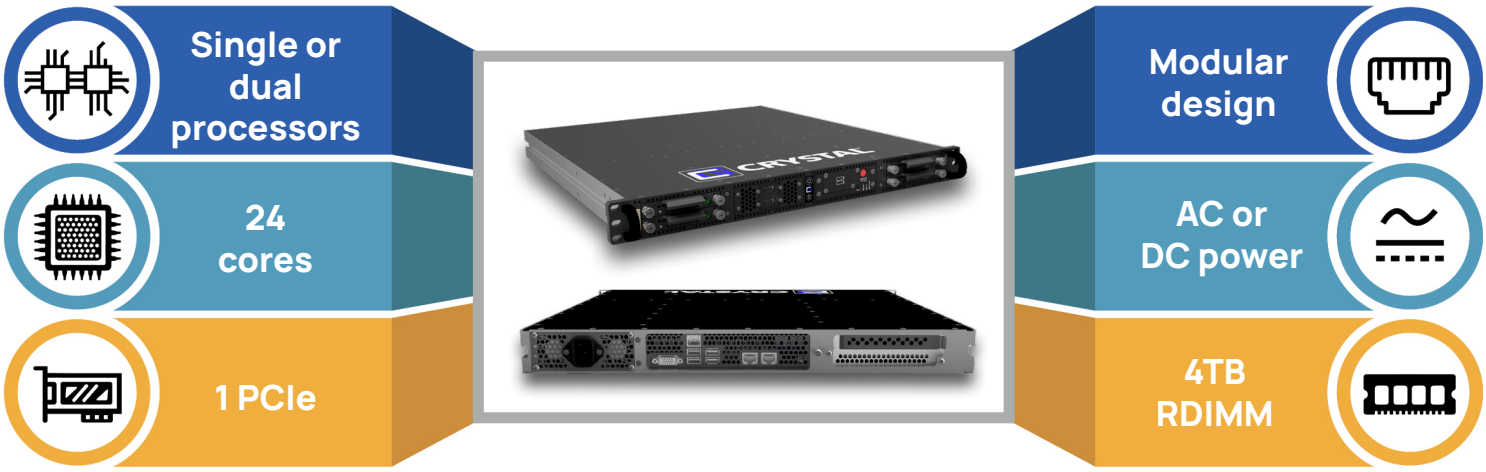
Crystal Group FG2 1100 Series: 1U servers



Transform the tactical edge with real-time processing

The Crystal Group FG2 1100 Series servers provide enhanced storage and CPU options based on specific application needs.

Intel's® 3rd Gen Xeon® Scalable processors have built-in artificial intelligence (AI) acceleration with Intel® Deep Learning Boost, advanced encryption standard (AES), total memory encryption, software guard extensions (SGX), support a single- or dual-socket P+ FG2 motherboard, and increase system memory bandwidth with up to eight 3200MHz DDR4 channels.

The Epyc 7003 series platform with AMD 3D V-Cache™ features up to 24 cores, 48 threads and 160 PCIe Gen4 lanes in a dual-socket board. This resource-saving architecture boasts up to 4TB of ECC DDR4 RAM, delivering the highest performance available for compute- and memory-intensive workloads while lowering power consumption.

This NVIDIA-Certified System is validated for optimal performance, manageability, security and scalability.

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 FG2 1100 Series technical specifications

Mechanical	**Height:** 1.75" (4.45 cm) **Width:** 16.9" (44.5 cm) **Depth:** 19" (48.3 cm) or 22" (55.9 cm) **Weight:** 23–26 lbs (10.4-11.8 kg) or 26–29 lbs (11.8-13.2 kg)
Mounting	Glides, fixed mount (front and rear), or Jonathan rails
Power Supply	800WAC, 50/60 or 400Hz, 505W 18–36VDC, 1+1 600W DC
CPU Architecture	Gen3 Intel Xeon Scalable or AMD EPYC 7003 series processors
	CPU Power: up to 165W per socket
Memory	16GB–4TB DDR4 ECC RDIMM/LRDIMM (motherboard dependent)
Expansion	One low-profile or full-height PCIe slot (motherboard dependent)
External Bays	**Option 1:** Up to four bays populated with FORCE module accessories **Option 2:** Optical drive with up to two bays populated with FORCE module accessories
Software Compatibility	Windows 10, Windows Server, VMware, Linux, RedHat
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] **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]

Different options for different needs

The FG2 product family also includes the 2600 2U Series and 3700 3U Series servers to accommodate different edge computing needs. Contact us to determine the best FG2 solution to achieve your edge computing and AI objectives.

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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