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 v3 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 18-core Intel Xeon E5-2600 v3 Series Haswell Microarchitecture processor series for maximum performance and density
- Supports up to 26 DDR4-2133 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

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 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

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

◀ 2U Twenty-four x 2.5" Hot Swap HDD Server Chassis

UNICOM® Engineering, Inc.
A Division of UNICOM Global

UNICOM Engineering Inc, a division of UNICOM® Global, is a leading provider of server-based application platforms and lifecycle support services for software developers and OEMs worldwide. Through its technology expertise and comprehensive suite of global services, UNICOM Engineering is redefining application deployment solutions providing customers with a sustainable competitive advantage.

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 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
- 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

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.

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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