



CRS378r Rugged 3U Server



Rugged Series Structural Features

All Aluminum Construction

- 6061T-651 strain hardened structural aircraft aluminum
- 0.187 to 0.500" thk. Aluminum cross-sections, machined
- MIL-DTL-81706, Type II, Class 3, Clear Chem Film protection

Built to Survive Shock and Vibe

- Multiple attachment points on motherboard and CPU heatsink stabilize PWB
- All fasteners and connectors retained with locking mechanisms
- Cabling dressed and secured to prevent chafing
- Removable HDD, shock isolated



Key Features

- Rugged 3U in a 19" Rack or transit case EIA 3U Form factor, 20.125" Depth
- Light weight, 40-46 lbs depending on content
- Socket 1366 (Intel Nehalem-EP & Westmere-EX) CPUs
- Seven full height expansion slots, type is motherboard dependent, all 3/4 length
- Optional rear Mil-Circ connectors available (Increases depth 4")
- Extended temperature range, -15C to +55C, -40C optional SSHDD; +71°C option with higher temp CPU
- Kits available for MIL-STD-810F Vibration, MIL-STD-810F Humidity, MIL-STD-810F Shock, MIL-S-901D Shock, MIL-STD-167-1 Vibration, MIL-STD-461E EMC
- Configuration Management available upon request, designed for long-life thru Intel® roadmap partner
- Front mounted, fixed, Delrin glides or Jonathan rails

Superior Cooling and EMI Performance

Cooling

- High speed, high volume fans offer Maximum airflow and are designed for long life
- Custom cabling reduces internal pressure drop to increase airflow
- Conduction and convection cooling techniques optimized for each CPU design

EMI/EMC

- Internal compartments segregated to isolate EMI emissions
- Finish applied maintains superior EMI/EMC Characteristics throughout life of the unit.
- Superior grounding paths



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Military Standards (*designed to or tested to)

Operational Temperature, MIL-STD-810F, Method 501.5, Procedure I/II
Storage, MIL-STD-810F, Method 501.5, Procedure I/II
Humidity, MIL-STD-810F, Method 507.4
Altitude, MIL-STD-810F, Method 500.4
Vibration, MIL-STD-810F, Method 514.5, Procedure I
MIL-S-901D, Grade B, Class 2, Type B

-15°C to +55°C, +71°C option with higher temp CPU
-40°C with solid state drive
-55°C to 85°C
48 Hour, 95% RH 40-65C— w/humidity kit
12,500ft operation, 40,000ft transport
4.43Grms, 5-500Hz, 75 min/axis— w/vibe kit (and SSHDD)
Grade A with solid state drives + vibe kits

Mechanical (3U)

Height 5.25" (13.34cm)
Width 17.75" (45.1cm)
Depth 20.125" (51.12cm); (24.125" [61.28cm] with Mil-Circ I/O)
Weight 40-46 lbs (18.1-21 kg) (excludes vibe kit mods)

CPU

Intel® CPU Architecture options from Intel embedded long-life roadmap
Nehalem-EP & Westmere-EX
dual Dual Core, dual Quad Core or dual Hexa Core options

Expansion Slots (7)

Option 1 Seven (7) full height slots; Configurations are motherboard dependent

External Bays (8)

Option 1 (std) Eight (8) removable SATA or SAS 2.5" or 3.5" HDD
Option 2 Sixteen (16) 2.5" SATA or SAS HDDs
Option 3 (can be combined with HDD option) One (1) CD/DVD (R/W) or Blu-ray

Cooling

Option 1 (std) High speed, high volume fans (5 + 2 PS)

Mounting Options

Option 1(std) Mounted on Delrin glides
Option 2 Fixed mount, front and rear
Option 3 Jonathan rails

Power Supply Options

Option 1 (std) 120/240VAC w/PFC 600W
Option 2 120/240VAC 1+1 W/PFC

System Board

Option 1 X8DTL-3F, Socket 1366, 2-96 GB ECC Reg. DDR3, PS/2 KB/M, DB9 Serial, VGA, 2-USB, 2-GBLAN, On-board SAS, IPMI w/ KVM over IP

* Cheetah RAID Storage designs all servers to meet or exceed the specifications listed herein. Due to the sheer number of models and combinations of components (memory, CPU, peripheral cards, hard drives), it is not practical to test every combination of servers offered. Please ask your Cheetah RAID Sales rep. for data on qualification testing for configurations similar to the desired configuration for your application.

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