario • CANADA • K2H 5B7 • Phone +1 613-596-7000 • info@gd-ms.ca • www.gdmissionsystems.ca