

# 19"/2 Computer CS2121



## High-performance Xeon computer

The 19"/2 CS2121 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, removable M2 SSD disk and of course passively cooled.

### Small form factor

The MilDef 19"/2 is a small form factor modular design that can be used either standalone or as part of a bigger solution. MilDef has engineered the 19"/2 product family from the inside out for harsh tactical environments where the customer can tailor the specification to its specific needs. A broad selection of servers, switches, routers and power modules together with the flexible mounting options enable the 19"/2 units to be used as building blocks for a system solution, where you need a rack-based solution or a highly customized mounting solution.

## Guaranteed performance

Our products always come with a lifetime support to ensure your equipment maintains peak performance for many missions to come. We also guarantee spare parts for 5 years after product end-of-life.

### Features

- Intel Xeon E3-1505L V5 processor
- Intel HD Graphics P530
- 32GB RAM ECC
- 4x Gigabit Ethernet
- 4x USB 3.2 gen 1
- 2x RS232/RS422
- 3x Video out
- Passively cooled
- Removable M2 SDD (NVMe)

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## Connector Interfaces

COM1 (front)	• 1x Serial RS232/422
COM2 (back)	• 1x Serial RS232/422
DVI (back)	• 1x DVI-D
DC IN (front)	• 1x Power
ETH1-EHT4 (front)	4 connectors which each has: <ul style="list-style-type: none"> <li>• 1x ETH 1000BASE-T</li> </ul>
HDMI (front)	• 1x HDMI
SERVICE (back)	• 1x RS232 Service
USB1/2 (front)	• 2x USB 3.0
USB3/4 (back)	• 2x USB 3.0
VGA (back)	• 1x VGA

## Other Interfaces

1x Battery Cover (bottom)
1x MilDef M.2 Disk Slot (front)
1x System Button (front)

## Technical Specification

Blanking	Double-pressing the System button
Computer Graphics	Intel HD Graphics P530
Computer Processor	Intel Xeon E3-1505L V5 processor
Computer primary memory	Up to 32 GB RAM ECC
Graphics resolution	Max 1920 x 1200 @ 60H on all video interfaces.
IPMI SSIF access	IPMI 2.0 (limited feature set) SSIF Interface
CMOS Battery	Replaceable CMOS battery, located behind a cover for easy access.
Storage	Disk caddy support M2 SSD NvMe 2280. Different sizes are available, please get in contact with your local sales office for more info.
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation.
Power consumption	Idle 25 W (OS only) Typical 55 W(50% load, no USB load) Max 100 W(active disk heater,100% load, max USB load)
Power input	12-32 VDC
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions Width and Height	220x44mm (8,66x1,74 inch) (WxH)

Earth point	M6 12mm
Rack Mounting depth	400mm (17,4 inch)
Surface treatment chassis	Chromit-Al
Weight	4 kg (8,9 lbs)
MTBF	Greater than 105910 h

## 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 40g 11 ms
High temperature - Operating	MIL-STD-810G, method 501.5, Procedure II - Operation 65 °C (149 °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-hour cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid Decompression	MIL-STD-810G, Method 500.5, Procedure III - Rapid Decompression 75.2kPa, corresponding to 2,438m (8.000 ft) 17kPa, corresponding to 12192m (40.000 ft)
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4572m (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 40dB SPL A-weighting @ 1m (3,3 ft) distance
Salt fog	MIL-STD-810G Method: 509.5 5% +- 1% (by weight) Two cycles, 24h wet + 24h 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)

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<b>Transit drop, in shipping package</b>	MIL-STD-810G, method 516.6, Procedure IV - Transit Drop. Table 516.6-VI, Transit drop test, < 45.4 kg (100 lbs), < 91 cm (36 inch), Manpacked or man-portable
<b>Vibration - Helicopter</b>	MIL-STD-810G. Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
<b>Vibration - Loose Cargo</b>	MIL-STD-810G. Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
<b>Vibration - Tracked Vehicles</b>	MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
<b>Vibration - Wheeled Vehicle</b>	MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

## EMC Specification

<b>CE EMI</b>	EN61000-6-3:2007
<b>CE EMS</b>	EN55032:2015
<b>EMI conducted CE102</b>	MIL-STD-461F, Method CE102 BASIC CURVE 10kHz to 10MHz
<b>EMI radiated RE102</b>	MIL-STD-461F 2MHz - 18Ghz Navy Mobile & Army
<b>EMS conducted CS101</b>	MIL-STD-461F, Method CS101, conducted suceptibility, power leads CURVE #1 30Hz to 150kHz
<b>EMS conducted CS114</b>	MIL-STD-461F 10kHz - 200MHz Army, Ground
<b>EMS conducted CS115</b>	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
<b>EMS conducted CS116</b>	MIL-STD-461F 10 kHz to 100 MHz
<b>EMS radiated RS103</b>	MIL-STD-461F 2MHz to 1GHz Army
<b>ESD</b>	EN61000-4-2:2009 Level 3 EN50024:1998 Performance criteria B + A1:2001 + A2:2003