

SD7210

10.4" XGA Smart Display with Intel® Core™2 Duo and NVIDIA Graphics



*Designed specifically for
On-The-Move operation in
Armored and Tactical Vehicles.*

10.4" XGA Display

Intel® Core™2 Duo Processor

NVIDIA 9650M GT Graphics

MIL-STD-810 Qualified

Overview

The SD7210 provides cutting edge computing capabilities suitable for the most demanding in-vehicle applications, including embedded training and mission rehearsal, while at the same time providing significant SWaP-C savings over traditional multiple LRU solutions. The SD7210's display is a sunlight viewable and NVIS compliant 10.4" XGA screen that meets the rugged requirements of ground mobile vehicle applications.

Features

- 10.4" Sunlight viewable XGA display ruggedized for severe applications
- Intel® Core™2 Duo Processor @ 1.86GHz
- Full operation over extended temperature range (-46°C to +52°C)
- Multiple soldier-machine interface options: Touch Screen, Bezel Keys, USB Interface devices
- Dual CANBus
- Five video inputs (4x NTSC/RS170A, 1x VGA)
- Three video outputs (2x NTSC/RS170A, 1x VGA)
- MIL-STD-1275A power supply

Technical Information

Processor Unit

CPU	Intel® Core™2 Duo 1.86 GHz or 1.2GHz or 1.06GHz
Memory	Up to 8GB DDR3-1066
Video Controllers	AMD M72 with 128MB dedicated memory. Optional configuration with NVIDIA 9650M GT with 512mb dedicated memory on PCI-E x16 supports three independent video streams (Internal LCD + two external displays).
Storage	Removable 64 GB Solid State SATA with secure erase. Optional CompactFlash.
Keyboard port	USB
Serial ports	Two RS-232 and one RS-485
Audio	Two independent headset outputs and Microphone or Line Input
USB	Four USB2.0 Ports (UHCI and EHCI) from 2 independent controllers.
Ethernet	Two 10/100/1000 BaseT Ethernet
CANBus	Two ISO 11898-compliant CAN interface (up to 1 Mbit/s with J1939 support)
LPT	One IEEE 1284 compliant LPT/Printer port
OS support	MS Windows, Linux
Power supply	MIL-STD-1275A/B 6 V Initial Surge, 16 V cranking Reverse polarity protection Nuclear Event Detection

Video

Inputs	4 NTSC/RS170 video inputs, 1 VGA video input (selectable through bezel keys or software API)
Outputs	VGA Output with resolutions up to 2048 x 1536 @ 75 Hz Two NTSC/RS170 video outputs capable of displaying ANY of the NTSC inputs or ANY of the internal computer video streams.
Processing	Embedded Video design enables video switching, windowing, overlays and summation of any of the 3 internally generated video's and/or the 5 video inputs. Resultant streams may be displayed on the internal LCD or to an external display via the VGA or RS170 video output channels.
Capture	Optional video capture card provides compression (MPEG4 or MJPEG) and distribution (GbE) of 4 simultaneous NTSC/RS170 video inputs.

Physical Characteristics

Size	12.22" w x 10.97" h x 4.6" d
Weight	21 lbs
Connectors	MIL-C-38999

GENERAL DYNAMICS Canada

Vetronic Systems • Battlefield Computing Products • Smart Displays • smart.displays@gdcanada.com
www.gdcanada.com/sd

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Environmental Conditions

Operating Temp	-46°C to +52°C
Storage Temp	-46°C to +85°C
Vibration	MIL-STD-810F Method 514.5, Procedure 1 Composite Tracked (isolation kit) and Wheeled Vehicle (no isolation)
Shock	MIL-STD-810F Operational: Method 516.5, Procedure I (40g 7.5 ms) Bench Handling: Method 516.5, Procedure VI Crash Hazard: Method 516.5, Procedure V
Water Tightness	50 PSIG
Altitude	MIL-STD-810F Method 500.4, Proc I (-200 to 15000 ft)
Humidity	MIL-STD-810F Method 507.4 (95% RH non condensing)
Sand Dust	MIL-STD-810F, Method 510.4 (20 mph for 30 min)
Explosive Atmosphere	MIL-STD-810F, Method 511.4, Procedure I
Salt-Fog	MIL-STD-810F, Method 509.4 (35°C 48 hrs)
EMI/EMC	MIL-STD-461F (conducted emissions and susceptibility)

Display

Resolution	1024 x 768 (XGA)
Size	10.4 inch diagonal
Contrast Ratio	>1200:1 (Typ.)
Brightness	>120 fL NVIS compatible
Dimming Range	<1.0 fL to > 100 fL
Viewing Angle	>80 Degrees in all axes Up/Down/Left/Right
Touchscreen	Optional USB Resistive (low reflectance) with scratch and shatter resistant layer
Bezel	32 individually controllable backlit keys including 4 directional keys controllable through software API

The smart display described represents a typical configuration of this product. Specifications may be configurable for specific customer requirements. For specifics on interfaces, bezel buttons, casings, connectors, and other configurations, please contact your GD Canada representative.

