

NEC Express5800 Servers Portfolio Guide

MAXIMUM POWER EFFICIENCY AND PERFORMANCE FOR THE ENTERPRISE



OUTSTANDING PERFORMANCE

EXTREME POWER EFFICIENCY

SIMPLIFIED SERVICEABILITY

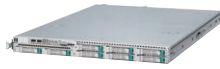
A Full Range, Meeting Diverse Needs

NEC Express5800 servers are designed for data center class performance with high system level resilience especially suited for business critical environments.

Available in a wide variety of models, NEC servers are based on industry-leading Intel® Processor technology. NEC server family capabilities include non-stop fault tolerant processing and extreme scaling up to 60 cores and 120 threads with NEC's industry-leading dynamic partitioning technology. With our long history of technology innovation, you can trust NEC to consistently deliver high quality and value.

Standard Rack Servers

With their high reliability, scalability, manageability and serviceability, NEC's rack servers are designed to perform the most demanding applications for any kind of business.



NEW



MODEL	Express5800/R110g-1E	Express5800/R120f-1E	Express5800/R120f-1M
Positioning	Performance network and web infrastructure server	Entry business application and front-end application server	Entry scalable enterprise system for memory-intensive workloads
Form factor / height	1U Rack	1U Rack	1U Rack
Number of processors	1	1 to 2	1 to 2
Processor(s)	Intel® Pentium® Processor G3000 Series Intel® Xeon® Processor E3-1200 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family
Maximum memory	32 GB	512 GB	768 GB
Maximum internal drive bays	6 to 8 Hot plug 2.5-inch or 4 Hot plug 3.5-inch	8 Hot plug 2.5-inch	8 Hot plug 2.5-inch
Expansion slots	1 PCIe 3.0 x16 1 PCIe 2.0 x4	2 PCIe 3.0 x8, 1 PCIe 3.0 x8 for a RAID controller, 1 PCIe 3.0 x8 for a flexible integrated NIC	2 PCIe 3.0 x8, 1 PCIe 3.0 x8 for a RAID controller, 1 PCIe 3.0 x8 for a flexible integrated NIC



NEW



NEW



MODEL	Express5800/R120f-2E Standard	Express5800/R120f-2M	Express5800/R120f-2E Storage Rich
Positioning	Performance business application server	Scalable enterprise system for memory- and processor-intensive workloads	Scalable network attached storage for small to medium sized business
Form factor / height	2U Rack	2U Rack	2U Rack
Number of processors	1 to 2	1 to 2	1 to 2
Processor(s)	Intel® Xeon® Processor E5-2600 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family
Maximum memory	512 GB	768 GB	512 GB
Maximum internal drive bays	8 to 16 Hot plug 2.5-inch	8 to 16 Hot plug 2.5-inch	16 to 26 Hot plug 2.5-inch or 12 Hot plug 3.5-inch plus 2 Hot plug 2.5-inch
Expansion slots	2 PCIe 3.0 x16, 2 PCIe 3.0 x8 1 PCIe 2.0 x4	6 PCIe 3.0 x8, 1 PCIe 3.0 x8 for a RAID controller, 1 PCIe 3.0 x8 for a flexible integrated NIC	2 PCIe 3.0 x16, 2 PCIe 3.0 x8 1 PCIe 2.0 x4

Standard Tower Servers

With their reliability and availability at affordable prices, NEC's tower servers are designed to address any business environment, from work groups and small businesses to medium enterprises.



