

## Relion 1900



### Power Efficient Intel-based HPC Server Designed for Nextgeneration Datacenters

The Relion 1900 is based on Intel's Xeon E5-2600 v3 and v4 processors. Utilizing the Intel C612 (Wellsburg) series chipset, it is a versatile and feature-rich server that is well suited for efficient performance and HPC workstations. RAS (Reliability, Availability, Serviceability) features like RAID options, IPMI 2.0 support and 'KVM over IP' functionality make this platform a good fit for mission critical workloads. With these RAS features, up to fourteen cores per processor and up to 1.5TB of DDR4-2400MHz RAM the system is also an excellent choice as a host platform in virtualization environments.

Basic configuration options are available for scale out deployments, making the R1900 a great server for those looking for a balance between performance and power efficiency. With the ability to support up to two PCIe x16 Gen3 low profile cards and a single PCIe x8 Gen3 universal low-profile I/O card, for RAID/network/ethernet and fiber, the Relion 1900 also enables HPC users to optimize their system(s) for specific application requirements and needs.

Penguin Computing specializes in delivering turn-key High Performance Computing clusters and Data Center systems that include software solutions for cluster and workload management, high performance interconnects, storage systems and a power delivery infrastructure. All components are integrated in rack enclosures, configured for optimal performance by Penguin's HPC experts and ready to use.

Penguin systems are tested for compatibility with all major commercial and freely available Linux distributions and are available with Red Hat Enterprise Linux, SuSE Linux Enterprise Server or CentOS pre-installed.

OPEN SOLUTIONS

COMPUTE

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For information, please contact: [sales@penguincomputing.com](mailto:sales@penguincomputing.com)

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## Relion 1900

### Key Features

- 1U Form Factor
- Dual Socket Intel® E5-2600 v3/v4 Series
- Up to 1.5TB DDR4-2400MHz (24x DIMMs)
- Intel® C612 Chipset (Wellsburg)
- 2x GigE/RJ45 (Intel® I350)
- 1x Dedicated BMC (ASPEED AST2400)
- 3x LP PCIe Gen3 Slots
  - 1x PCIe x8 Universal IO Cards
  - 2x PCIe x16 Gen3 LP
- 4x 3.5" or 8x 2.5" SAS/SATA HDDs
  - (Or 8+2) 2.5" SAS/SATA + 2.5" NVMe
- Single/Redundant 800W 80+ Platinum (100-220 VAC)

### Integrated I/O and External Ports

- Dual GbE Integrated LAN with two Intel I350 RJ45 ports
- Integrated BMC with IPMI 2.0 and 'KVM over IP' support through

- dedicated RJ45 port
- Integrated Aspeed® AST2400

### Expansion Slots

- 3x LP PCIe Gen3 Slots
  - 2x PCIe x16/1x PCIe x8

### Universal IO Cards

- Dual 10GbE (SFP+)
- Dual IB FDR (QSFP+)
- LSI SAS2208. RAID 0/1/5/6/10/50/60

### Dimensions

- 1.69" x 16.92" x 27.95"(H x W x D)

### Other 19" EIA Products:



**Relion 2900**

2U Form Factor  
Dual Socket Intel® E5-2600 v3/v4 Series  
Up to 1.5TB DDR4-2400MHz (24x DIMMs)  
Intel® C612 Chipset (Wellsburg)  
2x GigE/RJ45 (Intel® I350)  
1x Dedicated BMC (ASPEED AST2400)  
6x FHFL PCIe Gen3 Slots  
2x PCIe x16/4x PCIe x8  
2x FHFL PCIe Gen3 Slots  
1x PCIe x16/1x PCIe x8  
1x PCIe x8 Gen3 Universal IO Cards  
12x 3.5" or 24x 2.5" SAS/SATA HDDs  
Single/Redundant 800W 80Plus PSU



**Relion 2940**

2U 4 Node Form Factor  
Dual Socket Intel® E5-2600 v3/v4 Series  
Up to 1TB DDR4-2400MHz (16x DIMMs)  
Intel® C610 Chipset (Wellsburg)  
2x GigE/RJ45 (Intel® I350)  
1x Dedicated BMC (ASPEED AST2400)  
1x PCIe x16 Gen3 Slot  
1x PCIe x8 PCIe Mezzanine Slot  
16x 2.5" SAS/SATA HDDs  
Single/Redundant 1600W 80Plus PSU



**Relion Phi 2040e**

2U 4 Node Form Factor  
Single Socket Intel® Xeon Phi 7200/7200-F  
Up to 384GB DDR4-2400MHz (6x DIMMs)  
Intel® C610 Chipset (Wellsburg)  
2x GigE/RJ45 (Intel® I350)  
1x Dedicated BMC (Pilot3)  
1x PCIe x16 Gen3 (Used for Omni-Path)  
1x PCIe x16 Gen3 (PCIe x4 in 7200-F SKU)  
16x 2.5" HDDs  
Dual/Redundant 2130W 80Plus PSU



**Relion 1904GT**

1U Form Factor  
Dual Socket Intel® E5-2600 v3/v4 Series  
Up to 1TB DDR4-2400MHz (16x DIMMs)  
Intel® C612 Chipset (Wellsburg)  
2x GigE/RJ45 (Intel® I350)  
4x double-width GPU support  
2x PCIe x8 (in x16 slot) LP card  
2x 2.5" SAS/SATA/SSD HDDs  
Supports NVMe  
Redundant 2000W 80Plus PSU

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