



Express5800/120Ba-4

- **Maximum of 120 CPUs in a 42U Rack for Ultra-Dense Computing Power**
- **Up to 6 Hot-Plug Blade Servers in a 4U Rack Enclosure**
- **Latest Intel® Xeon™ with EM64T, FSB800**
- **PCI-X slot for Flexibility & High Throughput**
- **Hot-Plug Hard Disk Drives**

*The High-Performance
Computing Blade Server*





BLADE SPECIFICATIONS

FORM FACTOR

4U Blade

PROCESSOR

Up to 2 Intel® Xeon™ 2.8GHz to 3.6GHz
FC-mPGA4 packaging
1MB of integrated L2 cache

ARCHITECTURE

Intel 7320 chipset
800MHz Front Side Bus (FSB)
Integrated BMC IPMI 1.5 compliant
Single edge connector for chassis midplane connection

MEMORY

512MB / up to 8GB* DDR2 400MHz ECC SDRAM (Registered) – 2-way interleaved
4 DIMM slots

STORAGE

Controls up to 2 front access HDDs
Embedded 1-ch Ultra 320 SCSI controller
Embedded HostRAID (RAID 0, 1)
Options:
2-ch FC controller card
2-ch Gigabit Ethernet Controller card
External USB connected FDD and CD-ROM drives

SLOTS

1 PCI-X low profile with standard bracket:
1x 64bit/133MHz (free)

VIDEO

Embedded SVGA controller
Embedded 8MB VRAM standard

NETWORK

Embedded 2-ch Gigabit Ethernet controller

I/O PORTS

1 cable providing connections for:
2x USB Ports
1x serial port
1x SVGA (Mini D-Sub 15pin)

PHYSICAL SPECIFICATIONS

166 x 490.3 x 42.2 mm (W x D x H)

OS AND SOFTWARE

ESMPRO Server Manager (Manager/Agent)
Deployment Manager Full
ExpressBuilder Set-up & Configuration software
Dianascope Remote Management Software

Certified OS :
Windows Server 2003
Red Hat Linux 3.0*

REGULATORY & SAFETY

CE compliant

LAN SWITCH SPECIFICATIONS

ETHERNET PORTS

6x 1000 down links (to blades)
3x 10/100/1000 up links (to network)

MANAGEMENT

Integrated A-RMC with Remote KVM function
1x 10/100 management port

ENCLOSURE SPECIFICATIONS

FORM FACTOR

4U Rack

PHYSICAL SPECIFICATIONS

440 x 905 x 177 mm (W x D x H)

BLADE / LAN SWITCH

Up to 6 blades (Hot-Plug)
Up to 2 LAN Switch (Hot-Pug Redundant)

POWER SUPPLY

1x1000W Hot-Plug Standard
1 standard + 3x1000W RHS option

BAYS/STORAGE

Up to 12 Hot-plug SCSI HDD (3.5")
36/73/146GB U320 10/15Krpm or 300GB 10Krpm
(2 per Blade maximum)

VENTILATION

Redundant Front / Rear Hot-Plug Fans modules

I/O PORTS

2x ICMB (Front)
1x Serial port (RJ-45 front)
1x USB (front)
12x RJ45 port blade option

WARRANTY (Enclosure and Blades)

3 years on-site standard warranty
Optional warranty extensions

Express5800/120Ba-4

The High-Performance Computing Blade Server

Power-Efficient, Ultra High-Density Blade Server

The high density and power-efficient design of the Express5800/120Ba-4 result in savings for the user both in power consumption and datacenter real estate costs.

The NEC Express5800/120Ba-4 blade server can accommodate up to two Intel® Xeon™ EM64T processors. As many as 6 blades (or 12 CPUs) and 12 hot-plug disk drives can be installed in the 4U blade enclosure. With 10 enclosures per industry standard 42U rack, this makes possible the installation of up to 60 blades (or 120 CPUs) in the rack, and offers a degree of performance density unachievable with standard server configurations.

This NEC Express5800 blade server uses low voltage components and reduces the number of fans needed to cool all the blades and disk drives by leveraging the enclosure fans. As a result the power consumption of the system is significantly reduced.

High Reliability & Enhanced Scalability

The ultra-high density design and reduced size of the Express5800/120Ba-4 blade do not compromise system availability or expandability.

Multiple features of the blade server and the enclosure, such as ECC memory, hot-plug disk drives, power supplies and fans, maximize the blade system uptime. NEC ESMPRO and Dianascope management software allow close control of the blade operation and help to maintain system availability.

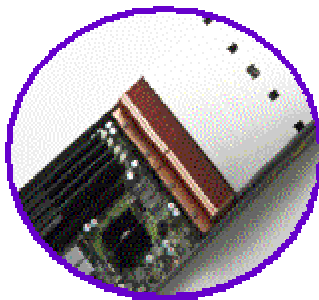
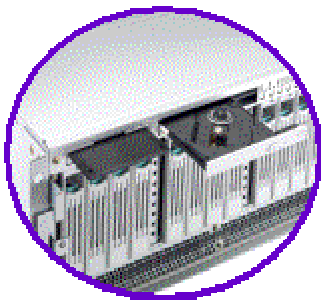
The expandability and network connection also remains excellent with 2 optional LAN switches including KVM over IP function and a PCI-X expansion slot on each blade.

Comprehensive Manageability & Easy Maintenance

NEC ESMPRO Server Manager and Agent, delivered as a standard with the blade server, enable integrated, multiple-server management. Along with the BMC (Baseboard Management Controller), which makes possible the collection of data and monitoring of the status of hardware such as the CPU, memory and HDD, they give the blade server the capability to closely monitor the operational status, configuration and hardware/software fault generation.

Dianascope Remote management software gives you full control of your servers remotely and thus allows you to take full advantage of your blade servers anywhere from a remote console.

In addition to high availability features the NEC Express5800/BladeServer system is also designed to permit the addition and exchange of blade servers without interrupting the operation of other blades in the same enclosure.



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