NEW



MODEL	Express5800/T110g-S	Express5800/T110g-E	Express5800/T120f
Positioning	Entry branch office and remote office server, store / factory infrastructure	Entry branch office and remote office server	Branch office server for medium to large enterprise
Form factor / height	Slim Tower / 3U Rack	Mini Tower / 4U Rack	Mini Tower / 5U Rack
Number of processors	1	1	1 to 2
Processor(s)	Intel® Pentium® Processor G3000 Series Intel® Core™ i3-4300 Desktop Processor Series Intel® Xeon® Processor E3-1200 v3 Product Family	Intel® Celeron® Processor G1000 Series Intel® Pentium® Processor G3000 Series Intel® Core™ i3-4300 Desktop Processor Series Intel® Xeon® Processor E3-1200 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family
Maximum memory	32 GB	32 GB	512 GB
Maximum internal drive bays	4 to 6 Hot plug 2.5-inch or 2 Non-hot plug 3.5-inch plus 2 Non-hot plug 2.5-inch	8 Hot plug 2.5-inch or 4 Hot plug 3.5-inch or 4 Non-hot plug 3.5-inch	8 to 24 Hot plug 2.5-inch or 4 to 8 Hot plug 3.5-inch
Expansion slots	1 PCIe 3.0 x16, 1 PCIe 2.0 x4, 2 PCIe 2.0 x1	1 PCIe 3.0 x16, 1 PCIe 2.0 x4, 2 PCIe 2.0 x1	2 PCIe 3.0 x16, 2 PCIe 3.0 x8, 1 PCIe 2.0 x4

Modular Server

Incorporating highly density mounting and extreme power efficiency, NEC's modular servers provide scale-out computing solution for data center.



Blade Systems

Based on NEC's high density design and superior system management technologies, NEC's Blade server systems provide a versatile infrastructure to quickly deliver services to your business.

Server Blades



NEW



MODEL	Express5800/E120f-M	Express5800/B120f	Express5800/B120f-h
Positioning	Scalable network and application service infrastructure system	Performance business application, database, collaboration server	High performance datacenter-class database, virtualization, or application server
Form factor / height	1U half width	One bay height	One bay height
Number of processors	1 to 2	1 to 2	1 to 2
Processor(s)	Intel® Xeon® Processor E5-2600 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family	Intel® Xeon® Processor E5-2600 v3 Product Family
Maximum memory	512 GB	384 GB	576 GB
Maximum internal drive bays	4 Hot plug 2.5-inch	2 Hot plug 2.5-inch	2 Non-hot plug 2.5-inch for SSD
Expansion slots	1 PCIe 3.0 x16, 1 PCIe 3.0 x8 for dedicated PCI cards	1 Type I Mezzanine, 1 Type II Mezzanine, 1 PCIe for a flexible integrated NIC	1 Type I Mezzanine, 1 Type II Mezzanine, 1 PCIe for a flexible integrated NIC

Storage and Tape Blades



Blade Enclosures



MODEL	Express5800/AD106c	Express5800/AT101b	MODEL	Blade Enclosure M	Blade Enclosure H v2
Positioning	Affordable direct attached storage solution for diverse business	Affordable direct attached data protection solution for medium enterprise	Positioning	Server infrastructure for medium enterprise	Server infrastructure for large enterprise
Form factor / height	One bay height	One bay height	Form factor / height	6U Rack	10U Rack
Type	Hot plug 2.5-inch drive cage	LTO-5 tape drive	Blade bays	8	16
Maximum internal drive bays	6	1	Switch module bays	6	8
Expansion slots	1 Type I Mezzanine, 1 Type II Mezzanine	1 Type I Mezzanine, 1 Type II Mezzanine	Power supply bays	4	6
			Cooling	Up to 5 active cooling fans	Up to 10 active cooling fans
			Switch modules	1Gb / 10Gb / 1:10Gb L3 Switch, 1Gb / 10Gb Pass-Through Card, 8Gb FC Switch	1Gb / 10Gb / 1:10Gb L3 Switch, 1Gb / 10Gb Pass-Through Card, 8Gb FC Switch

Fault Tolerant Servers

With their dual modular redundancy design, NEC's fault tolerant servers deliver 99.999% system uptime and operational simplicity for the most important applications requiring 24/7 operations.



