



E-1800 R4

High-Reliability, Medium-Density Enterprise Computing Systems



UNICOM Engineering's E-1800 R4 enterprise computing system delivers the industry's best combination of high-performance and high-reliability for medium density applications. Able to support up to 2 Intel Xeon E5-2600 v3 Series Haswell Microarchitecture processors, up to 2 PCIe expansion cards and up to eight disk drives, this system provides a scalable 1U rack mount solution. This allows software vendors to customize the system solution to match medium-density storage and I/O requirements. Featuring integrated RAID, hot swap drives and redundant hot swap power supplies to ensure maximum reliability and uptime, customers can build a greater variety of enterprise security, communications, call center, video server, storage solutions and energy-efficient general purpose data center building blocks.

Features and Benefits

Built for Performance

- Supports up to two 18-core Intel Xeon E5-2600 v3 Series Haswell Microarchitecture processor series for maximum performance and density
- Supports up to 24 DDR4-2133 MT/s ECC DIMMs for faster application execution and greater overall stability
- Supports up to eight SAS 10K RPM HDD allow ideal customization to meet the storage needs of various applications

Built for High-Reliability Applications

- Enterprise class SAS & SSD drives and RAID ensure maximum reliability
- Hot swap hard drives and power supplies ensure low Mean-Time-To-Repair (MTTR)
- Redundant hot swap power supplies ensure high reliability in case of a failure

AT A GLANCE

- Up to two 6-to-18 Core Intel Xeon E5-2600 v3 Series Haswell processors
- Intel C612 chipset, Intel Ethernet Controller x540, Integrated Baseboard Management Controller (BMC)
- Up to 24 Dual In-Line Memory Modules (DIMMs) Double Data Rate 4 (DDR4) – 2133 MT/s
- Up to eight 2.5" SAS/SATA HDDs with embedded RAID technology for SATA RAID levels 0/1/10
- Up to 2 Full-Height / Half-Length (FH/HL) PCIe Gen3 slots
- One I/O expansion module slot
- One SAS RAID module slot
- Two 10 GbE ports
- Five USB 2.0 ports
- One Remote Management Port
- Two Video Ports
- One Serial Port
- Redundant 750W AC / DC power supply units



◀ 1U Four x 3.5" Hot Swap HDD Server Chassis

◀ 1U Eight x 2.5" Hot Swap HDD Server Chassis

E-1800 R4

technical specifications



E-1800 R4 Rear View

Form Factor

1U rack mount

Dimensions (WxHxD)

1.70" (43.2 mm) x 17.25" (439 mm)
x 30.25" (769 mm)

Processor Support

- Support for one or two Intel Xeon E5-2600 v3 series Haswell Processors
- LGA 2011-3, Socket R3
- Maximum supported Thermal Design Power (TDP) of up to 145W

Chipset

Intel C612 chipset

Memory

- 24 DIMMs slots – 3 DIMMs/Channel – 4 memory channels per processor
- Non-Volatile DIMM (NVDIMM) support
- DDR4-2133 MT/s ECC Registered

Storage Bay Options

- 4 x 3.5" SATA/SAS hot swap hard drive bays + optional optical drive support
- 8 x 2.5" SATA/SAS hot swap hard drive bays
- 2.5" Non-Volatile Memory Express (NVMe) SSD hot swap drive bays

Storage Options

- 2.5"/3.5" SAS/SATA HDD/SSD up to 12 Gb/s, 10K RPM
- 2.5" NVMe SSD
- PCIe NVMe SSD
- eUSB Solid State Device (SSD)
- SATA Disk-On-Module (DOM)

Riser Cards

Support for two riser card slots, max 2 PCIe cards:

- Riser #1: 1 x PCIe Gen3 x16 (x16)
- Riser #2: 1 x PCIe Gen3 x16 (x16)

PCIe Card Options

- 1 GbE, 10 GbE, 40 GbE NICs, Copper, Fiber
- Entry / Enterprise RAID, battery backup
- 16 Gb Fiber Channel

I/O Module Slot

- 1 Intel I/O Expansion Module slot to support an optional I/O module
- 1 GbE, 10 GbE, 40 GbE NIC Modules

RAID Module Slot

- 1 RAID module slot to support an optional SAS RAID module
- Entry / Enterprise, 4 or 8-Ports internal, 12G, support backup unit

Integrated RAID Support

- Intel Embedded Server RAID Technology with host-based SW RAID levels 0/1/10;
- Optional SW RAID 5 with activation key

Integrated LAN

Embedded Intel Ethernet Controller x540, supporting 10 GbE

External I/O

- Two Video Ports (DB-15) - 1 rear + 1 front
- Two 10 GbE NIC ports (RJ45) - rear
- Five USB 2.0/3.0 Ports - 3 rear + 2 front
- One Serial Port (RJ45) - rear
- One Remote Management Port (RJ45) - rear

Server Management

- Integrated Baseboard Management Controller (BMC), IPMI 2.0 Compliant
- Intel Remote Management Module 4 Management NIC for dedicated network interface
- Optional Intel Remote Management Module 4 Lite for Remote Keyboard, Video, Mouse (KVM) support

Security

Optional Intel Trusted Platform Module (TPM)

Control Panel

- System ID Button with integrated LED
- Non-Maskable Interrupt (NMI) Button
- Network Activity LEDs
- System Cold Reset Button
- System Status LED

System Fans

- Six 40mm dual rotor system fans
- One power supply fan for each power supply module

Power Supply Options

- Up to two hot swap, redundant capable power supplies
- 750W AC Platinum or 750W DC Gold

OS Support

- Windows 2008 / 2012
- Red Hat Enterprise Linux 6.5
- SuSE Enterprise Linux 11

Regulatory Approval

- National Recognized Testing Laboratory (NRTL), Conforming European (CE) Mark / Safety, Certification Body (CB)
- Federal Communications Commission (FCC) Parts 15 Class A, Voluntary Control Council for Interference (VCCI)
- Restriction of the use of certain Hazardous Substances (RoHS) Compliant

Environment

- Operating temperature: 10°C to 35°C (50 to 95°F)
- Non-operating temperature: -40°C to 70°C (-40 to 158°F)
- Non-operating humidity: 90%, non-condensing at 28°C (82°F)

Warranty

- Standard two-year limited warranty, return to factory.
- Optional extended warranty and advance replacement service.

NOTE: These specifications should be viewed as preliminary and final specifications may vary.

Support and Maintenance Services

UNICOM Engineering offers a variety of support and maintenance service programs to ensure high availability, rapid response, effective troubleshooting, fast parts replacement and 24-hour support. Please visit www.unicomengineering.com/supportservices for more information.



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