



**Field tested, fail-safe and long-life performance in extreme conditions.** As processing performance continues to improve, Crystal Group is dedicated to minimize the SWaP envelope of the RS4105L22. High-end computing performance in a 4U chassis with a depth of 22" (55.9 cm) fits most any rack space.

Crystal Group Rugged Servers provide high-performance computing and high-capacity data storage in a rugged, all-aluminum package able to withstand the roughest terrains and toughest applications. Crystal Group's highly customizable Rugged Servers are used by the U.S. Armed Forces, Foreign Military, Power Distribution, Autonomous Vehicles, Oil & Gas, and others for everything from communications and networking to weapons control, sensor and surveillance, and unmanned aircraft systems. The RS4105L22 provides optimized value for end users in DSP, SIGINT, C4ISR, and radar applications.

**Innovative solutions.** Crystal Group's portfolio of rugged and industrial computing products are engineered and tested to withstand challenging environments, meet and exceed military and industrial standards, and provide the latest COTS technologies and benefits, such as cost, availability, upgradability, and flexibility.

**Dependable services.** When a computing application requires a custom solution, Crystal Group delivers — on time and on budget — with professional services, including product design and development, testing, systems engineering and integration, mechanical and electrical engineering, configuration management, and product lifecycle planning.

**Dedicated support.** Crystal Group's expert staff and global network provide fast and effective product support when and where it is needed, whether in-house or in the field. Count on Crystal Group for fast response times, quick turnarounds, 5+ year warranties, and quality service around the clock and around the globe.

### FEATURES

- **Aluminum construction — 55-66 lbs. (26.3-29.9kg)**
- **Easily mounted on Delrin glides, fixed mount, or Jonathan® rails**
- **Up to 3TB of DDR4 memory**
- **Rugged 4U, rack mounted 22" depth**
- **3000W N+1 AC power supply**
- **Versatility with four modular SSD bays for up to 15 SSDs**
- **Designed for four high powered GPGPUs**
- **Expandable with ten PCIe slots**
- **2nd Generation Intel® Xeon® Scalable processors**

*A clear advantage.*

## Specifications

### Mechanical 4U

Height: 7.0" (17.8 cm)  
 Width: 17.5" (44.45 cm) EIA-310 Rack Compliant  
 Depth: 22" (55.9 cm)  
 Weight: 55-66 lbs. (26.3-29.9 kg)

### CPU

Intel® CPU architecture options from Intel embedded long-life roadmap  
 Dual Socket 2nd Generation Intel® Xeon® Scalable options up to 28 cores each

### Expansion

Option 1: Ten PCIe expansion Slots (5 PCIe X16, 5 PCIe X8)

### External Bay

Five Crystal FORCE expansion bays, up to 15x SSD or other FORCE accessory modules

### Memory

16GB – 3TB DDR4 RDIMM/LRDIMM

### Mounting

Crystal Glides or Jonathan rails

### Power Supply

3000W 120/240VAC 50/60Hz and 180-350VDC, N+1 redundant

### System Board

Supermicro X11DPX-T

### Environmental Standards

MIL-STD-810, Operational Temperature, Method 501, Procedure I/II: -40°C to +55°C<sup>1</sup>  
 MIL-STD-810, Storage, Method 501, Procedure I/II: -40°C to +85°C<sup>1</sup>  
 MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with conformal coat<sup>1</sup>  
 MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport<sup>1</sup>  
 MIL-STD-810, Vibration, Method 514, Procedure I: 3 GRMS, 5-2,000Hz, 60 min/axis<sup>1</sup>  
 MIL-S-901, Grade B<sup>1</sup>

### Electromagnetic Compatibility Standards

AC, FCC compliant<sup>1</sup>  
 AC, MIL-STD-461, RE102, CE102 compliant<sup>1</sup>  
 DC, MIL-STD-461, RE102, CE102 compliant<sup>1</sup>

### Export Compliance

ECCN: 5A992.a  
 Classification is dependent on configuration and is subject to change. Please contact your program manager to receive the classification for your product.

### Cooling

Fifteen high speed, high volume fans, CPU temperature controlled

### Software Compatibility

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



Metromatics

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1 - Designed to meet standard

Certification reports for select products are available on [Crystalrugged.com](http://Crystalrugged.com). Crystal Group designs all products to meet or exceed the specifications listed herein. Due to the numerous models and component combinations, some configurations are still being tested. Please contact your Crystal Group program manager for test data on desired requirements.

