

Express5800/A1080a Series

5th Generation Enterprise Server



At a Glance

- Built with Intel® Xeon® processor E7 series
- Higher IO throughput
- Performance optimized for virtualized environment
- Integrated memory RAS features for higher data integrity
- Proactive service alerts by service processor(s) based error logging
- Modular in-box partitioning in a single 7U chassis
- NEC's green power cooling technology minimizes power consumption

Overview

Leveraging NEC's world-class supercomputer and mainframe heritage, the NEC Express5800/A1080a enterprise server provides exceptional configuration flexibility, capacity, reliability and availability – not to mention record-breaking performance exploiting the inherent functionality of the Intel® Xeon® processor E7 series.

NEC's Express5800/A1080a series of servers are the ideal platform for consolidation, database, and line of business applications.

Solution

Scalable and Flexible

NEC's Express5800/A1080a series server can accommodate up to 2 TB of memory and 160 threads with modular in-box partitioning in an innovative single 7U chassis. Whether for memory hungry virtualization solutions, compute intensive databases, or high availability for mission-critical business, IT managers have the flexibility to scale and configure the new Express5800/A1080a series server for their unique datacenter requirements.

Addresses Blade and Server Sprawl

The Express5800/A1080a series server is especially suited for environments struggling with managing various server architectures or space constraints due to. NEC's innovative server-in-a-box approach offers IT managers the option of having a unified management environment on a common architecture regardless of workload.

Cost Savings

Designed to be less costly than two discrete servers, this latest generation of NEC enterprise servers can save rack space and power with the advanced partitioning and power cooling technology.

Exceptional Performance

Building upon the record-breaking performance of the NEC enterprise scalable servers, the A1080a series server utilizes Intel's QuickPath Interconnect (QPI) technology, delivering 2X database performance improvement.

Simple Standardized Management

Combining Intel's new architecture with NEC's advanced RAS features, the Express5800/A1080a series server supports standard operating systems for out-of-box implementation. It offers exceptional availability and serviceability with built-in service processors that work in conjunction with NEC's BIOS and Intel's Machine Check Architecture (MCA) to simplify management of all server resources.

Description		Specifications		
Model		A1080a-S	A1080a-D	A1080a-E
		Single four-socket server	Dual four-socket servers	Eight-socket server
CPU	CPU Socket	1 to 4 sockets	1 to 4 sockets per partition	8 sockets
	Core / Thread (Max)	40 core / 80 thread	40 core / 80 thread per partition	80 core / 160 thread
	Processor(s)	Intel® Xeon® processors E7-8800/4800 series and 7500 series		
	Type	Intel® Xeon® processors E7-8870 Intel® Xeon® processors E7-8850 Intel® Xeon® processors E7-8830 Intel® Xeon® processors E7-4820 ¹	Intel® Xeon® processors E7-4807 ¹ Intel® Xeon® processor X7560 Intel® Xeon® processor X7550 Intel® Xeon® processor E7540	
Memory	DIMM Type	DDR3 1066MHz Registered ECC DIMM(1.5V/1.35V)		
	Slots	16 to 64 slots	16 to 64 slots per partition	128 slots
	Min/Max	4 GB / 1 TB	4 GB / 1 TB per partition	8 GB / 2 TB
I/O	PCI Type	PCI Express 2.0 x8 and x16		
	Slots	6 (x8) slots, 1 (x16) slot	6 (x8) slots, 1 (x16) slot per partition	12 (x8) slots, 2 (x16) slots
Storage	Internal HDD Type	SAS SFF 2.5" HDD or SSD (Hot-swap)		
	Controller	2-channel 6 Gbps SAS RAID Controller		
	RAID Options	RAID levels 0/1/5/6/10/50		
	Drive Options	146/300 GB 15K RPM, 300/450/600/900 GB 10K RPM and SSD ²		
	Slots	6 hot plug slots	6 hot plug slots per partition	12 hot plug slots
Peripheral Devices		1 DVD-ROM or DVD-R/W drive ³		
External Interfaces		2 1000Base-T ports 1 VGA 1 RS232C Serial port 2 front / 2 rear USB	2 1000Base-T ports 1 VGA 1 RS232C Serial port 2 front USB (shared) 2 rear USB	2 1000Base-T ports 1 VGA 1 RS232C Serial port 2 front / 2 rear USB
Service Processor(s)		1 100Base-T port for management Performs Hardware Configuration and Server Control Performs Hardware Error Management and Correction Performs MCA handling ⁴ Communicates with NEC Server Monitoring Software (ESMPro)		
Power		2158VA / 2115W	3896VA / 3818W	3869VA / 3792W
		2-4 80 PLUS ⁵ GOLD Power Supply	2-4 80 PLUS ⁵ GOLD Power Supply	2-4 80 PLUS ⁵ GOLD Power Supply
		2N redundancy	2N redundancy	2N redundancy
Physical Dimensions		7U Rack mount Width: 19.2 in. (488 mm) x Depth: 28.1 in. (714 mm) x Height: 12.0 in. (307 mm)		
Weight (Maximum)		132 lb. (60 kg)	176 lb. (80 kg)	176 lb. (80 kg)
Operating Systems ⁶		Windows Server 2008 x64 SP2 Enterprise and Datacenter Editions Windows Server 2008 x64 R2 Enterprise and Datacenter Editions Windows Server 2008 x64 R2 SP1 Enterprise and Datacenter Editions ⁶	RedHat Enterprise Linux 5.5 or later ⁶ RedHat Enterprise Linux 6.1 or later ⁶ VMware vSphere ESX and ESXi 4.0 or later	
Warranty		3-Years Limited Warranty (upgraded service available)		

Footnotes

- Supported only -S & -D model
- 300GB 15K RPM, 900GB 10K RPM and SSD available 2H2011
- Red Hat Enterprise Linux supports only DVD-ROM drive
- Require MCA supported OS for full support
- Each supported operating systems may have configuration restrictions
- Windows Server 2008 R2 SP1 on Intel® Xeon® E7 family, RedHat Enterprise Linux 5.6 and RedHat Enterprise 6.1 available 1H2011

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