

E-2900 R6 (12x3.5")

High-Reliability, High-Density Enterprise Computing Systems



UNICOM Engineering's next generation E-Series platforms are built on 3rd Gen Intel® Xeon® Scalable processors with support for the latest Intel Optane persistent memory, network adapters, and storage. UNICOM Engineering's E-2900 R6 offers the performance and reliability of the 1U E-1800 R6 platforms but adds expansion capabilities via more I/O and accelerators, up to 9 expansion cards, and 12 hot swap drives in a scalable 2U rackmount solution. Multiple configurations allow software and solution providers to customize the system solution to match high-density storage and I/O requirements while considering utilization requirements and overall value. Optimized for a variety of cloud, AI, and HPC workloads; customers can now build a greater variety of enterprise security, communications, video, and storage solutions as well as energy-efficient general purpose data center building blocks.

Features and Benefits

Built for Performance

- Supports up to two Intel Ice Lake-SP Microarchitecture processor for maximum performance and density
- Supports up to 32 DDR4-3200 MT/s ECC DIMMs across 16 channels for faster application execution and greater overall stability
- Supports up to 16 Intel Optane DC Persistent Memory Modules of up to 512GB each for even greater application performance
- Supports any combination between 12 x 3.5" drive bays (8 x dual-mode SATA/SAS, 4 x tri-mode SATA/SAS/NVMe) allow ideal customization to meet the storage needs of various applications
- PCIe Gen4 provides support for the latest generation of network, accelerator, and RAID controllers

Built for High-Reliability Applications

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

Gain a Competitive Advantage

Many times the best way to deliver a truly competitive solution is to leverage the products, skills, and resources of proven partners. Building on innovative Intel technology, UNICOM Engineering's design, integration, logistics and support expertise helps customers streamline software application deployment and shorten time to revenue. Our strong foundation of engineering expertise, process-driven manufacturing, technology partner relationships, and an unrelenting commitment to quality has made UNICOM Engineering one of the most trusted deployment partners in the industry.

E-2900 R6 (12x3.5")

technical specifications



E-2900 R6 Rear View

Form Factor

2U rack mount

Dimensions (HxWxD)

3.42" (87mm) x 17.56" (446mm) x 33.5" (851mm)

Processor Support

- Support for one or two Intel Xeon Ice Lake-SP CPUs
- Dual SocketP-4 LGA4189
- Maximum supported Thermal Design Power (TDP) of up to 270W

Chipset

Intel C621A chipset

Memory

- 32 DIMMs slots, 16 DIMM slots per processor
- 8 memory channels per processor, 2 DIMMs per channel per processor
- DDR4-3200 MT/s ECC Registered
- Intel Optane Persistence Memory Series 200

Storage Bay Options

- 12 SAS/SATA drive bays (supports up to 4 NVMe drives)
- 2 x M.2 NVMe/SATA connectors
- Optional internal fix mount 2.5" SATA SSD drive support

Storage Options

- 3.5" SAS/SATA HDD, 12 Gb/s/6 Gb/s
- 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 0/1/5/10
- Optional Intel Virtual RAID on CPU (VROC) for NVMe with activation key

OCP Module Slot

- 1 Intel OCP 3.0 Expansion Module slot to support an optional module
- 10 GbE SFP+, 25 GbE SFP28, 50 GbE SFP28, 100 GbE QSFP28 NICs,

Riser Cards

- Support for 3 riser card slots, Max 8 PCIe add-in cards
- Riser Slot #1 optional cards:
 - 1 x PCIe Gen4 x16 @ x16 lanes FH/FL, 1 x PCIe Gen4 x16 @ x8 lanes FH/FL, 1 x PCIe Gen4 x8 @ x8 lanes
 - 1 x PCIe Gen4 x16 @ x16 lanes FH/FL double-width, 1 x PCIe Gen4 x16 @ x16 lanes FH/HL
- Riser Slot #2:
 - 1 x PCIe Gen4 x16 @ x16 lanes FH/FL, 1 x PCIe Gen4 x16 @ x8 lanes FH/FL, 1 x PCIe Gen4 x8 @ x8 lanes
 - 1 x PCIe Gen4 x16 @ x16 lanes FH/FL double-width, 1 x PCIe Gen4 x16 @ x16 lanes FH/HL
- Riser Slot #3: 2 x PCIe Gen4 x16 @ x8 lanes LP/HL

PCIe Cards and Add-in Options

- 1 GbE, 10 GbE, 25 GbE, 50 GbE, 100 GbE NICs, copper, fiber
- Entry / Enterprise RAID Controllers
- 16 Gb fibre channel

External I/O

- 1 Video ports (DB-15) – 1 rear
- 4 USB 3.0 ports – 3 rear, 1 front
- 1 USB 2.0 port – front
- 1 RJ-45 serial port – rear
- 1 Dedicated RJ-45 server management port – rear

Server Management

- Integrated Baseboard Management Controller (BMC), IPMI 2.0 Compliant
- Intel Remote Management Module 4 Management NIC for dedicated network interface

Security

Optional Intel Trusted Platform Module (TPM)

Front Control Panel

- System ID button with integrated LED
- Non-Maskable Interrupt (NMI) Button
- Drive activity LEDs
- System coldreset 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
- 1300W AC Titanium, 1600W AC Titanium, 2100W AC Platinum

OS Support

- Microsoft Windows Server 2019 / 2016
- Red Hat Enterprise Linux 8.2 / 7.8
- SuSE Enterprise Linux 15 sp2
- Ubuntu Linux 20.04-LTS
- VMWare ESXi 7.0 / 6.7 Update 3
- CentOS 8.2

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.


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