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# NEC

The scalable enterprise server

# NEC Express5800/A1040e

## Key Features

- Enterprise-class 4-socket/4U rack server
- Support for the Intel® Xeon® Scalable Processor Family
- Easy manageability with integrated EXPRESSSCOPE® Engine SP3
- Operation-able in 40°C (104°F)

## Overview

NEC Express5800/A1040e is an enterprise-class quad-socket 4U rack server based on the Intel® Xeon® Scalable Processor Family. The server offers the highest level of performance, easy management and efficiency needed for compute-intensive and memory-hungry applications in physical and virtualized environments.

NEC Express5800/A1040e, armed with the NEC EXPRESSSCOPE® Engine SP3, a specially designed baseboard management controller, provides extensive remote management capabilities. The server offers high power efficiency as well, with industry leading intelligent power management with 80 PLUS® Platinum certified power supply enabling the high power efficiency operation.

## Features

### Exceptional Performance

NEC Express5800/A1040e is a scale-up server designed with massive resource pool to support compute-intensive and memory-hungry applications in physical and virtualized environment.
Powered by the Intel® Xeon® Scalable Processor Family, inheriting the supercomputer high performance technology, the NEC's enterprise server supports up to 4 processors / 112 cores / 224 threads, 6.0 terabyte of memory, and 13 PCIe 3.0 slots.

### High Efficiency

NEC Express5800/A1040e offers high power efficiency in 4U design. Industry-leading intelligent power management with 80 PLUS® Platinum certified power supply enable the high power efficiency operation. The server operates in temperatures as high as 40 degrees Celsius, which reduces the total power consumption by lowering cooling requirements.

### Easy Management

Influenced by mainframe architectures, NEC Express5800/A1040e is armed with the EXPRESSSCOPE® Engine SP3, a specially designed baseboard management controller. This provides extensive remote management capabilities, including ultra granular component health monitoring, remote controlling of the system, and BID (built-in-diagnostics), allowing for quick diagnostics of faulted components.

# Hardware Specifications

| MODEL | Express5800/A1040e |
|---|---|
| Form factor / height | 4U rack |
| Number of processors | 1 to 4 |
| Processors | Intel® Xeon® Processor Platinum<br>  8180M/8180 (2.50 GHz, 28C/56T, 38.50MB)<br>  8176M/8176 (2.10 GHz, 28C/56T, 38.50MB)<br>  8160 (2.10 GHz, 24C/48T, 33MB)<br>  8156 (3.60 GHz, 4C/8T, 16.50MB)<br>Intel® Xeon® Processor Gold<br>  6150 (2.70 GHz, 18C/36T, 24.75MB)<br>  6136 (3.00 GHz, 12C/24T, 24.75MB)<br>  6144 (3.50 GHz, 8C/16T, 24.75MB)<br>  5115 (2.40 GHz, 10C/20T, 13.75MB)<br>  5122 (3.60 GHz, 4C/8T, 16.50MB) |
| Memory type | DDR4-2666 RDIMM (8/16/32 GB), DDR4-2666 RDIMM-3DS (64/128 GB) |
| Memory slots | 48 |
| Maximum memory | 6 TB |
| Storage type | Hot plug 2.5-inch SAS HDD, Hot-plug 2.5-inch SAS SSD |
| Maximum internal drive bays | 8 |
| Maximum internal storage | HDD: 9.6 TB, SSD: 3.2 TB |
| Removable media | External drive (option) |
| Expansion slots | 8x PCI Express 3.0 (x16 lane, x16 socket) (Low Profile, 167.65 mm in length)<br>5x PCI Express 3.0 (x8 lane, x8 socket) (Low Profile, 167.65 mm in length) |
| Video (VRAM) | Embedded in management controller chip (8 MB) |
| Network | 1x Management LAN connector (1000 BASE-T / 100 BASE-TX / 10 BASE-T, RJ45, rear) |
| Power | Up to 4 80 PLUS® Platinum certified power supply / Redundancy and hot plug supported |
| Maximum power consumption (200V) | 2799 VA / 2743 Watt |
| Interface | 2 x USB 3.0 (1x front, 1x rear), 1 x USB 2.0 (internal), 1 x SUV (2x USB 2.0, 1x Serial, rear), 1 x Analog RGB |
| Dimensions (W x D x H) | 444.2 x 742.3 x 174.3 mm (4U rack height)<br>482.6 x 928.8 x 175.8 mm (including protruding objects and guide rails) |
| Maximum weight | 55.6 kg |
| Temperature and humidity conditions (non-condensing) | Operating: 10 to 40 °C / 50 to 104 °F, 20 to 80%<br>Non-operating: -10 to 55°C / 14 to 131 °F, 20 to 80% |
| Operating systems and virtualization software | Microsoft® Windows Server® 2016 Standard / Datacenter<br>Red Hat® Enterprise Linux® 7.4 or later (x86_64)<br>VMware® ESXi™ 6.5 Update1 |

Cat.No. E03-18070004E