E-1800 R5

High-Reliability, Medium-Density Enterprise Computing Systems

UNICOM Engineering's E-1800 R5 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 Skylake Microarchitecture scalable processors, up to 2 PCIe expansion cards and up to eight hot swap 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 6-to-20-core Intel Xeon Skylake Microarchitecture scalable processor for maximum performance and density
- Supports up to 24 DDR4-2666 MT/s ECC DIMMs for faster application execution and greater overall stability
- Supports up to eight SAS/SATA hot swap drives 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 8-to-20 Core Intel Xeon Skylake scalable processors
- Intel C624 chipset
- Up to 24 DIMM slots, 12 per Processor
- Up to 8 SAS/SATA/NVMe drives with embedded RAID technology
- Two PCIe Gen3 slots
- One OCP expansion module slot
- One SAS RAID module slot
- Two RJ45 10GbE LAN ports
- Five external USB 3.0 ports
- Two external DB-15 video port
- One external RJ-45 serial port
- Integrated Baseboard Management Controller (BMC) with dedicated RJ45 remote management port
- Redundant 1100W AC / 750W DC power supply units

E-1800 R5
technical specifications

E-1800 R5 Rear View

Form Factor
1U rack mount

Dimensions (HxWxD)
1.70" (43.2mm) x 17.25" (439mm)
x 28.0" (712mm)

Processor Support
- Support for one or two Intel Xeon 6100 series Skylake Processors
- LGA3647-0, Socket P
- Maximum supported Thermal Design Power (TDP) of up to 150W

Chipset
Intel C624 chipset

Memory
- 24 DIMMs slots, 12 DIMM slots per processor
- 6 memory channels per processor, 2 DIMMs per channel per processor
- DDR4-2666 MT/s ECC Registered
- Non-Volatile DIMM (NVDIMM) support

Storage Bay Options
- 4 x 3.5" SAS/SATA hot swap drive bays
- 8 x 2.5" SAS/SATA/NVMe hot swap drive bays
- 2 x M.2 SSD connectors

Storage Options
- 2.5"/3.5" SAS/SATA HDD up to 12 Gb/s, 7.2K RPM
- 2.5" SATA SSD, 6 Gb/s
- 2.5" NVMe SSD, U2
- M.2 SATA/NVMe SSD

Integrated RAID Support
- On-Board SATA Software RAID levels 0/1/10;
- Optional SATA Software RAID 5 with activation key
- Optional Intel Virtual RAID on CPU (VROC) for NVMe with activation key

RAID Module Slot
- 1 Intel RAID module slot to support an optional SAS RAID module
- Entry / Enterprise, Tri-Mode, 8/4-ports internal, 12G SAS, 6G SATA, NMVE, battery backup

Integrated LAN
2 RJ45 10 GbE LAN ports

OCP Module Slot
- 1 Intel OCP Expansion Module slot to support an optional module
- 1 GbE, 10 GbE NICs, Copper, Fiber

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 Cards and Add-in Options
- 1 GbE, 10 GbE NICs, Copper, Fiber
- NVMe SSD
- Entry / Enterprise RAID Controllers
- 16 Gb Fibre Channel
- PCIe Retimer / Switch
- SAS Expander, SAS3.0, 12Gb/s, internal / external ports

External I/O
- 2 DB-15 Video ports (DB-15) – 1 rear, 1 front
- 2 10GbE NIC ports (RJ45) – rear
- 5 USB 3.0 ports – 3 rear, 2 front
- 1 RJ-45 serial port – rear
- 1 Dedicated RJ-45 server management NIC port – 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)

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

Front Control Panel
- System ID button with integrated LED
- Non-maskable Interrupt (NMI) Button
- Network activity LEDs
- System cold reset button
- System status LED
- Power / sleep button with integrated LED

System Fans
- 6 hot swap system fans
- 1 power supply fan for each power supply module

Power Supply Options
- Up to 2 hot swap, redundant capable power supply
- 1100W AC Platinum or 750W DC Gold

OS Support
- Microsoft Windows Server 2016 / 2012 R2
- Red Hat Enterprise Linux 7.3 / 7.2 / 7.1
- SuSE Enterprise Linux 12

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), Australia & New Zealand
- Regulatory Compliance Mark (RCM)
- 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.

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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