CRYSTAL SPECS

RE0813
Rugged Embedded Computer

Field tested, failsafe 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 an all-aluminum 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 – 1.7" x 11" x 16.5" footprint
- Panel or rack mounting options
- Power efficient Intel Core i3® and Intel Core i7® options
- Up to three (3) SSD hard drives
- Billet construction from milled and strain hardened 6061T651 structural aircraft aluminum
- Redundant, extended temperature internal cooling fans

A clear advantage.

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Specifications

Mechanical rack or panel mount
Height: 1.75" (4.4 cm) max
Width: 16.5" (41.9 cm)
Depth: 11" (27.9 cm) excluding connectors
Weight: 7.52 lbs. (3.4 kg)
Power: 55-80W with select configurations, CPU dependent

Expansion
One PCIe X16 low profile

Internal Bay
One, two, or three SATA 2.5" SSD (not externally removable)

Cooling
Extended temperature range with forced convection (fan included), requires 1.5" clearance front and rear for full thermal performance

Mounting
Option 1: Panel mounting via ears on base
Option 2: 19" rack mount kit

Power Supply
Option 1: 90-250 VAC 50/60 Hz with locking power cord
Option 2: 18-36 VDC
Option 3: 48 VDC
Option 4: 125 VDC

System Board (Note, these features are at the board level and may not all be available in the standard configuration)
Option 1: X9SPV-LN4F-3LE, FCBGA1023, i7-3555LE CPU, 2-16 GB ECC DDR3, 4-USB 2.0, 4-GBLAN, On-board SATA2 & SATA3
Option 2: X9SPV-F-3217UE, FCBGA1023, i3- 3217UE CPU, 2-16 GB ECC DDR3, 2-USB 2.0, 2-GBLAN, On-board SATA2 & SATA3
Option 3: X9SPV-M4, FCBGA1023, i7-3555LE CPU, 2-16 GB ECC DDR3, 2-USB 3.0, 2-USB 2.0, 4-GBLAN, On-board SATA2 & SATA3
Option 4: X9SPV-M4-3UE, FCBGA1023, i7-3517UE CPU, 2-16 GB ECC DDR3, 2-USB 3.0, 2-USB 2.0, 4-GBLAN, On-board SATA2 & SATA3
Option 5: X9SPV-LN4F-3QE, FCBGA1023, i7-3612QE CPU 2-16 GB ECC DDR3, 2-USB 2.0, 4-GBLAN, On-board SATA2 & SATA3
Option 6: X9SPV-F-3610ME, FCBGA1023, i5-3610ME CPU, 2-16 GB ECC DDR3, 2-USB 2.0, 2-GBLAN, On-board SATA2 & SATA3
Option 7: X9SPV-M4-3QE, FCBGA1023, i7-3612QE CPU, 2-16 GB ECC DDR3, 2-USB 3.0, 2-USB 2.0, 4-GBLAN, On-board SATA2 & SATA3

Software Compatibility
Windows 7®, Windows 8®, RHEL 5/6®, or VMWARE®

Environmental Standards
MIL-STD-810, Operational Temperature: -40°C to +70°C, +85°C with select configurations[1]
MIL-STD-810, Storage, Method 501, Procedure I/II: -40°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: 5.5G, 10-2,000Hz, 60 min/axis, 3 axes[2]
MIL-STD-810, Shock, Method 516, Procedure I/V: 20 G, 11ms[2]

Electromagnetic Compatibility Standards
IEC 61850-3[2]
IEEE-1613[2]
Emissions: FCC Class A[2]
Testing with solid state drives

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

1 - Test report available
2 - Designed to meet standard

Certification reports for select products are available on Crystalrugged.com. Crystal Group designs all embedded computers to meet or exceed the specifications listed herein. Due to the numerous models and component combinations, some configurations are still being tested. Please contact your Crystal Business Development Manager for test data on desired requirements.

intel Technology Provider Platinum 2017

AS9100C:2009 and ISO 9001:2008 Certified QMS

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Custom solutions. Superior performance.

Contact Crystal Group:
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