Crystal Group RS1300L21: 1U GPU server

Transform the tactical edge with real-time processing

The Crystal Group RS1300L21 server provides enhanced storage and CPU options based on specific application needs. With two high core count Intel® 4th Generation Xeon® Scalable processors (205W each), dual slot 350W GPU, and dual 200GbE network ports, the RS1300L21 provides high compute in a 1U package.

This resource-saving architecture boasts up to 4TB of DDR5 ECC RDIMM, delivering the highest performance available for compute- and memory-intensive workloads while lowering power consumption.

Use cases

- Battlespace management and visualization
- C4/ISR processing
- High-density computing in air, on land or at sea
- Sensor fusion for pinpoint situational awareness
- Cryptographic engines
- Inference at scale at the tactical edge
- Security applications requiring tamper resistance and instant data destruction
- GPU server

Tested to MIL-STD-810

Humidity | Salt Fog | Shock | Electromagnetic Compatibility | Vibration | Sand Dust | Fungus

Crystal Group RS1300L21 technical specifications

Mechanical	**Height:** 1.75" (4.45 cm) **Width:** 16.9" (44.5 cm) **Depth:** 21" (53.3 cm) **Weight:** 23–26 lbs (10.4-11.8 kg)
Mounting	Glides, fixed mount (front and rear), or Jonathan rails
Power Supply	1800WAC, 50/60 or 400Hz
CPU Architecture	4th Generation Intel Xeon Scalable or AMD EPYC 9004 series processors
	CPU power: up to 205W per socket
Memory	16GB–4TB DDR5 ECC RDIMM (motherboard dependent)
Expansion	Dual width GPU and one full height PCIe expansion slot
Software Compatibility	Windows 11, Windows 10, Windows Server, VMware, Linux
Environmental testing standards	
MIL-STD-810: Environmental Engineering Considerations and Laboratory Tests	**Method 500, Altitude**: 12,500 ft. operation, 40,000 ft. transport [2] **Method 501, Operational Temperature, high:** Procedure II: +55°C, two-hour dwell, four cycles [1] (GPU dependent) **Method 502, Operational Temperature, low:** Procedure II: -40°C, two-hour dwell, four cycles [1] **Method 503, Thermal Shock:** Procedure II: 10 cycles, -40°C to +55°C, 15-min dwell, <1-min transfer time [2] **Method 507, Humidity**: Procedure II: 240 hours *with optional conformal coating kit* [1] **Method 508, Fungus**: 28 days, mixed spore, 30°C 95% RH [2] **Method 509, Salt fog**: 48-hour test [2] **Method 510, Sand-Dust**: Procedure I: Blasting dust, 12 hours [2] **Method 513, Acceleration**: Procedure II: 9g [2] **Method 514, Vibration:** Procedure I: 4.7G, 5–2,000Hz, 60 min/axis, 3 axis [1] **Method 516, Shock**: Procedures I & V: 40G, 11ms, 18 pulses, 3/axis both directions [1]
MIL-STD-1474E	**Acoustic Noise**, Requirement S, Grade A3 [2]
MIL-STD-167-1A	**Ship Vibration**, Type 1 [1]
MIL-S-901E	**Shipboard Shock**, Class II, A/B [2]
Electromagnetic compatibility standards	
MIL-STD-461	**EMI/EMC,** RE102, CE102; surface ship, below deck, and ground [1]
RTCA/DO-160	**Aircraft and airborne equipment,** Category M [2]

In-house test reports provided for baseline units; customer-specific test options available upon request.

1: Test report available

2: Testing in progress

AS9100D CERTIFIED ISO 9001

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DOC-00878 REV A 10/23