# GENERAL DYNAMICS
Mission Systems

# SD8010

## Smart Display Unit



**Rugged 10.4'' touchscreen display
with Intel™ 3rd Gen Core i7 processor**

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

## 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 | >850 cd/m2 |
| Dimming Range | <0.15 cd/m2 to >850 cd/m2 |
| 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 (w x h x d) | 285.75 x 254 x 76.2 mm (11.25" x 10.00" x 3.00") |
| Weight | <7.25kg (<16 lbs) |
| Connectors | Sealed MIL-C-38999 |

## Environmental Conditions

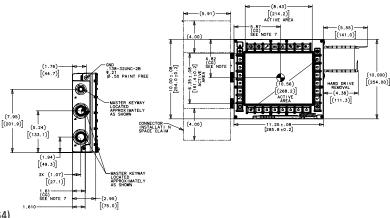| | |
|---|---|
| Operating Temperature | -40°C to +60°C |
| Storage Temperature | -46°C to +71°C |
| Vibration | MIL-STD-810G Method 514.5, Procedure 1 |
| | Composite tracked and wheeled vehicle |
| Shock | MIL-STD-810G |
| | Operational: Method 516.5, Procedure I |
| | Bench Handling: Method 516.5, 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

CANADA
gdmissionsystems.ca
info@gd-ms.ca

UNITED KINGDOM
gd-ms.uk
enquiries@gd-ms.uk

SD8010_032222