

19"/2"® CS2213



Rugged Computer

The 19"/2"® CS2200 Series computer offers a rugged Military-Off-the-Shelf (MOTS) high-performance computer in a rugged half rack form factor. It comes with a powerful Xeon processor and is of course passively cooled.

Small form factor

The MilDef 19"/2"® form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

Flexible mounting

The 19"/2"® standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly on to a surface and at any angle.

Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

Customizable

Are you looking for additional features and functions? MilDef specializes in customized solutions, to include change of connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef Sales Office and we will help you tailor a solution to meet your exact requirements.

Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

Features

- Up to 64 GB ECC DDR4 SO-DIMM 2666 MHz RAM
- Up to 1 TB internally
- M.2 SSD SATA3
- 2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML
- 12-32 VDC
- Passively cooled

Connector Interfaces

DC IN (front)	• 1x Power
SERVICE (back)	• 1x RS232 Service
X1 (front)	• 2x RS232/RS422 • 1x AUDIO OUT • 1x AUDIO IN • 4x USB2.0
X2 (front)	• 4x ETH 1000BASE-T • 1x USB2.0
X3 (front)	• 2x VGA • 1x Digital-IO • 1x USB2.0

Other Interfaces

1x Battery cover (bottom)
1x SATA indicator (front)
1x System button (front)

Technical Specification

Blanking	Double-pressing the System button
Computer memory	Up to 64 GB ECC DDR4 SO-DIMM 2666 MHz RAM
Computer secondary memory	Up to 1 TB internally
Internal disk	M.2 SSD SATA3
LAN 1000BASE-T	1000BASE-T standard
LAN POE compatibility	Type 1 (PoE) and 802.3at Type 2 (PoE+)
Processor	2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML 6 cores, 12 threads
MIL-STD-1275E	Fully compliant
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Power consumption	100 W with heater
Power input	12-32 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-7703820 (RAL7038)
Cooling	Passively cooled
Dimensions width and height	220 x 43.4 mm (8.66 x 1.71 in) (WxH)
Earth point	M6 12 mm
Rack mounting depth	400 mm (15.8 in)
Surface treatment chassis	Chromit-Al
Unit depth	368 mm (14.5 in)
Weight	3.5 kg (7.8 lbs)
MTBF	118,146 h

CE	Compliant
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Environmental Specification

Functional shock - Operating	MIL-STD-810G, Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40 g 11 ms
High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)
High temperature - Storage	MIL-STD-810G, Method 501.5, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 % RH Ten 24 h cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X7
Low air pressure - Rapid decompression	MIL-STD-810G, Method 500.5, Procedure III - Rapid decompression 75.2 kPa, corresponding to 2,438 m (8,000 ft) 17 kPa, corresponding to 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)
Low temperature - Storage	MIL-STD-810G, method 502.5, Procedure I - Storage -40 °C (-40 °F)
Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
Salt fog	MIL-STD-810G Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Temperature shock - Operating	MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)
Vibration - Helicopter	MIL-STD-810G, Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter



Vibration - Loose cargo	MIL-STD-810G, Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
Vibration - Tracked vehicles	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
Vibration - Wheeled vehicles	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102 BASIC CURVE 10 kHz to 10 MHz
EMS conducted CS101	MIL-STD-461F, Method CS101, conducted susceptibility, power leads. CURVE #1 30 Hz to 150 kHz
EMS conducted CS114	MIL-STD-461F Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F 10 kHz - 100 MHz
EMS radiated RS103	MIL-STD-461F Army 2 MHz - 1 GHz