HPC 144Rb-1 Server

Offering a blade solution with the flexibility of a 1U Server.

Profit from a highly compact enterprise-class server solution

NEC has a long and excellent reputation as one of the world's leading solution providers in the field of supercomputing. Our focus is to improve the productivity of researchers working in Geophysics and Climate Simulations, Computational Fluid Dynamics, Chemistry and Material Sciences. Our customers appreciate NEC's innovative and highly efficient concepts at affordable costs for their daily business.

The new HPC 144Rb-1 Server provides you with pportunities which are extremely beneficial for your company's applications. By offering you this new highly compact server solution we welcome you to a world of new perspectives.

As one of the first vendors worldwide NEC is able to offer you enterprise-class servers supporting Quad-Core Intel® Xeon® Series 5500 processors. These processors bear the code name Nehalem and are equipped with fast Quick Path Interconnect (QPI) and integrated memory controller.

Houses 2 servers in 1 chassis – saving power and space on a new level

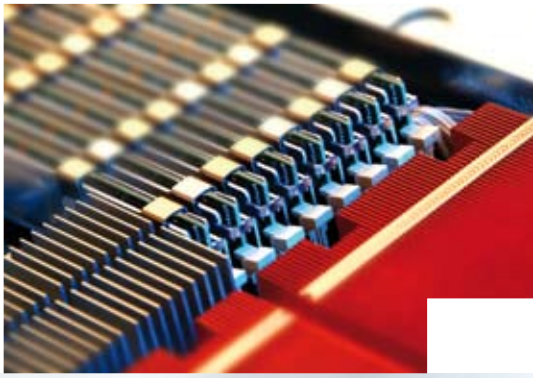
The HPC 144Rb-1 Server opens up new horizons in the harmonization of supercomputing performance and the special needs of your enterprise. In fact it is two servers in a one 1U chassis. This highly compact configuration offers you the same density as a blade solution with the flexibility of 1U commodity servers. The Power Supply Modul allows a highly effective usage of power and space (93%).

The up to 2 x 48 GB main memory in one 1U Server enables most applications to run faster or support more users than other systems.

The combination of these breathtaking new performance features with NEC OSCAR Pro cluster management tools leads to an extremely flexible platform. It is your perfect hardware basis for building small to big compute clusters delivering cost effective services and flexible solutions for High Performance Computing.

The HPC 144Rb-1 Server – a solution with many benefits:

- Four socket/16 CPU-cores in 1U
- Higher memory clock rates
- Increased bus speeds
- Easy deployment and management
- Excellent I/O scalabilities
- Optimized density for large performance
- The best price/performance ratio currently available in the market



Have a closer look at the HPC 144Rb-1 Server's main features:

- 2x Dual 64-bit performance in a 1U
- 2x Two hot-swap SATA2 drive bays
- 2x 32 GB of Fully Buffered DDR2 667/800 Registered ECC memory
- 2x Two Gigabit Ethernet ports
- 2x PCI-Express x16 (Gen2)
- 2x On-board InfiniBand SDR/DDR
- 2x IPMI 2.0 plus KVM over LAN
- 1 Shared fixed PSU (980 W) with PFC

Additionally we offer you 2 attractive options:

Decide for NEC OSCAR Pro and use highly efficient administration and monitoring software for Linux clusters in order to give your HPC 144Rb-1 Server a high degree of scalability.

Our convenient NEC HPC Services performed by skilled HPC experts help you to install your solution, train your staff and develop your individual supercomputing infrastructure even further.

The new HPC 144Rb-1 Server houses 2 servers in 1 chassis.

Here are its technical specifications per server:

Processor:
- Supports Quad Intel® Xeon® 5400 Series
- Ready for Quad-Core Nehalem
- Up to 3.0 GHz clock speed
- Up to 1600 FSB

Chipset:
- Intel® 5400 chipset (code-named Seaburg)
- Intel® ESB2/Gilgal 82563EB

Memory:
- Supports fully buffered DIMM
- DDR2 667/800 ECC registered
- 8 DIMM slots
- 4 GB per DIMM for a maximum memory size of 32 GB

PCI-X slots:
- One PCI-Express x16 Gen2 (low profile)

Storage device:
- Two hot-swap SATA2 HDD bays

Integrated LAN controllers:
- Double-port Gigabit Ethernet Controller
- Intel® ESB2/Gilgal 82563EB
- Compatible PXE

Entries/exits:
- 2 Rear USB ports 2.0
- 1 VGA port
- 1 COM port
- 2 RJ-45 LAN jacks

InfiniBand:
- On-board Mellanox InfiniBand SDR/DDR

Management:
- IPMI 2.0 management card (optional)
- KVM over LAN (optional)

BIOS:
- 4 Mbit Flash Phoenix EEPROM
- ACPI
- PXE support

Chassis (integrating two servers):
- Rack montable 1U
- 440(W) x 705(D) x 43(H) mm
- 1 shared fixed PSU
- 980 watts w/PCF (92% efficiency)

Operating System:
- Red Hat® and Suse® distributions

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