CRYSTAL SPECS

RS363SF
Rugged Crystal Servers

Field tested, failsafe and long life performance in extreme conditions. As processing performance continues to improve, Crystal Group is dedicated to minimize the SWaP envelope of the RS363SF. High-end computing performance in a 3U chassis with a depth under 13" (33.02 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.

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 – 30 -35 lbs.
- Easily mounted – Delrin glides, fixed mount, or Jonathan® rails
- Up to 512 GB of memory
- Rugged 3U, rack mounted 13" depth
- Versatility with three (3) removable 3.5" HDD or six (6) 2.5" SATA or SAS bays
- Expandable with six (6) slots
- Leading edge Intel® Sandy Bridge, Ivy Bridge, Haswell or Broadwell CPU options

A clear advantage.

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Specifications

Mechanical 3U
Height: 5.25" (13.34 cm)
Width: 17.5" (44.45 cm) EIA-310 rack compliant
Depth: 13" (33.02 cm)
Weight: 30-35 lbs. (13.6-15.9 kg)

CPU Intel® CPU architecture options from Intel embedded long-life roadmap
Option 1: Sandy Bridge or Ivy Bridge LGA1155, X9SAE-V
Option 2: Haswell or Broadwell LGA2011, X10SRL-F, X10DRL-I
Dual, Quad, Hexa, Deca or Dodeca Core options (motherboard dependent)

Expansion
Six (6) full-height slots; combination is configuration dependent

External Bay
Option 1: Three (3) removable SATA or SAS 2.5" or 3.5" HDD
Option 2: Four (4) 2.5" SATA or SAS HDDs
Option 3: (can be combined with HDD option): One (1) CD/DVD/BD (R/W)

Memory
16-512 GB DDR3 or 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 50/60Hz w/PFC, 115VAC 400Hz
Option 2: 585W 18-36VDC

System Board
Option 1: X9SAE-V, Single LGA1155, Xeon®, i3/5/7, ATX, 2LAN1000, VGA, 2XHDMI, AUDIO, 1 PCI, 2 PCI-E X1, 1 PCI-E X4, 1 PCI-E X8, 2 PCI-E X16, SATAX4, SATA3X2
Option 2: X10DRL-I, Dual LGA2011 R3 Xeon®, ATX, 2LAN1000, VGA, 5 PCI-E X8, 1 PCI-E X16, IPMI, IPKVM, SATA3X10
Option 3: X10SRL-F, Single LGA2011 R3 Xeon®, ATX, 2LAN1000, VGA, 2 PCI-E X16, 5 PCI-E X8, IPMI, IPKVM, SATA3X10

Environmental Standards
MIL-STD-810, Operational Temperature, Method 501, Procedure I/II: -15°C to +50°C, capable of -40°C to 71°C with select processors[2]
MIL-STD-810, Storage, Method 501, Procedure I/II: -55°C to +85°C[2]
MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with humidity kit[2]
MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport[2]
MIL-STD-810, Vibration, Method 514, Procedure I: 4.63 GRMS, 5-2,000Hz, 60 min/axis with solid state drives + vibration kits[2]
MIL-STD-810, Shock, Method 516, Procedures I/V: 20g, 11msec--functional shock; 40g, 11msec crash hazard shock[2]
MIL-S-901, Grade B[2]
MIL-S-901, Grade A: With solid state drives + shock kits[2]

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

Export Compliance
ECCN: 5A992
Classification is dependent on configuration and is subject to change. Please contact your Business Development Manager to receive the classification for your product.

Cooling
High speed, high volume fans (4) CPU temperature controlled

Software Compatibility
Accepts Windows 10®, Windows Server 2012®, Windows Server 2016®, VMware®, or Linux®

Metromatics

For further information or pricing, please contact Metromatics

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2 - Designed to meet standard

Certification reports for select products are available on Crystalrugged.com. Crystal Group designs all servers to meet or exceed the specifications listed herein. Due to the sheer number of models and combinations of components (memory, CPU, peripheral cards, hard drives), it is not practical to test every combination of servers offered. Please ask your Crystal Business Development Manager for data on qualification testing for configurations similar to the desired configuration for your application.

AS9100C:2009 and ISO 9001:2008 Certified QMS

intel Technology Provider Platinum 2017

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Custom solutions. Superior performance.

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