The high-density rack server

NEC Express5800/R120f-1E

Key Features

- Support for the latest Intel® Xeon E5-2600 v3 product family
- Increased I/O throughput with DDR4-2133 memory and 12 Gbps SAS technology
- Agent-less management with improved EXPRESSCOPE Engine 3
- Support for high temperature ambient operation up to 40° C (104° F)

Overview

The Express5800/R120f-1E, a high-density dual-socket 1U rack server, offers outstanding performance, scalability, and simplified manageability. Supporting the new high-performance and energy efficient Intel Xeon E5-2600 v3 product family, high speed DDR4-2133, and a 12Gb/s SAS drives, the R120f-1E is ideal for the most demanding applications such as internet hosting services, virtualization solutions, and mid-size database servers.

Features

Perfect Fit for SMB and Service Providers

SMBs and service providers need the right-sized and cost-effective IT infrastructure to fit their current and future business needs. They also need solutions that reduce IT management, energy, and space costs. With up to two 12-core Xeon E5-2600 v3 processors, 16 DIMM slots, 8 hot-plug drive bays, integrated remote management capability, and NEC’s power management technologies, the R120f-1E delivers the optimal balance of features for SMBs and service providers.

Flexibility for Various Workloads

The Express5800/R120f-1E offers the enterprise-class flexibility required to fit various workloads. Selectable integrated NIC technology enables you to choose the appropriate LAN on Motherboard (LOM) based on your network environment. With two PCIe Gen3 slots and a dedicated RAID card slot, the R120f-1E offers flexible network connectivity and secure data protection.

Cost Savings Through Efficiency

The Express5800/R120f-1E offers solutions to reduce energy and IT management costs. Combining ambient temperature operation up to 40° C (104° F), industry-leading intelligent fan control technology, redundant power supplies with a cold-standby mode, and a high efficiency 80 PLUS® Titanium certified power supply, the R120f-1E minimizes energy costs. The remote KVM and monitoring features minimize time and effort of administrators by allowing them to operate servers and to monitor server status from a remote site regardless of the server’s power or operating system status.
# HARDWARE SPECIFICATIONS

## MODEL

<table>
<thead>
<tr>
<th>Feature</th>
<th>NEC Express5800/R120f-1E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form factor / height</td>
<td>1U Rack</td>
</tr>
<tr>
<td>Number of processors</td>
<td>1 to 2</td>
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</tbody>
</table>
| Processors | Intel® Xeon® Processor E5-2603 v3 (1.60 GHz/6-core/15 MB)  
Intel® Xeon® Processor E5-2620 v3 (2.40 GHz/6-core/15 MB)  
Intel® Xeon® Processor E5-2630 v3 (2.40 GHz/8-core/20 MB)  
Intel® Xeon® Processor E5-2630L v3 (1.80 GHz/8-core/20 MB)  
Intel® Xeon® Processor E5-2640 v3 (2.60 GHz/8-core/20 MB)  
Intel® Xeon® Processor E5-2650 v3 (2.30 GHz/10-core/25 MB)  
Intel® Xeon® Processor E5-2660L v3 (1.80 GHz/12-core/30 MB)  
Intel® Xeon® Processor E5-2660 v3 (2.60 GHz/10-core/25 MB) |
| Memory type | DDR4-2133 ECC RDIMM  
DDR4-2133 ECC LRDIMM |
| Memory slots | 16 |
| Maximum memory | 512 GB |
| 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 SATA SSD |
| Maximum internal drive bays | 8 |
| Maximum internal storage | 16 TB |
| Removable media | 1 bay for optical drive |
| Expansion slots | 2 PCIe x8 Gen 3 (1 optional)  
1 PCIe x8 Gen 3 for a RAID controller  
1 PCIe x8 Gen 3 for a flexible integrated NIC |
| Video (VRAM) | Integrated in the server management controller (32 MB) |
| Network | 1 1000BASE-T for management |
| Redundant power supply | Optional, hot plug |
| Redundant cooling fan | Standard, non-hot plug |
| Power supplies | 460 Watt, 800 Watt |
| Systems management | EXPRESSSCOPE Engine 3 |
| Interface | 2 VGA, 1 to 2 serial, 4 USB 3.0, 1 management LAN |
| Dimensions (W x D x H) and maximum weight | 439.8 x 720.0 x 43.4 mm / 17.3 x 28.3 x 1.7 in  
21 kg / 46.29 lbs. |
| Temperature and humidity conditions (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 systems and virtualization software | Microsoft® Windows Server® 2008 (x86) Standard / Enterprise  
Microsoft® Windows Server® 2008 R2 Standard / Enterprise  
Microsoft® Windows Server® 2012 Standard / Datacenter  
Microsoft® Windows Server® 2012 R2 Standard / Datacenter  
Red Hat® Enterprise Linux® 6  
VMware® ESXi™ 5  
VMware® ESXi™ 6 |