

2U CRS High Performance Storage Server

Overview

Cheetah RAID Storage manufactures highly integrated 2U storage server products for Highest IOPs for the Hottest Data in the Data Center, commercial and military applications. The 2U product line can hold 18 or 24- 2.5" SSDs and advanced motherboards capable of supporting up to 11 Enterprise HIGH-Performance PCIE SSDs . Cheetah RAID Storage Servers with high end PCIe storage-class memory products from major manufactures solve the challenges of data-intensive enterprise applications with the highest performance available, and ensures high performance over the life of the drive. 2U Storage Server comes in two versions 24 drive and 2+16 drive enclosure.



Figure 1: Front panel – maximum front removable storage solution.

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System features:

1. General Mechanicals

- 1.1. 2U height
- 1.2. 19" rack mount
- 1.3. Dimensions & Weight 28" (D) x 19" (W) x 3.45" (H). 27 lbs.
- 1.4. Removable front filtered bezel
- 1.5. Front bezel to support the following:
 - 1.5.1.standard alarm LED board at the front of the enclosure with light pipes to bring the LEDS to the front of the bezel
- 1.6. Easy slide rack slides

2. Motherboard

- 2.1. Main supported Motherboard: Support two Motherboard designs with the dimensions of 15.2"x13.2"(38.6cmx33.5cm)
 2.1.1 Dual socket R (LGA 2011) supports Intel[®] Xeon[®] processor E5-2600 and E5-2600 v2 family[†]
 - 2.1.2 Intel[®] C602 chipset; QPI up to 8.0GT/
 - 2.1.3 Up to 1TB ECC DDR3, up to 1866MHz; 16x DIMM sockets
 - 2.1.4 Intel[®] i350 Dual port GbE LAN
 - 2.1.5. 10 USB 2.0 with 4 on rear panel, 2 on front panel, 2 internal headers and 2 Type A internal

2.1.6 24 2.5" removable SATA/SAS HDD or SSD carriers

3. Power Subsystem

- 3.1. Power Supplies: dual 1+1 redundant 750+W 12V supplies
- 3.2. 110-277V Universal power input, 47-63 Hz

4. Cooling Subsystem

- 4.1. Internal fan tray with hot-swap fans
 - 4.1.1.Optional cold start kit for temperatures -20 to 5C
- 4.2. Fans include tachometer output and temperature speed control interface with the on-board fan headers and IPMI system monitor of the Motherboard.

5. Maximum Configuration Storage Subsystem



For PCIE expansion



PCIE Storage Server with 11 Gen 3 slots

5.1. 18 or 24 2.5" front removable drives capacity of Supporting HDD or SSD 5.2. SATA/SAS expander backplane minimally impacts air flow of the system

6. Regulatory Compliance

- 6.1. The server is required to conform to the following standards. Section 6.2 describes the standards that tested by Cheetah RAID. Section 6.3 describes the standards that may be tested at a later date.
- 6.2. Tested standards:
 - 6.2.1.FCC Verified to comply with Part 15 of the FCC Rules, Class A
 - 6.2.2.Canada ICES-003, issue 4, Class A
 - 6.2.3.UL/IEC 60950-1
 - 6.2.4.CSA C22.2 No. 60950-1

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- 6.2.5.IEC 60950-1 (CB Certificate and CB Test Report)
- 6.2.6.CE Mark (EN55022 Class A, EN60950-1, EN55024, EN61000-3-2, EN61000-3-3)
- 6.2.7.CISPR 22, Class A
- 6.3. Compliance tests the system is designed to meet but tested at a later date unless included with any section 6.2 test reports
 - 6.3.1.NOM-019
 - 6.3.2.Argentina IEC60950-1
 - 6.3.3.Japan VCCI, Class A
 - 6.3.4. Australia/New Zealand AS/NZS CISPR 22, Class A
 - 6.3.5.China CCC (GB4943), GB9254 Class A, GB17625.1
 - 6.3.6.Taiwan BSMI CNS13438, Class A; CNS14336-1
 - 6.3.7.Korea KN22, Class A; KN24
 - 6.3.8.Russia/GOST ME01, IEC-60950-1, GOST R 51318.22, GOST R 51318.24, GOST R 51317.3.2, GOST R 51317.3.3
 - 6.3.9.TUV-GS (EN60950-1 / IEC60950-1, EK1-ITB2000)

7. Environmental Compliance

- 7.1. Air temperature:
 - 7.1.1.Server on: 5 C to 40 C (41.0 F to 104 F); altitude: 0 to 915 m (3,000 ft) for 60W to 95W processor models. Optional cold start kit for -20 to 5C start-up.
 - 7.1.2.Server on: 10 C to 35 C (50.0 F to 95 F); altitude: 0 to 915 m (3,000 ft) for 115W to 135W processor models.
 - 7.1.3.Server off: -20 C to 45 C (-4 F to 113 F)
 - 7.1.4.Shipment: -40 C to +60 C (-40 F to 140 F)
- 7.2. Humidity:

7.2.1.For 115W to 130W processors/135W processor models:

- 7.2.1.1. Server on: 20% to 80%, max dew point 21 C, max rate of change 5 C/hr
- 7.2.1.2. Server off: 8% to 80%, max dew point 27 C
- 7.2.2.For 60W to 95W processor models:
 - 7.2.2.1. Server on: 8% to 85%, max dew point 24 C, max rate of change 5 C/hr
 - 7.2.2.2. Server off: 8% to 80%, max dew point 27 C
- 7.3. BTU output:
 - 7.3.1.Minimum configuration: 525 Btu/hr (123 watts)
 - 7.3.2.Maximum configuration: 3480 Btu/hr (1020 watts)
- 7.4. Noise level:
 - 7.4.1.Operating 6.6 bels
 - 7.4.2.Idle 6.4 bels

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