



Our Vision is Your Vision

# SEA-RESAI-XR6 4U

22.5" deep, 8 drive, rear I/O rugged High Performance Computing (HPC) rack mountable server

- Up to eight NVIDIA® Tesla® or Quadro® GPGPUs
- Up to two Intel® Xeon® Scalable processors
- Up to 2TB DDR4 ECC memory
- Up to 120TB of storage and 9 PCIe cards
- MIL-STD: 810G, 901D, 167-1, 1474D, 740-2, 461F
- Manufactured in AS5553 compliant, AS9100D facilities



Engineered to handle massive workloads anywhere, Seatronx's

*EnterpriseSeries™* SEA-RESAI 4U server employs the latest NVIDIA® Tesla® GPUs and Intel® Xeon® Scalable processors

to accelerate compute-heavy mission-critical applications such as Signal Intelligence (SIGINT), cryptography, deep learning, Artificial Intelligence (AI), surveillance, sensor fusion,

visualization, image processing, tracking and big data analytics.

## Tackle Challenging Workloads at the Edge

Powered by the latest NVIDIA Volta, Pascal™ and Turing™ architecture GPUs, the SEA-RESAI 4U harnesses parallel processing

to maximize throughput, boost productivity and push the boundaries of compute-heavy applications at the edge. To optimize performance in a small footprint, it densely packs multiple expansion slots, two Intel® Xeon® Scalable processors, 2TB DDR4 ECC memory and eight disk drives in a 49.5lb, 22.5" deep rugged form-factor.

## Fully Configurable to Your HPC Application

Equipped with numerous PCIe 3.0 slots that accommodate a mix of GPUs, FPGA accelerators and other expansion cards, RES AI accelerates an array of High Performance Computing (HPC) workloads by tailoring to unique performance, speed and storage requirements.

Seatronx is a leading commercial provider of secure sensor and safety-critical processing subsystems.

## Supercomputing Designed for the Field

Built from the ground up to provide edge computing capability previously reserved for the datacenter, field-deployable SEA-RES AI servers incorporate innovative patented technologies and design features to withstand shock, vibration, dust, sand, and temperature extremes.

To ensure uptime, availability and sustained optimal performance in almost any environment, servers feature hot swappable AC power supplies with 2+1 redundancy and are certified to multiple military (MIL-STD) and commercial (IEC) environmental specifications including airborne and structural noise. Compatible with multiple operating systems, applications and software, SEA-RES AI scales supercomputing from the Cloud to the Edge.

## Proven Performance from a Trusted Partner

Seatronx Enterprise Series SEA-RES Servers are trusted worldwide for their high-performance, long life cycles, thermal resiliency, compatibility with industry standards, and SWaP optimization. With over 30 years of technical expertise, Seatronx works closely with customers to design computing solutions that are easy to integrate, affordable and reliable for years to come. We work closely with our manufacturing partners and there AS5553 compliant, AS9100D and ISO9001 facilities maintain quality and compliance to meet customer expectations.



ACQUIRE



DIGITIZE



PROCESS



STORAGE



EXPLOIT



DISSEMINATE

## Modified COTS Expertise

For customized space, environmental, and performance requirements email [info@seatronx.com](mailto:info@seatronx.com)

### Technical Specifications

2 Intel® Xeon® Scalable CPUs with up to 28 cores per processor  
Bronze, Silver, Gold, or Platinum  
Up to 8 double-wide NVIDIA Tesla or Quadro GPU accelerators  
Up to 2TB 2933MHz memory with 12 DIMM slots

### Patented Technologies

Memory stabilization  
Aeroloc baffle system  
System control module for acoustic and remote management

### Management and Operating System

Windows®, Linux®, VMWARE® and other hypervisors  
IPMI v2.0, Redfish option available  
TPM 1.2 or 2.0 support

### Expansion and Modular Maintainability

9 PCIe card options:  
8 PCIe 3.0 x16 GPU slots + 1 PCIe x16 high speed networking slot

### Input/Output Versatility

#### Front Access

Up to 8 removable, hot pluggable, 2.5" SATA/SAS3 drives, U.2 NVME option available  
can configure with up to (4) 15mm or (8) 7mm (SATA) high drives  
1 Power/Reset Switch  
1 CFM Switch (optional)  
1 Power on LED  
1 Blu-Ray or DVD/CD ROM drive (optional)  
2 USB 3.0  
1 Quick Change CMOS battery

#### Rear Access

2 1GBaseT ethernet ports (RJ45) with 1 port shared with IPMI 2.0  
1 Display port with adapter to convert to VGA and 2 USB 2.0 ports

### Power Supply Options

2000W 110 VAC power (2+1 redundancy)  
3200W 220 VAC power (2+1 redundancy)  
MIL-STD 461, 704F, 1399-300B

### Additional Options

Front door filter  
Slide rails  
CAC card reader  
Read/Write switches to prevent accidental rewrite

### MIL-STD / Industrial Specifications

MIL-STD 810G  
Shock: MIL-STD 901D Grade A, IEC 60068-2-27  
EMI/RFI: MIL-STD 461F, CE102 standard  
Vibration: MIL-STD 167-1, MIL-STD 810G, IEC 60068-2-64  
Airborne noise: MIL-STD 1474D  
Structure borne noise: MIL-STD 740-2  
Temperature: IEC 60068-2-2 test Bb, 60068-2-1 test Ab

### Environmental\*

#### Operating

Temperature: 0°C to 50°C  
Extended Temperature: -20°C to 55°C  
Humidity: 5% to 95% (non-condensing)  
Shock: 3 axis, 35g, 25ms  
Vibration: 4.76Grms, 4Hz to 2000 Hz (SSD)  
Altitude: 10,000 ASL

#### Non-Operating

Temperature: -40°C to 80°C  
Humidity: 5% to 95% (non-condensing)  
Altitude: 40,000 ASL  
Conformal Coating: IPC-CC 830 (optional)

### Mechanical

Height: 4U or 7" inches (177mm)  
Width: 17 inches (431.8mm)  
Depth: 22.5 inches (571.5mm)  
Weight (Typical)\*: 49.5lbs (22.5kg)  
dip brazed welded aluminum chassis  
Cooling: Internal fan-cooled (rear vent) front to rear  
19" rackmountable

\* Seatronx designs all products to meet or exceed listed data sheet specifications. Some specifications including I/O profiles, weight, and thermal profiles are configuration dependent. Contact Seatronx for information specific to your desired configuration requirements.