

8250

Newisys® NDS-8250

3.5" HDD Storage
Application Array



NDS-8250



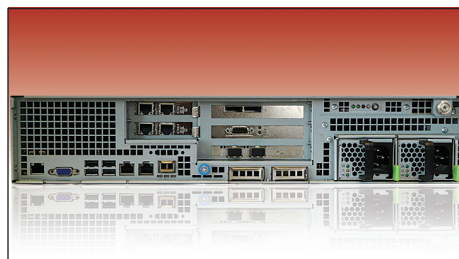
Exceptional scalability for today's storage technology environment.

Robust Cost-effective Storage Application Platform

The demand for integration of leading-edge servers and storage arrays into a single application appliance platform is being driven by the need for increased rack density and associated economies-of-scale, as well as the flexibility to support block or file-based tiered data applications with differing capacity and performance profiles. The Newisys® NDS-8250 SAS/SATA 3.5" hard disk drive (HDD) Storage Application Array is the ideal platform to build a full-featured, high performance and cost-effective SAN, iSCSI and NAS appliance or other storage applications. The Newisys NDS-8250 2U x 12 HDD integrated server/storage application platform offers best-in-class performance, space-saving density, "green" energy efficiency and 24x7 high-availability redundancy of key components. The Newisys NDS-8250 can be customized with a number of options designed to maximize your value proposition for enterprise class data center storage and cloud computing customers.

Partner with Newisys

Partnering with Newisys not only means accelerated time-to-market for storage and cloud computing products, but also the proven strength of our quality, reliability and performance. Customers are backed by an industry-leading design team and a world-class manufacturing organization. The Newisys Flexible Storage Architecture (FSA) provides block-based modular designs and the configuration flexibility that can become the foundation of your storage solutions and accelerate your time-to-market.



NDS-8250 Back Panel



Product Highlights

- Full-featured robust high performance storage with integrated high performance dual-socketed processor (Intel® Urbanna) motherboard
- Supports the latest generation of powerful Intel® 5500 series Xeon® (Nehalem) processors – dual or quad core
- Five PCI slots for maximum range of IO support and product configuration flexibility
- Full PCI card height/length capable including RAID, FC and 10GE PCI cards
- Dual redundant hot-plug, high-efficiency power supply modules
- 3+1 system cooling fan redundancy with energy-efficient variable speed intelligence
- Optional single or dual 2.5" internal SATA HDDs/SSDs for dedicated OS boot support with RAID 0 and 1 support
- Optional internally mounted slim DVD (rear accessible)
- Standard chassis customization and branding available
- Point-to-point connectivity isolates drive failures, increasing reliability and fault tolerance, and improving performance
- Additional SAS storage expansion via daisy-chain
- Use with common storage applications such as Microsoft® Windows® Storage Server™ and with several virtualization hypervisors

System Server

- Motherboard: Intel® Urbana S5520UR
- Intel® Tylersburg chipset (IOH36D, ICH10R)
- CPUs: Up to two dual- or quad-core Intel® Xeon® Nehalem EP processors
- Up to 12 DDR3 RDIMMs 1333Mhz (96GB max)
- Up to 5 PCI-e Gen 2 slots for expansion and customization (3 full height/full length, 2 half height)
- External Ports: Mouse, keyboard, RS232 COM, 1Gb Ethernet (2), VGA monitor and USB (4)

Host Expansion/Interfaces

- Integrated Dual 1Gb Ethernet
- 10Gb Ethernet, Fibre Channel, SAS (selectable via PCI card)
- SAS ports for expansion connections (on PCI card)
- Up to 1200 MB/s throughput bandwidth (application dependant)

Measured Performance

- Up to 750 MB/s (sustained reads)

Capacity

- Up to 12 drives or 24TB capacity per 2U enclosure (using available 2TB HDDs)

Firmware

- SCSI Enclosure Services (SES) 2.0 based firmware

Applications

- Microsoft® Windows® Storage Server™
- VMware® ESX, Microsoft® Hyper-V™ and Citrix® XenServer™ virtualization
- Open-E® Data Storage Server (DSSTM)
- AML® StorTrends®
- Unified NAS/iSCSI

