

High-density Rack Server

NEC Express5800/R120f Rack Server



AT A GLANCE

- Latest Intel® Xeon® Processor E5-2600 v3 Family
- Excellent I/O Performance for Server Virtualization
- Energy Efficiency with Intelligent Fan Control
- Advanced Power Capping for OPEX Savings
- Simplified Manageability

OVERVIEW

The NEC Express5800/R120f, a high-density mounting dual-socket rack server with the latest Intel® Xeon® processors, provides outstanding performance with limited space, reliability, and simplified management. Its green technology enables the operation

in temperatures of 104°F (40°C) to lower air conditioning costs for server rooms. Reinforcing I/O performance with storage and other peripheral devices, the NEC Express5800/R120f is designed for the most demanding applications that require high data volumes.

SOLUTION

Distinguished Performance & Capability

- Features the latest Intel® Xeon® E5-2600 v3 series 18-core processors for maximum energy efficiency and performance
- Supports high speed DDR4 memory (up to 768GB), ideal for memory-intensive computing such as virtualization and in-memory database
- 12Gb/s SAS RAID controllers and hard drives for high I/O performance – ideal for server virtualization

Superior Energy Efficiency

- Features industry-leading intelligent fan control to minimize cooling power with individually optimized fan speeds
- Advanced power capping function for energy saving
- 80 PLUS® Platinum and Titanium certified power supply
- Two power supply units (460 W and 800 W) and cold-standby mode to maximize AC/DC efficiency for various sized system

Simplified Manageability

- Delivers integrated EXPRESSSCOPE Engine 3 technology to provide extensive remote management capabilities regardless of the status of the server's power or operating system
- Comes standard with the "on-board" EXPRESSBUILDER system setup utility, which supports the Microsoft® Windows Server® 2012 R2 Hyper-V automatic setup
- Build in with the NEC ESMPro server management software for remote monitoring

Ideal Applications

- Mid-size database, collaboration, ERP applications and virtualization
- High performance computing

Specifications

	Express5800/R120f-1M	Express5800/R120f-2M
Form factor / Height	1U Rack	2U Rack
Number of processors	1 to 2	1 to 2
Processor	Intel® Xeon® Processor E5-2603 v3 (1.60 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2609 v3 (1.90 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2620 v3 (2.40 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2640 v3 (2.60 GHz/8-core/20 MB) Intel® Xeon® Processor E5-2650L v3 (1.80 GHz/12-core/30 MB) Intel® Xeon® Processor E5-2660 v3 (2.60 GHz/10-core/25 MB) Intel® Xeon® Processor E5-2670 v3 (2.30 GHz/12-core/30 MB) Intel® Xeon® Processor E5-2690 v3 (2.60 GHz /12-core/30 MB) Intel® Xeon® Processor E5-2695 v3 (2.30 GHz /14-core/35 MB) Intel® Xeon® Processor E5-2697 v3 (2.60 GHz/14-core/35 MB) Intel® Xeon® Processor E5-2698 v3 (2.30 GHz/16-core/40 MB) Intel® Xeon® Processor E5-2699 v3 (2.30 GHz/18-core/45 MB)	Intel® Xeon® Processor E5-2603 v3 (1.60 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2609 v3 (1.90 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2620 v3 (2.40 GHz/6-core/15 MB) Intel® Xeon® Processor E5-2623 v3 (3 GHz/4-core/10 MB) Intel® Xeon® Processor E5-2637 v3 (3.50 GHz/4-core/15 MB) Intel® Xeon® Processor E5-2640 v3 (2.60 GHz/8-core/20 MB) Intel® Xeon® Processor E5-2643 v3 (3.40 GHz/6-core/20 MB) Intel® Xeon® Processor E5-2660 v3 (2.60 GHz/10-core/25 MB) Intel® Xeon® Processor E5-2667 v3 (3.20 GHz/8-core/20 MB) Intel® Xeon® Processor E5-2670 v3 (2.30 GHz/12-core/30 MB) Intel® Xeon® Processor E5-2690 v3 (2.60 GHz /12-core/30 MB) Intel® Xeon® Processor E5-2697 v3 (2.60 GHz/14-core/35 MB) Intel® Xeon® Processor E5-2699 v3 (2.30 GHz/18-core/45 MB)
Memory type	DDR4-2133 ECC RDIMM DDR4-2133 ECC LRDIMM	DDR4-2133 ECC RDIMM DDR4-2133 ECC LRDIMM
Memory slots	24	24
Max. memory	768GB	768GB
Storage type	Hot plug 2.5-inch SAS HDD Hot plug 2.5-inch SATA HDD Hot plug 2.5-inch SAS SSD	Hot plug 2.5-inch SAS HDD Hot plug 2.5-inch SATA HDD Hot plug 2.5-inch SAS SSD
Max. internal drive bays	8	8 to 16 with optional drive cage
Max. internal storage	14.4 TB	28.8 TB
Removable media bays	1 bay for optical disk drive	1 bay for optical disk drive 1 bay for internal tape drive
Expansion slots	2 PCIe x8 Gen 3 1 PCIe x8 Gen 3 for a RAID controller 1 PCIe x8 Gen 3 for a flexible integrated NIC	6 PCIe x8 Gen 3 1 PCIe x8 Gen 3 for a RAID controller 1 PCIe x8 Gen 3 for a flexible integrated NIC
Network interface	1 100BASE-TX for management	1 100BASE-TX for management
Redundant power supply	Optional, hot plug	Optional, hot plug
Redundant cooling	Standard , hot plug	Standard , hot plug
Power supplies	460 Watt, 800 Watt	460 Watt, 800 Watt, 1000 Watt
Server management	EXPRESSSCOPE Engine 3	EXPRESSSCOPE Engine 3
Interface	2 VGA, 1 to 2 serial, 4 USB 3.0 (plus 1 internal USB 2.0), 2 USB 2.0, 1 management LAN	2 VGA, 1 to 2 serial, 4 USB 3.0 (plus 1 internal USB 2.0), 2 USB 2.0, 1 management LAN
Dimensions (W x D x H) & maximum weight	439.8 x 722.0 x 43.4 mm / 17.3 x 28.4 x 1.7 in 23 kg / 50.70 lbs.	448.0 x 735.8 x 87.2 mm / 17.6 x 29.0 x 3.4 in 20.5 kg / 45.19 lbs.
Temperature and humidity condition (non-condensing)	Operating: 10 to 40°C / 50 to 104°F, 20 to 80% Non-operating: -10 to 55°C / 14 to 131°F, 20 to 80%	Operating: 10 to 40°C / 50 to 104°F, 20 to 80% Non-operating: -10 to 55°C / 14 to 131°F, 20 to 80%
Operating systems and virtualization software	Microsoft® Windows Server® 2008 Standard (x86) Microsoft® Windows Server® 2008 Enterprise (x86) Microsoft® Windows Server® 2008 R2 Standard Microsoft® Windows Server® 2008 R2 Enterprise Microsoft® Windows Server® 2012 Standard Microsoft® Windows Server® 2012 Datacenter Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter Red Hat Enterprise Linux 6 ¹ VMware® ESX™i 5	Microsoft® Windows Server® 2008 Standard (x86) Microsoft® Windows Server® 2008 Enterprise (x86) Microsoft® Windows Server® 2008 R2 Standard Microsoft® Windows Server® 2008 R2 Enterprise Microsoft® Windows Server® 2012 Standard Microsoft® Windows Server® 2012 Datacenter Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter Red Hat Enterprise Linux 6 ¹ VMware® ESX™i 5

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