



Field tested, fail-safe and long-life performance in extreme conditions. Feature-rich Crystal Group embedded computer systems are powerful, compact, and rugged. Easily configurable to meet specific customer requirements, the embedded product line boasts advanced thermal management and carbon fiber chassis field tested to withstand shock and vibration, extended temperature ranges, harsh elements, and extreme environments. Our embedded computer systems follow the Intel® roadmap to ensure access to the latest, most powerful Intel chipsets and processors.

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 to best manage cost, availability, scalability and flexibility.

Dependable services. When a computing application requires a custom solution, Crystal Group delivers with vertically-integrated services, including product design and development, testing, systems engineering and integration, mechanical and electrical engineering, configuration management, and product life-cycle 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 prompt response times, quick turnarounds, 5 year warranty, and quality service around the clock and around the globe.

FEATURES

- Compact construction – 6"H x 15.4" W x 9.6"D footprint
- Less than 12 lbs
- Up to 16 Intel Xeon® D-21xx processor cores
- Up to three NVMe SSDs or six SATA SSDs
- 18-36 or 36-72 VDC power input
- Up to 256GB DDR4 memory
- Bulkhead, tray, or floor mounting options
- Expandable with multiple PCIe, mPCIe, and M.2 interfaces
- Four 1Gb Ethernet, two 10Gb Ethernet, two SFP+

A clear advantage.

Specifications

Mechanical

Height: 6" (15.24 cm)
Width: 15.4" (39.11 cm)
Depth: 9.6" (24.38 cm) excluding connectors
Weight: 10.3-12.0 lbs. (4.7-5.4kg)
Power: 100-150W with select configurations; CPU dependent

Expansion

Two PCIe 3.0 full-height, half-length expansion slots
One mini-PCIe
One M.2 M-key 2280
One M.2 B-key 3042

External Bay

Standard: Six removable 7mm SATA 2.5" SSDs
Optional: Three removable 15mm NVME 2.5" SSDs

Cooling

Air cooled via three high-durability 92mm chassis fans
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Mounting

Tray, bulkhead, or floor mounted with optional mounting kits
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Software Compatibility

Windows® 10, Server 2019®, RHEL® 6.8/7.1/7.2, Ubuntu® 18/20, or CentOS® 7.1

Environmental Standards

Operational temperature: -40°C to +60°C ¹
Storage: -40°C to +85°C ¹
Humidity: 240 hours with humidity kit ¹
Altitude: 12,500ft operation, 40,000ft transport ¹
Vibration: 5.5G, 5-2,000Hz, 60 min/axis, 3 axis ¹

Electromagnetic Compatibility Standards

Some standards may require an internal kit
MIL-STD-461, CE102, RE102 ¹

Power Supply

200W 18-36 VDC
350W 36-72 VDC

System Board

Option 1: X11SDV-4C-TP8F
Option 2: X11SDV-8C-TP8F
Option 3: X11SDV-12C-TP8F
Option 4: X11SDV-16C-TP8F

Configurable I/O

NVIDIA RTX™ A2000 GPU
CAN bus FD
Intel Movidius™ Myriad™ X AI module
WiFi / LTE / GPS
802.3af PoE



1 - Testing in progress

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