



**Compact and rugged.** The RS1004L21X2 packs twice the computing performance in a 1U rugged server. This compact, powerful solution is critical for successful execution of combat, sonar, ISR, and electronic warfare applications in extreme and unpredictable environments across all domains, including cyber.

The integrated design consolidates system availability, superior cooling, and shock/vibe resistance into a smaller footprint that fits easily into standard rack slots.

**Lives are on the line. Reliability matters.** Warfighters achieve dominance with accurate, real-time information—which requires fail-safe computer hardware that works in any conditions. To ensure seamless accuracy at the tactical edge, we engineer and test our products to meet or exceed strict military standards.

Our unsurpassed thermal performance leverages custom heat-sink solutions and special air management techniques. Likewise, we meticulously assemble unique GPU and networking capabilities with the latest Intel® Xeon® Scalable processors to deliver secure, near-zero latency at the tactical edge.

**Combat-proven solutions you can trust.** Fielding more than 20,000 servers for the U.S. Navy, our solutions have demonstrated unmatched fielded reliability of greater than 99 percent. Key to our consistency is having the full design, development, testing and manufacturing team in house. Using the latest COTS technologies for ease and speed of upgrades and reconfigurations, we deliver customized solutions that meet the unique needs of any program with speed and agility.

**Industry-leading support.** Crystal Group's expert team and global network provide fast, effective product support around the clock and around the globe. With in-house or on-site technical assistance, five-plus-year warranty, and exceptional service, you can depend on Crystal Group as a strategic partner, dedicated to your success.

## FEATURES

- Rugged 1U, 21" rack-mounted dual-node, rear I/O server
- Lightweight aluminum construction – 28 lbs.
- Shared 1500W power supply; operates from 110/220V 50/60Hz AC
- Dense SWaP capability with two dual-socket motherboards per chassis
- 2nd Gen Intel Xeon Scalable processors with up to 110W each
- Four low-profile PCIe x16 slots, plus two SIOM modules with up to eight ports of network connectivity per chassis
- Four USB 3.0 and two VGA
- Full performance tested to +50°C ambient

*A clear advantage.*

## Specifications

### Chassis

Height: 1U, 1.75" (4.45 cm)  
 Width: 17.5" (44.45 cm)  
 Depth: 21" (53.34 cm)  
 Weight: 28 lbs (12.7 kg)

### CPU

Intel® CPU architecture options from Intel embedded long-life roadmap  
 Up to 16 cores per socket (two sockets per node, four total) up to 110W each,  
 2nd Gen Intel Xeon Scalable processors

### Expansion

Two PCIe x16 HHHL low-profile cards per node (four total)  
 One Supermicro SIOM card per node (two total)

### Storage

Four 128Gb SATA DOM

### Memory

16GB to 4TB DDR4 ECC RDIMM/LRDIMM per node (two nodes)

### Power Supply

Single 1500W power supply shared by both nodes  
 Operates from 90-264V AC (50/60Hz)

### Environmental Standards

MIL-STD-810, Operational Temperature: -30°C to +50°C  
 MIL-STD-810, Storage, Method 501, Procedure I/II: -40°C to +85°C  
 MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with conformal coating  
 MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport  
 MIL-STD-810, Shock, Method 516, Procedures I/V: 6g, 11msec functional shock; 20g, 11msec crash hazard shock  
 MIL-STD-810, Vibration, Method 514, Procedure I: 4.63 Grms, 5-2,000Hz, 60 min/axis, 3 axis  
 MIL-STD-167-1A, Vibration, Type 1

### Electromagnetic Compatibility Standards

MIL-STD-461, RE102, CE102 compliant

### Software Compatibility

Accepts Windows 10®, Windows Server, VMware®, or Linux®

### Cooling

Nine high-speed, high-volume fans

### System Board

2x X11DPT-PS dual socket 2nd Gen Intel Xeon Scalable processors



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