

Scalable HA Server Series

NEC Express5800/A1080a



NEC's premier line of enterprise platforms pursuing the highest level of scalability, availability, and reliability in every aspect to support your business in the cloud era

Exceptional flexibility, capacity, and record-breaking performance

Exceptional performance

Exploiting the inherent functionality of Intel® Xeon® processor 7500 series, the latest multi-core CPU adapting QuickPath Interconnect (QPI) architecture, A1080a series gluelessly scales up to 8 CPUs and 64 cores. Maximum 16 memory slots per CPU socket are supported to enable up to 1TB of total memory in an 8 CPU configuration. Parallel processing of total 128 threads and massive memory enable exceptional processing performance to address demanding requirements for real-time analysis of vast databases and accommodating data warehouse systems (DWH) as well as large-scale virtualized environments.

Simple management and highly-reliable design

Combining Intel's new architecture with NEC's advanced RAS features, the A1080a series provide efficient monitoring and management capabilities. It also 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) recovery function to simplify management of all server resources.

Cost savings

Components such as heat sinks, air ducts, and fans use light material to reduce total weight*1 by 14% compared to the previous model. In addition, 80 PLUS® Gold certified*2 power supplies are adopted for high energy efficiency. Through weight and power reduction, A1080a series contribute to minimize your costs on IT infrastructure.

*1 : Comparison between A1160 x2 boxes and A1080a-D

*2 : The 80 PLUS® program (<http://www.80plus.org/>) is an electric utility-funded incentive program to integrate more energy-efficient power supplies into electronic devices

For enterprise-level computing solutions

A1080a series servers deliver exceptional reliability and scalability to meet enterprise requirements of the most demanding mission-critical applications and cloud services platforms.

- Large-scale server consolidation and virtualization platforms which require massive resource pools
- Compute-intensive enterprise application servers of large-scale database environments and ERP systems

Specifications

Model

A1080a-E : Eight-socket server
 A1080a-D : Dual four-socket server
 A1080a-S : Four-socket server

Processors

Intel® Xeon® 7500 processor series:
 X7560 (2.26GHz, 8C/16T, 24MB L3 cache)
 L7555 (1.86GHz, 8C/16T, 24MB L3 cache)
 X7550 (2GHz, 8C/16T, 18MB L3 cache)
 L7545 (1.86GHz, 6C/12T, 18MB L3 cache)
 X7542 (2.66GHz, 6C/6T, 18MB L3 cache)
 E7540 (2GHz, 6C/12T, 18MB L3 cache)
 E7520 (1.86GHz, 4C/8T, 18MB L3 cache)*¹

*1 : Not supported by A1080a-E

Memory

DDR3-1066 SDRAM DIMM, Registered
 ECC, SDDC, on-line sparing, mirroring
 8GB - 1TB for A1080a-E
 4GB - 512GB for A1080a-D (per server) and A1080a-S

Storage

SAS SFF 2.5-inch HDD (hot-swap)
 RAID levels 0 / 1 / 5 / 6 / 10 / 50
 Up to 7.2TB for A1080a-E
 Up to 3.6TB for A1080a-D (per server) and A1080a-S

Peripheral devices

1 DVD-ROM

External Interfaces

2 1000BASE-T*²
 1 VGA*²
 1 RS232C serial port*²
 2 front*³ / 2 rear*² USB

*2 : Per server in A1080a-D

*3 : Shared with two servers in A1080a-D

Service processors

1 1000BASE-T port for management LAN (per server)

Power

2-4 80 PLUS® Gold certified power supply
 2N redundancy
 Maximum power consumption (200V) :
 3869VA/3792W(A1080a-E),3896VA/3818W(A1080a-D),2158VA/2115W(A1080a-S)

Dimensions (W x D x H mm)

448 x 714 x 307 (7U rack height)
 448 x 842 x 307 (including protruding objects and guide rails)

Weight (Maximun)

79.2Kg for A1080a-E
 79.6Kg for A1080a-D
 63.5Kg for A1080a-S

Operating systems

Microsoft® Windows Server® 2008 R2 Enterprise
 Microsoft® Windows Server® 2008 R2 Datacenter
 Microsoft® Windows Server® 2008 Enterprise (x64) SP2
 Microsoft® Windows Server® 2008 Datacenter (x64) SP2
 Red Hat® Enterprise Linux Advanced Platform 5.5 or later (EM64T)
 SUSE® Linux Enterprise Server 11 for Intel64*⁴
 SUSE® Linux Enterprise Server 10 SP3 for Intel64*⁴
 VMware® ESX™
 VMware® ESXi™

*4 : To be supported

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<http://www.nec.com/express/>

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