AVR-500 Rugged Airborne/Vehicle Server

Features

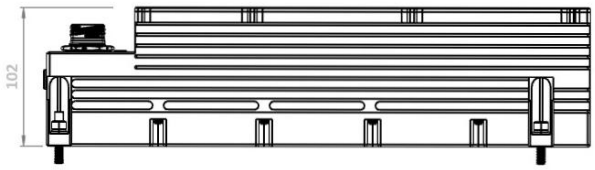
- 4th Gen Xeon Scalable CPU
- Up to 256GB DDR5 memory, up to 16TB NVMe storage
- 2x 10GB Ethernet, 2x 1GB Ethernet
- Sealed, conduction cooled with D38999 connectors
- MIL-STD-810, MIL-STD-461, MIL-STD-1275/704

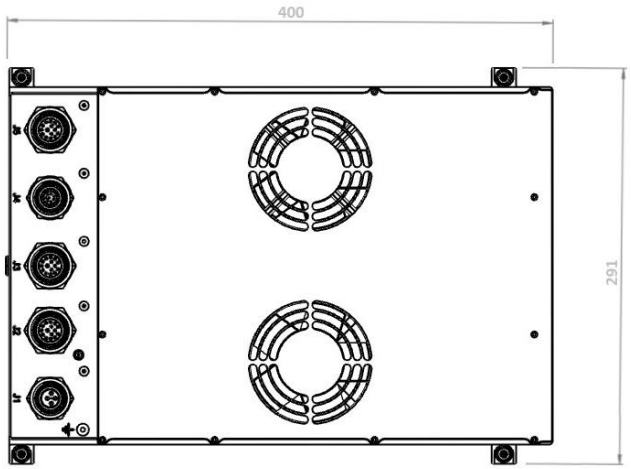
This Rugged Server System combines the latest Intel XEON scalable CPU with high performance I/O in a ruggedized, sealed weatherproof chassis. The system is designed to meet MIL-STD-810H for shock and vibration, MIL-STD-461G for Electromagnetic compatibility, MIL-STD-1275E/704F for power, and is designed to work in extended temperature ranges and salty environments.
It is suitable for ground vehicle, naval and airborne applications.

Specifications

Processor	CPU	4th Gen Xeon Scalable CPU, up to 205W	
	Memory	Up to 256GB DDR5	
	Storage	Up to 16TB via 2x internal U.2 SSDs	
Security	TPM	TPM2.0 with Infineon 9670 controller	
38999 I/O Connectors	Maintenance	1x VGA; 2x USB2.0, 2x RS-422/485 (Optional)	
	Ethernet 1GB	2x 10/100/1000 Mbps	
	Ethernet 10GB	2x 10 GB	
Power Supply	12-36VDC Input (nominal 28VDC), maximum 350W, MIL-STD-1275E/704F compliant		
Environment		Operating	Storage
	Temperature	-20 ~ 50° C	-20 ~ 80° C
	IP Rating	IP67	
	Environmental	MIL-STD-810H	
	EMI/EMC	MIL-STD-461G	
Physical Characteristics	Dimensions (W x H x D)	291mm x 102mm x 400mm	
	Weight	12.5Kg	
Software	OS Support	Win10 64bit and Ubuntu 64bit.	

Dimensions





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MIL-STD-461G Compliance

Fully qualified to the following:

Requirement	CE102	Conducted emissions, power leads, 10 kHz to 10 MHz. Basic Curve
	CS101	Conducted susceptibility, power leads, 30 Hz to 150 kHz. Curve #2
	CS114	Conducted susceptibility, bulk cable injection, 10 kHz to 2 MHz. Curve #3
	CS114	Conducted susceptibility, bulk cable injection, 2 MHz to 200 MHz. Curve #4
	CS115	Conducted susceptibility, bulk cable injection, impulse excitation
	CS116	Conducted susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz to 100 MHz
	CS118	Conducted susceptibility, Electrostatic discharge. Level 4, 15kV
	RE102	Radiated emissions, electric field, 2 MHz to 18 GHz. Ground levels RE102-4
	RS103	Radiated susceptibility, electric field, 2 MHz to 18 GHz. 50V/m

MIL-STD-810H Compliance

Fully qualified to the following:

Requirement	High Temperature Operation	Method 501.7, Procedure II, +50°C
	High Temperature Storage	Method 501.7, Procedure I, +80C
	Low Temperature Operation	Method 502.7, Procedure II, -20°C
	Low Temperature Storage	Method 502.7, Procedure I, -20C
	Immersion	IP67
	Sand and Dust	Method 510.7 Procedure I, 8.9 m/s, 10.6g/m3, max 149µm Method 510.7 Procedure II, 18-29 m/s, 1.1±0.25gr/m3,
	Humidity	Method 507.6- Procedure II aggravated cycles 10 diurnal cycles at 30~60°C @95% RH.
	Salt Fog	Method 509.7, 5% NaCl, 2 cycles of 48hrs (wet/dry).
	Vibration	Method 514.8 category 4, composite wheeled vehicle
	Shock (functional, operational)	Method 516.8, Procedure I, 20G 11ms half sine, 3x per axis

MIL-STD-1275E Compliance

Requirement	Surges and Spikes	Injected and emitted
	Input voltage	Steady state and Injected Ripple
	Starting Disturbances	Initial engagement and Cranking Surges
	Reverse Polarity	

Ordering Information

AVR-500A-C1	Rugged Airborne Server System with Xeon Scalable 5411N (24C, 1.9GHz), 256GB RAM, 7.6TB NVMe
AVR-500A-C2	Rugged Airborne Server System with Xeon Scalable 6438N (32C, 2.0GHz), 128GB RAM, 2x 2TB SSD (RAID1), 4x 4TB SSD (RAID5), 2x RS-422/485
AVR-500A-EL01	Rugged Airborne Server System with Xeon Scalable 6438N (32C, 2.0GHz), 128GB RAM, 2TB SSD, Mellanox 100G Card