



Field tested, fail-safe and long-life performance in extreme conditions. Feature rich Crystal Group Embedded Computer Systems are powerful, compact, and rugged. Completely and easily configurable, the Embedded product line boasts advanced thermal management and a carbon fiber chassis, are field-tested to withstand shock and vibration, extended temperature ranges, harsh elements and harsh environments. Crystal Group Embedded Computer Systems follow the Intel® Roadmap to ensure access to the latest, 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 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

- Compact construction - 4.5 lbs. maximum weight with expansion
- Versatility with two 2.5" SSDs, non-removable
- DC power solution with optional AC supply brick available
- Up to 16 TB of internal storage
- Expandable with one PCIe x16 low profile slot
- Wide range input power ideal for UAV/UGV applications
- Power efficient Intel® Xeon®D and i3/i7 CPU options

A clear advantage.

Specifications

Mechanical

Rack or panel mount

Height: 3.13" (7.95 cm)

Width: 10.76" (27.33 cm)

Depth: 8.63" (21.9 cm)

Weight: Less than 4.5 lbs. (2.04 kg) with graphics card

CPU

Xeon® D-1528, Core i3/i7

Expansion

One PCIe X16 low profile

Drives & I/O

Up to two 2.5" SSD and one M.2 NVMe SSD

Memory

i3/i7 up to 32GB DDR4, Xeon D-1528 up to 128GB ECC DDR4

Cooling

Two high speed fans, thermostatically controlled

Environmental Standards

MIL-STD-810, Operational Temperature: -20°C to +55 with rotational HDD, -40°C to +55°C w/ solid state HDD¹

MIL-STD-810, Storage, Method 501, Procedure I/II: -55°C to +85°C¹

MIL-STD-810, Vibration, Method 514, Procedure I: 5.5G, 10-2,000Hz, 60 min/axis, 3 axes¹

MIL-STD-810, Shock, Method 516, Procedure I/V: 20 G¹

MIL-S-901, Grade A: With solid state drives + shock kits²

Electromagnetic Compatibility Standards

Some standards may require an internal kit

Testing with solid state drives

AC, MIL-STD-461, RE102, CE102 compliant²

DC, MIL-STD-461, RE102, CE102 compliant¹

Emissions: Radiated FCC Part 15. 109, Class A; conducted FCC Part 15. 107, Class A

Connections

Power: Mini-con-x 3pin shell size 3

Power Supply

Option 1: 150W, 18-36VDC

Option 2: 120/240 VAC with external power brick (rugged available)

1 - Test report available

2 - Designed to meet standard

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