

AVR-400R1

Rugged CPU/GPGPU System



Features

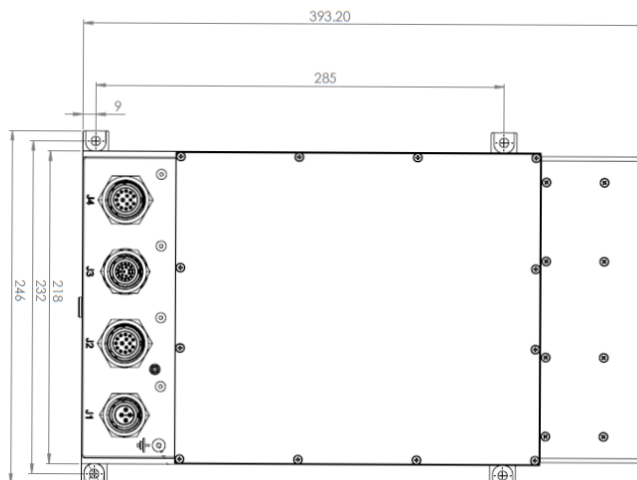
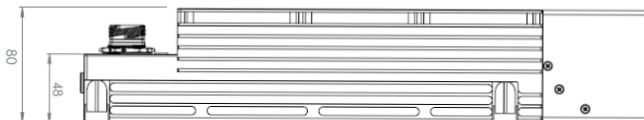
- 11th Gen Xeon-W CPU, with 8 cores, 2.6GHz, 45W
- Up to 64GB DDR4 memory, up to 2TB storage
- Nvidia RTX A2000, 2560 cores, 8GB, 60W
- Operation Temperature: -40°C ~ 60°C
- MIL-STD-810, MIL-STD-461, MIL-STD-1275/704
- Aluminium/Bronze D38999 connectors

The Rugged CPU/GPGPU System combines the latest CPU in COM Express® Type 6 format together with the latest high performance, low power embedded MXM GPU in a ruggedized, sealed weatherproof form factor. 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 work in extended temperature ranges and salty environments.

Specification

Processor	CPU	Xeon W-11865MRE (8C) 45W	
	Memory	64GB DDR4 3200MHz	
	Storage	2TB SSD in mSATA slot	
Graphics	MXM	RTX A2000 with CUDA:2560 Tensor:80 RT:20 cores, 8GB	
38999 I/O Connectors	Video out	1x VGA; 2x RS-170	
	Ethernet	1 x ETH 10/100/1000 Mbps	
	USB	2x USB2.0	
	Serial	1x RS-232, 2x RS-422	
Power Supply	18-36VDC Input (nominal 28VDC), maximum 160W, MIL-STD-1275E/704F compliant		
Environment	Temperature	Operating -40 ~ 60° C	Storage -40 ~ 85° C
	IP Rating	IP67	
	Environmental	MIL-STD-810H	
	EMI/EMC	MIL-STD-461G	
Physical Characteristics	Dimensions (W x H x D)	246mm x 80mm x 393mm (incl fan unit)	
Software	OS Support	Win10 64bit and Ubuntu 64bit.	

Dimensions



Connectors

Note that all connectors are Nickel Aluminium Bronze "B" type.

J1	TVS07RB-13-4P	Power and remote on/off
J2	TVS07RB-15-15S	2x RS-170
J3	TVS07RB-13-35S	Maintenance: VGA and 2x USB2.0
J4	TVS07RB-15-35S	Maintenance: Ethernet , RS-232, 2x RS-422

MIL-STD-461G Compliance

Designed to meet the following:

Requirement	CE101	Conducted emissions, power leads, 30Hz to 10 kHz
	CE102	Conducted emissions, power leads, 10 kHz to 10 MHz
	CS101	Conducted susceptibility, power leads, 30 Hz to 150 kHz
	CS106	Conducted susceptibility, transients, power leads
	CS114	Conducted susceptibility, bulk cable injection, 10 kHz to 200 MHz
	CS115	Conducted susceptibility, bulk cable injection, impulse excitation
	CS116	Conducted susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz to 100 MHz
	CS118	Electrostatic discharge
	RE101	Radiated emissions, magnetic field, 40 Hz to 100 kHz
	RE102	Radiated emissions, electric field, 2 MHz to 18 GHz
	RS101	Radiated susceptibility, magnetic field, 30 Hz to 100 kHz
	RS103	Radiated susceptibility, electric field, 2 MHz to 18 GHz, 50V/m

MIL-STD-810H Compliance

Designed to meet the following:

Requirement	High Temperature Operation	Method 501.7, Procedure II, +60°C
	High Temperature Storage	Method 501.7, Procedure I, +85C
	Low Temperature Operation	Method 502.7, Procedure II, -40°C
	Low Temperature Storage	Method 502.7, Procedure I, -40C
	Immersion	IP67
	Sand and Dust	Method 510.7 Procedure I, 8.9 m/s, 10.6g/m ³ , max 149µm Method 510.7 Procedure II, 18-29 m/s, 1.1±0.25gr/m ³ ,
	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
	Shock (bench handling)	Method 516.8, Procedure VI, unpacked, non-operational

MIL-STD-1275E Compliance

Requirement	Input voltage Surge	Section 5.1.3
	Transient Input Spike	Section 5.1.3

Ordering Information

AVR-400R1-C1	Rugged GPGPU Server System with Xeon W-11865MRE, 64GB RAM, 2TB storage, external fan unit
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