

The scalable compact rack server

# NEC Express5800/R120f-2M

POWERFUL AND ENERGY EFFICIENT SERVERS FOR THE MOST DEMANDING APPLICATIONS



**HIGH PERFORMANCE**

**SUPERIOR ENERGY EFFICIENCY**

**SIMPLIFIED MANAGEABILITY**

## Performance and Scalability

The Express5800/R120f-2M, a scalable dual-socket 2U rack server, provides outstanding performance, scalability, and flexibility. Powered by the high performance and energy efficient Intel® Xeon® processor E5-2600 v3 product family, high speed DDR4-2133 memory, and high performance 12Gb/s SAS drives, the R120f-2M is ideal for the most demanding applications such as virtualization solutions and large database servers.

## For Compute-intensive Environments

Combining up to two 18-core and 145 watt processors, 24 DIMM slots, and 16 hot-plug drive bays, eight PCIe 3.0 slots, the R120f-2M provides a massive resource pool for memory-, processor- and storage-intensive applications in mid-size to large enterprises.

## High Performance

- Supports the latest Intel® Xeon® E5-2600 v3 series 18-core processors for maximum energy efficiency and performance
- Supports up to 768 GB memory and 2133 MHz speeds, up to 28.8 TB drive capacity, eight PCI Gen3 slots, which is ideal for virtualization solutions as well as high performance computing

## Superior Energy Efficiency

- Industry-leading intelligent fan control to minimize cooling power with individually optimized fan speeds
- 80 PLUS® Titanium or Platinum certified power supply
- Selectable power supply units (460 Watt, 800 Watt, 1000 Watt) and cold-standby mode maximize power conversion efficiency for any size system

## Simplified Manageability

- Supports agent-less management capability with EXPRESSSCOPE Engine3 that offers extensive remote management and control regardless of the server status
- Equipped with EXPRESSBUILDER and ESMPro suite which enable easy installation, configuration, and remote monitoring

## HARDWARE SPECIFICATION

| MODEL  | Express5800/R120f-2M   |
|--|--|
| Form factor / height                                 | 2U Rack  |
| Number of processors                                 | 1 to 2   |
| Processors   | Intel® Xeon® Processor E5-2603 v3 (1.60 GHz/6-core/15 MB)<br>Intel® Xeon® Processor E5-2609 v3 (1.90 GHz/6-core/15 MB)<br>Intel® Xeon® Processor E5-2620 v3 (2.40 GHz/6-core/15 MB)<br>Intel® Xeon® Processor E5-2623 v3 (3 GHz/4-core/10 MB)<br>Intel® Xeon® Processor E5-2637 v3 (3.50 GHz/4-core/15 MB)<br>Intel® Xeon® Processor E5-2640 v3 (2.60 GHz/8-core/20 MB)<br>Intel® Xeon® Processor E5-2643 v3 (3.40 GHz/6-core/20 MB)<br>Intel® Xeon® Processor E5-2660 v3 (2.60 GHz/10-core/25 MB)<br>Intel® Xeon® Processor E5-2667 v3 (3.20 GHz/8-core/20 MB)<br>Intel® Xeon® Processor E5-2670 v3 (2.30 GHz/12-core/30 MB)<br>Intel® Xeon® Processor E5-2690 v3 (2.60 GHz /12-core/30 MB)<br>Intel® Xeon® Processor E5-2697 v3 (2.60 GHz/14-core/35 MB)<br>Intel® Xeon® Processor E5-2699 v3 (2.30 GHz/18-core/45 MB) |
| Memory type  | DDR4-2133 ECC RDIMM, DDR4-2133 ECC LRDIMM  |
| Memory slots   | 24   |
| Maximum memory                                       | 768 GB   |
| Storage type   | Hot plug 2.5-inch SAS and SATA HDD, Hot plug 2.5-inch SAS and SATA SSD   |
| Maximum internal drive bays                          | 8 to 16 with optional drive cage   |
| Maximum internal storage                             | 28.8 TB  |
| Removable media                                      | 1 bay for optical drive, 1 bay for internal tape drive   |
| Expansion slots                                      | 6 PCIe x8 Gen 3, 1 PCIe x8 Gen 3 for a RAID controller, 1 PCIe x8 Gen 3 for a flexible integrated NIC<br>* The slot mix changes by installing optional riser cards   |
| Video (VRAM)   | Integrated in the server management controller (32 MB)   |
| Network  | 1 100BASE-TX for management  |
| Redundant power supply                               | Optional, hot plug   |
| Redundant cooling fan                                | Standard, hot plug   |
| Power supplies                                       | 460 Watt, 800 Watt, 1000 Watt  |
| Systems management                                   | EXPRESSSCOPE Engine 3  |
| Interface  | 2 VGA, 1 to 2 serial, 4 USB 3.0, 2 USB 2.0 (plus 1 internal USB 2.0), 1 management LAN   |
| Dimensions (W x D x H) and maximum weight            | 17.6 x 28.9 x 3.4 in / 448.0 x 735.8 x 87.2 mm / 70.54 lbs. / 32 kg  |
| Temperature and humidity conditions (non-condensing) | Operating: 50 to 104 °F / 10 to 40 °C, 20 to 80%<br>Non-operating: 14 to 131 °F / -10 to 55 °C, 20 to 80%  |
| Operating systems and virtualization software        | Microsoft® Windows Server® 2008 Standard (x86)<br>Microsoft® Windows Server® 2008 Enterprise (x86)<br>Microsoft® Windows Server® 2008 R2 Standard<br>Microsoft® Windows Server® 2008 R2 Enterprise<br>Microsoft® Windows Server® 2012 Standard<br>Microsoft® Windows Server® 2012 Datacenter<br>Microsoft® Windows Server® 2012 R2 Standard<br>Microsoft® Windows Server® 2012 R2 Datacenter<br>Red Hat Enterprise Linux 6<br>VMware® ESX™: 5*<br>* Available in Q4 2014   |

Note : For Linux support, go to the NEC website at <http://www.nec.com/global/prod/express/linux/>, or contact our sales representative

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