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 RS121S16. High-end computing performance in a 1U chassis with a depth of 16" (40 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 industry, and others for everything from communications and networking to weapons control, sensor and surveillance, and unmanned aircraft systems.

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

- Light weight aluminum construction – 7 to 15 lbs.
- Full processor performance to +55°C
- Rugged 1U, rack mounted 16" depth
- Versatility with two or three removable 2.5" sleds
- Expandable with PCIe x8 slot
- Intel® Xeon® D series processors

A clear advantage.

Specifications

Mechanical 1U

Height:	1.75" (4.45 cm)
Width:	16.5" (41.91cm)
Depth:	16" (40.64 cm)
Weight:	7-15 lbs. (3.18-6.80 kg)

CPU

Intel® CPU architecture options from Intel embedded long-life roadmap

Intel® Xeon® D-1500 series processor

Expansion

Two full height half-length PCIe x8 slots

Memory

Up to 128 GB DDR4

External Bay

Option 1: Up to three removable SATA SSDs or HDDs, 7mm height

Option 2: Up to two removable SAS SSDs or HDDs, up to 15mm height

Option 3: 1x M.2 SATA/PCIe 3.0x4, non-removable (can exist with any other option)

Option 4: Optical drive

Mounting

Option 1: Mounted on Crystal glide rails

Option 2: Fixed mount, front and rear

Environmental Standards*

MIL-STD-810, Operational Temperature, Method 501/502 Procedure I/II: -30°C to +50°C[1]

MIL-STD-810, Storage, Method 501, Procedure I/II: -55°C to +85°C[1]

MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with humidity kit[1]

MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport[1]

MIL-STD-810, Vibration, Method 514, Procedure I: 2 GRMS, 5-2000Hz, 60 min/axis with solid state drives

MIL-STD-810, Shock, Method 516, Procedures I/V: 20g, 11msec–functional shock; 40g, 11msec crash hazard shock[1]

MIL-S-901, Grade B[1]

MIL-STD-167-1[1]

Electromagnetic Compatibility Standards

AC, FCC Compliant

AC, RE102, CE102 compliant

Cooling

Thermally controlled high-volume fans

Software Compatibility

Supports Windows 10® or Linux®

System Board

Xeon D-1587, up to 128GB DDR4 DIMM, 6x SATA 3, 2x 10GBE, VGA graphics, IPMI, 2x USB 3.0 rear, 1x USB 2.0 front

Power Supply

460W 120/240VAC 50/60Hz w/PFC, 115VAC 400Hz

1 - Designed to meet standard; Testing in-process

AS9100D CERTIFIED **ISO 9001**