CRYSTAL SPECS

Crystal Group RS255 Rugged 2U Server

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 RS255. High-end computing performance in a 2U chassis with a depth of 20" (50.8 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 to withstand the roughest terrains and toughest applications. We provide broad range of military and industrial programs with integrated solutions 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, or exceed military and industrial standards, and provide the latest COTS technologies to best manage cost, availability, upgradability, and flexibility.

Dependable services. When a computing application requires a custom solution, we deliver with a full range of vertically-integrated services, including product design and development, testing, systems engineering and integration, mechanical and electrical engineering, configuration management, and product lifecycle planning.

Dedicated support. Our expert staff and global network provide fast and effective product support when and where it is needed. 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 – 30-35 lbs.
- Easily mounted – Delrin glides, fixed mount, or Jonathan® rails
- Up to 512 GB of memory
- Rugged 2U, rack mounted 20" depth
- Five removable 3.5" HDDs or ten removable 2.5" SSDs
- Expandable with five low profile slots
- Intel® Xeon® processors

A clear advantage.

Crystal Group RS255 Rugged 2U Server

Specifications

Mechanical 2U
Height: 3.5" (8.89 cm)
Width: 17.5" (44.45 cm); accepts Crystal Slides and Jonathan Rails; EIA-310 Rack Compliant
Depth: 20" (50.8 cm)
Weight: 30–35 lbs. (13.6–15.9 kg) [content dependent]

CPU Intel® CPU architecture options from Intel embedded long-life roadmap
Intel® Broadwell Xeon® processors
Up to 18 core options per socket (dependent on motherboard)

Expansion
Five low profile slots; combination is configuration dependent

External Bay
Option 1: Five removable SATA or SAS 2.5" or 3.5" HDD
Option 2: Ten 2.5" SATA or SAS HDDs
Option 3: Can be combined with HDD option: One CD/DVD/BD (R/W)

Memory
16-512 GB DDR4 (motherboard dependent)

Mounting
Option 1: Mounted on Delrin glides
Option 2: Fixed mount, front and rear
Option 3: Jonathan rails

Power Supply
Option 1: 600W 120/240VAC W/PFC, 115VAC 400Hz
Option 2: 1200W 120/240VAC W/PFC, 115VAC 400Hz
Option 3: 1005W 18-36VDC

Environmental Standards
MIL-STD-810, Operational Temperature, Method 501/502 Procedure I/II: -15°C to +50°C (-40°C to +71°C with select processors)[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: 4.63 GRMS, 5-2,000Hz, 60 min/axis with solid state drives + vibration kits[1]
MIL-STD-810, Shock, Method 516, Procedures I/V: 20g, 11msec–functional shock; 40g, 11msec crash hazard shock[1]
MIL-S-901, Grade A: With solid state drives + shock kits[1]
MIL-S-901, Grade B[1]

Electromagnetic Compatibility Standards
Some standards may require an internal kit
AC, FCC Compliant[1]
AC, MIL-STD-461, RE102, CE102 compliant[2]
DC, MIL-STD-461, RE102, CE102 compliant[2]
RTCA DO-160 Section 21, Category M[2]

Cooling
Six high speed, high volume fans, CPU temperature controlled

Software Compatibility
Supports Windows 10®, Windows Server 2019®, VMware®, or Linux®

1 - Test report available
2 - Designed to meet standard

AS9100D CERTIFIED ISO 9001

info@crystalrugged.com | 800.378.1636 | crystalrugged.com