Redundant Hot-swappable Components

- Two power supply modules
- Two independent AC power inlets with domestic NEMA power cords
- Up to 12 drives

Maximum Cable Lengths (Customer Supplied)

- 3Gbps SAS: Up to 6m
- 1Gb Ethernet: up to 10m

Raid Features

- RAID 0,1,10,5,60 (PCI RAID adapter dependant)
- OS software RAID capable
- Auto-negotiate speeds
- In-band and out-of-band management
- SAS/SMP/SSP protocol support
- Redundant cable support

2U Rackmount Enclosure

- Dimensions: 3.5 in. H x 17.6 in. W x 31 in. D (8.9 cm H x 44.7 cm W x 78.7 cm D)
- Weight with drives: 70 lbs (35 kg) max
- Standard Rackmount Rail Kit Adjustable Depth: 28.0 in. to 34.0 in. (71.1 cm to 86.4 cm)

Disk Drives

- 12 independent 300MB/s point-to-point connections to each SAS or SATA disk drive
- Common universal dual-purpose drive carrier/ blank for all 3.5" NDS standard products
- Form factor:
 - External: 3.5" SAS and SATA HDDs
 - Internal: 2.5" SATA HDDs/SSDs (single or dual)
- Rotational speed: 7200 RPM, 10K RPM and 15K RPM
- Interface: 3Gb SAS; 3Gb/1.5Gb SATA

AC Power

- Input voltage: Auto ranging, 90-264VAC
- Input frequency: 47-63Hz
- Power factor correction: Per EN61000-3-2
- Input current: 8.8 Amps RMS max @ 100VAC
- Output power: 760W peak
- Efficiency: 91% @ 230VAC, 50% load
- Variable speed "smart fans"

Operating Environment

- Temperature: 0° to 35°C
- Temperature gradient: 20°C per hour
- Relative humidity: 10 to 80 percent (non-condensing)
- Humidity gradient: 10% per hour
- Altitude: -200 to 10,000 ft.
- Shock: 5G at 11ms, 1/2 sine wave pulse
- Vibration: 0.15G at 5Hz to 400Hz
- Acoustics: 7 Bels at normal operation tested to ISO7779

Non-Operating Environment

- Temperature: -40° to 70°C
- Relative humidity: 5% to 95% (non-condensing)
- Altitude: -200 to 40,000 ft.
- Shock: 10G at 11ms, 1/2 sine wave pulse
- Vibration: 0.5G at 5Hz to 400Hz

Optional DVD

- Internally mounted slim DVD with SATA interposer card/cable (rear accessible)

Electromagnetic Emissions and Immunity Standards

- CE Mark, EN55022/EN61000 Class A
- FCC Class A, Canadian IECS-003
- VCCI Class A

Safety Standards

- UL 60950, CSA 22.2-950
- IEC 60950, EN 60950

Quality Standards

- Manufactured under an ISO 9002 registered quality system

Environmental Protection

- RoHS and WEEE compliant

Failure Notifications

- SCSI Enclosure Services (SES-2) over I2C physical interface, LEDs, audible alarms, field replaceable unit (FRU) revision and serial number reporting

Monitoring

- Temperature, power supply modules, fan speed control, disk drives and I/O module(s), as well as error rates and quality of service

Qualifications

- For Newisys qualifications relative to supported options for specific disk drives, software application environments, PCI adapters, etc., visit www.newisys.com/support



Contact Newisys:

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About Newisys

Newisys, founded in 2000, provides leading-edge data center and cloud computing products including disk-based RAID storage/server appliance platforms and JBOD expansion enclosures, racks and other full solution items targeted for the robust data center and cloud environment. Newisys solutions are tailored for integration into Original Equipment Manufacturer (OEM), System Integrator and Internet Data Center partners' products. A Newisys partnership provides the highest-level quality design and products synchronized with one of the world's most advanced and comprehensive manufacturing infrastructures and supply chains. For more information, visit <http://www.newisys.com>.