NumberSmasher®-5100

Featuring 64-Bit Dual-Core Intel® 5100 Series Processors

64-bit NumberSmasher-5100 delivers Superior Cluster Performance

Microway provides competitively priced, fully integrated Linux clusters, servers and storage solutions for demanding applications. Users worldwide pushing the limits of technology in life sciences, universities, commercial and government research agencies count on us for HPC expertise.

The NumberSmasher-5100 employs the Intel 5000P chipset to provide state of the art 64-bit performance and power efficiency. Performance is measured at up to 65 Gflops with two 3.0 GHz Dual-Core Intel Xeon 5100 series processors. With up to 32 GB of ECC fully buffered memory and integrated dual gigabit ethernet, this Xeon platform is a cost effective solution for demanding HPC requirements.

Designed for Lower TCO

Across the Board™ Cooling is a standard design feature in every Microway CoolFlow chassis. This ensures processors and memory are cooled for longer life and flawless performance.

Microway's CoolFlow™ 1U chassis includes four internal fans plus one blower with strategically placed baffles for optimum cooling.

Design criteria include ready access to peripherals and excellent cooling with redundant fans and wind tunnels driven by negative pressure. This results in very high air flow rates over the processors and memory modules, dramatically increasing their life expectancy. CoolFlow is the coolest running chassis in the industry.

Data Storage Solutions

Microway provides data storage solutions for applications with rapidly expanding storage requirements.

- Entry level RAID
- High-end Fiber Channel SANs
- Scalable NAS with highly available cluster filesystem
- Software support for load balancing and failover clustering
- Tape drives and libraries

Microway CoolFlow™ NumberSmasher-5100 Node Shown with NodeWatch hardware at front right

Remote Monitoring and Cluster Management Tools

NodeWatch™ is the affordable network independent remote monitoring tool that gives you peace-of-mind. NodeWatch measures, reports and records up to eleven fan speeds, five temperatures, and three power supply voltages per node, in addition to providing remote physical control over front-panel power and reset inputs. The entire cluster or individual nodes can be switched on and off, rebooted, and reset remotely. NodeWatch software delivers critical information remotely via a secure, web-based GUI. The combination of NodeWatch™ and MCMS™ (Microway Cluster Management Software) allows for extended control of the cluster as a single unit.

Integration and Consulting Services

Microway's experienced Linux system administrators integrate and test every NumberSmasher-5100 server and cluster with a full complement of benchmark and diagnostic tools, to ensure maximum performance for user applications. Highly reliable, well cooled, and proprietary chassis and cabinet designs further enhance ROI.

Often users need access to experts on the deployment of software on clusters. Microway offers professional consulting services with application expertise that extends beyond the design of their fully integrated HPC cluster and server configurations.

Microway®
Technology you can count on℠

Discover the uncompromising value Microway customers expect.
Call our sales team at 508-746-7341
or visit www.microway.com

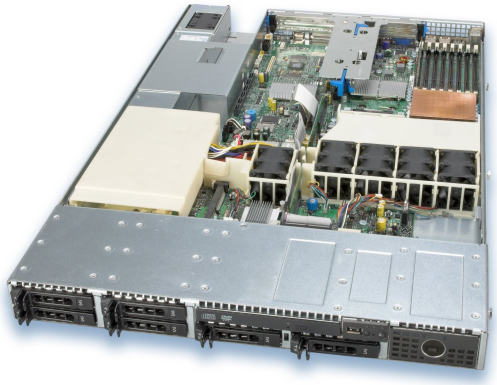
intel® Xeon® inside™

Fully-integrated Clusters for demanding 64-Bit High Performance Computing Applications

Microway
Technology you can count on™

Platform Benefits

The Intel® Dual-Core Xeon™ 5100 series processors provide cost-effective, scalable processing power for HPC and enterprise applications. This platform supports up to 32GB ECC fully buffered DIMMs, with increased memory bandwidth to keep pace with processor and I/O performance enhancements. The 1333 MHz front side bus ensures full bandwidth, low latency memory access. The dual Intel gigabit ethernet adapters and optional channel bonding complete the NumberSmasher-5100 as an ideal cluster platform.



Microway NumberSmasher-5100-I with 6 hot-swap SAS drives and redundant 650W power supplies

High Speed Interconnects

Microway Dual-Core NumberSmasher Clusters are designed with high end connectivity solutions including:

- Myricom® Myrinet™
- Microway FasTree™ InfiniBand
- QLOGIC® (Pathscale) InfiniPath InfiniBand Adapter
- Gigabit Ethernet

NumberSmasher-5100-I Chassis Specifications

- 1U 19" standard rack mount
- One x8 PCI-Express Slot
- I/O Features: chassis access for keyboard, mouse, USB 2.0, video, serial and ethernet
- Up to 8 hot-swap 2.5" SAS or SATA-II hard drives
- Optional Slimline Floppy or CD/DVD
- Power, Disk and LAN activity LED indicators
- Pre-plated steel chassis plus mounting kit and rails
- Two 650W hot-swap power supplies (N+1 redundant)

Software Options

- 64-bit Linux (SUSE, Red Hat, Fedora Core, or Gentoo)
- Microsoft® Windows®
- MCMS™ (Microway Cluster Management Software)
- Microway MPI Link-Checker™ and MPI Fast-Check™
- Intel, Pathscale, PGI and GNU compilers

Offering HPC Solutions Since 1982

GSA

Schedule Number:
GS-35F-0431N

NodeWatch™ Remote Hardware Monitoring Solution

- Web-enabled remote status and power control
- Out-of-bound values are displayed uniquely and alarms sent to system administrator via e-mail
- Common operating system tasks, such as shutdown via the user interface
- No software resides on compute nodes
- NodeWatch is fully customer configurable and information is delivered securely via a web-based GUI

Microway MPI Diagnostic Suite – Performance and Interconnect Analysis

- Analyzes clusters with hundreds of nodes in seconds
- Measures bandwidth and latency between all nodes in any MPI cluster
- Identifies nodes that may lower cluster performance
- Displays performance graphs for each connection
- Identifies corrupt transmissions

Warranty

- One year off-site standard, additional years available

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