Scalable Enterprise Servers

Combining record-breaking performance with exceptional configuration flexibility, capacity, reliability and availability, NEC's enterprise servers deliver the best solution for diverse mission-critical business.



MODEL	Express5800/R320d	Express5800/R320c	Express5800/A1040b	Express5800/A2000
Positioning	Performance business application server requiring continuous uptime	Performance business application server requiring continuous uptime	Scalable enterprise server for compute-intensive and memory-hungry applications in physical and virtualized environment.	Scalable enterprise server for mission-critical tasks, heavy transactional workloads, and large-scale virtual infrastructure environments
Form factor / height	4U Rack	4U Rack	4U Rack	4U Rack
Number of processors	1 to 2	1 to 2	1 to 4	2 to 4 (model dependent)
Processor(s)	Intel® Xeon® Processor E5-2600 v2 Product Family	Intel® Xeon® Processor E5-2600 Product Family	Intel® Xeon® Processor E7-8800 v2 Product Family Intel® Xeon® Processor E7-4800 v2 Product Family	Intel® Xeon® Processor E7-8800 v2 Product Family Intel® Xeon® Processor E7-4800 v2 Product Family
Maximum memory	256 GB (Logical)	256 GB (Logical)	4 TB	4 TB (model dependent)
Maximum internal drive bays	8 Hot plug 2.5-inch	8 Hot plug 2.5-inch	8 Hot plug 2.5-inch	8 Hot plug 2.5-inch
Expansion slots	2 PCIe 2.0 x8, 2 PCIe 2.0 x4 / R320d-M4, 2 PCIe 2.0 x4 / R320d-E4	2 PCIe 2.0 x8, 2 PCIe 2.0 x4 / R320c-M4, 2 PCIe 2.0 x4 / R320c-E4	14 PCIe 3.0 x8, 2 PCIe 3.0 x4	14 PCIe 3.0 x8, 2 PCIe 3.0 x4 (model dependent)

NEC Deeply Involved In Eco Design

NEC's Express5800 Server Family delivers innovative features that address today's complex IT infrastructure computing needs and Eco constraints. NEC has particularly worked on the power efficiency of its servers to deliver real solutions to reduce procurement and operations costs.

Depending upon the models, NEC servers can benefit from the following features:

- An NEC's optimized cooling technology and intelligent fan control to support operation in a 40 degree Celsius (104 degree Fahrenheit) environment to minimize cooling costs

- 80 PLUS® Platinum or Titanium certified power supplies to maximize power efficiency
- Shared power supply design and redundant power supplies with cold-standby feature to sustain a maximum power conversion efficiency

NEC Hardware Management Software

The **EXPRESSSCOPE Engine** is a specially designed baseboard management controller (BMC) chipset to provide extensive remote management capabilities from monitoring the health of remote server components including CPUs, memory, and cooling fans, to remotely controlling and powering on/off the servers regardless of the status of the server's power or operating system.



The **ESMPRO software suite** facilitates daily IT service operations. ESM PRO provides the automatic deployment of BIOS and firmware updates on the servers and centralized management capabilities of servers, as well as advanced power management capability to monitor and control power consumption of servers.



The **EXPRESSBUILDER** is an automated software integration tool to simplify the process of installing and configuring NEC Express5800 servers. It provides a flexible, guided installation process for system administrators to install software operating systems. The software also includes utilities that ensure consistent and effective server setup.

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Asia (APAC)
NEC Corporation

7-1, Shiba 5-chome Minato-ku
Tokyo 108-8001 Japan

www.nec.com/express

Europe (EMEA)
NEC Enterprise Solutions

Olympia 4
1213 NT Hilversum
The Netherlands
+31 35 6899111

www.nec-enterprise.com

North America
NEC Corporation of America

3151 Jay Street, Ste. 110,
Santa Clara, CA 95054 U.S.
+1 866 632 3226

www.necam.com/servers