19"/2 ® CS2281

Computer in a 19"/2 ® form factor

Small form factor

The CS2281 gives you a high performance computer with a powerful NVIDIA GPU. It comes in the 19"/2 ® form factor, optimized for low Size, Weight and Power (SWaP) 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

- NVIDIA® A1000
- 10GBASE-SR, MM 850nm
- 2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML
- 12-36 VDC
- Passively cooled

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Connector Interfaces

FAN1, FAN2 (back)	2 connectors which each has: • 1x FAN
SERVICE (front)	• 1x RS232 Service
X1 DC IN (front)	• 1x Power
X2 (front)	• 2x RS232 • 1x AUDIO • 1x CAN 2.0 • 1x Remote power • 1x Status
X3 (front)	• 1x 1000BASE-T
X4-X6 (front)	3 connectors which each has: • 1x USB3.0
X7 (front)	• 1x ETH 10GBASE-SR
X8-X9 (front)	2 connectors which each has: • 1x DVI

Other Interfaces

1x Battery cover (back)

1x System button (front)

Technical Specification

Blanking	Double-pressing the System button
Blanking	Enable/disable all externally visible indicators from emitting light via the "blanking command"
Computer graphics	NVIDIA® A1000
Fiber characteristics	MM 850 nm 50/125
Graphics resolution	Max 1920 x 1200 @ 60H on DVI.
LAN 1000BASE-T	1000BASE-T standard
LAN 10GBASE-SR	10GBASE-SR, MM 850nm
Processor	2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML 6 cores, 12 threads
Electronics ground to chassis	Isolated
MIL-STD-1275E	Fully compliant
Polarity protection	Protected against incorrect polarity connection on the power input within the normal operating voltage range
Power consumption	150 W
Power input	12-36 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	RAL1013-HR
Cooling	Passively cooled
Dimensions width and height	220 x 87.85 mm (8.7 x 3.5 in) (WxH)
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Weight	7.3 kg (16.1 lbs)
MTBF	> 35,000 h
CE	Compliant

Environmental Specification

Functional shock - Operating	MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground materiel 40 g 11 ms
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid decompression	MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression 2,438 m (8,000 ft) 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage 4,572 m (15,000 ft)
Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
STANAG 2895 C2	Cycle C2 Cold -46 °C
STANAG 2895 Climate	A1
STANAG 2895 A1	Cycle A1 Extreme Hot Dry 49 °C 71 °C
STANAG 2895 A3	Cycle A3 Intermediate 39 °C 58 °C
STANAG 2895 A2	Cycle A2 Hot Dry 44 °C 63 °C
STANAG 2895 B1	Cycle B1 Wet Warm 32 °C
STANAG 2895 B2	Cycle B2 Wet Hot 35 °C 63 °C
STANAG 2895 B3	Cycle B3 Humid Hot Coastal Desert 41 °C 71 °C

STANAG 2895 C0	Cycle C0 Mild Cold -19 °C
STANAG 2895 C1	Cycle C1 Intermediate Cold -32 °C
Salt fog	MIL-STD-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Temperature shock - Operating	MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-Cycle Shocks from Constant Extreme Temperature 55 °C (131 °F) -30 °C (-35 °F)
Vibration - Helicopter	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose cargo	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
Vibration - Tracked vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
Vibration - Wheeled vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

EMC Specification

Def Stan 59-411	Def Stan 59-411 Land Class A limits: DCE01 (500 Hz - 100 MHz) DCE02 (500 Hz - 150 MHz) DCE03 (Transient) DCS01 (20 Hz - 50 kHz) DCS02 (50 kHz - 400 MHz) DCS03 (20 Hz - 50 kHz) DCS06 (Transient) DCS10 (Transient) DRE01 (14 kHz - 18 GHz) DRE02 (20 Hz - 250 kHz) DRE03 (1.6 MHz - 88 MHz) DRE04 (Operating frequency range for the receiver under test) DRS01 (20 Hz - 100 kHz) DRS02 (10 kHz - 18 GHz) DRS03 (High level static magnetic field (and rate of change of field))
ESD CS118	MIL-STD-461G