E-2900 R4

High-Reliability, High-Density Enterprise Computing Systems

UNICOM Engineering's E-2900 R4 enterprise computing system delivers the industry's best combination of high-performance and high-reliability for high density applications. Able to support up to 2 Intel Xeon E5-2600 v4 Series Haswell Microarchitecture processors, up to 8 PCIe expansion cards and up to 26 disk drives, this system provides a scalable 2U rack mount solution. This allows software vendors to customize the system solution to match high-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 22-core Intel Xeon E5-2600 v4 Series Haswell Microarchitecture processor series for maximum performance and density
- Supports up to 26 DDR4-2400 MT/s ECC DIMMs for faster application execution and greater overall stability
- Supports up to 24 SAS 10K RPM HDD allow ideal customization to meet the storage needs of various applications

Built for High-Reliability Applications

- Enterprise class HDD & 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

2U Eight or Twelve x 3.5" Hot Swap HDD Server Chassis

2U Eight, Sixteen or Twenty-four x 2.5" Hot Swap HDD Server Chassis

AT A GLANCE

- Up to two 4-to-22 Core Intel Xeon E5-2600 v4 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) – 2400 MT/s
- Up to twenty six 2.5" SAS/SATA HDDs/SSDs with embedded RAID technology for SATA RAID levels 0/1/10
- 4 full-Height/Full-Length (FH/FL), 2 full-Height/Half-Length (FH/HL), 2 low profile PCIe Gen3 slots
- One I/O expansion module slot
- One SAS RAID module slot
- Two 10 GbE ports
- Three to Five USB 2.0 ports
- One Remote Management Port
- One to Two Video Ports
- One Serial Port
- Redundant 1100W AC/750W DC power supply units

E-2900 R4

technical specifications

E-2900 R4 Rear View

Form Factor
2U rack mount

Dimensions (WxHxD)
3.5" (89 mm) x 17.25" (439 mm)
x 31.25" (793.8 mm)

Processor Support
- Support for one or two Intel Xeon E5-2600 v4 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
- DDR4-2400 MT/s ECC Registered

Storage Bay Options
- 8 x 3.5" SATA/SAS hot swap hard drive bays + optional optical drive support
- 12 x 3.5" SATA/SAS hot swap hard drive bays
- 24 x 2.5" SATA/SAS hot swap hard drive bays
- 2 x 2.5" SATA SSD back of chassis hot swap 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)
- SAS Expander, 12G, 36 internal ports
- SAS Expander, 12G, 28 internal port + 8 external ports

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

Riser Cards
Support for three riser card slots, max 8 PCIe cards:
- Riser #1: 2 x PCIe Gen3 x8 (x16) + 1 x PCIe Gen3 x8 (x8)
- Riser #2: 2 x PCIe Gen3 x8 (x16) + 1 x PCIe Gen3 x8 (x8)
- Riser #3: 1 x PCIe Gen3 x16 (x16) + 1 x PCIe Gen3 x8 (x8)

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, 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 (JR45) - rear
- One Remote Management Port (RJ45) – rear
  *Front I/O Ports only available on the 8 x 3.5" Chassis

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
- Optional LCD Control Panel

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
- 1100W 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.

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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