



## Relion 1930e

# World's densest x86 Supercomputer built for OCP

### ► OPEN SOLUTIONS

COMPUTE

STORAGE

NETWORK

CLOUD



Penguin Computing's Tundra OpenHPC platform delivers density, performance and serviceability for demanding customers. Tundra OpenHPC systems are optimized for CAPEX and OPEX in medium to large scale Data Centers.

Powered by Intel's Xeon E5-2600 v3 and v4 processors, along with multiple high performance / low latency fabric options, the Relion 1930e is designed for High Performance Computing environments.

Based on Open Compute (OCP) Open Rack specification, Tundra OpenHPC reduces infrastructure costs over multiple technology generations. Due to the OCP Open Rack infrastructure's efficient use of available space Penguin Tundra solutions can pack 3 Tundra Relion 1930e nodes per each horizontal rack unit. This allows up to 96 nodes per rack with the associated shared power infrastructure and fabric/networking switches.

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.

#### FOR INFORMATION, PLEASE CONTACT:

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## Key Features

- OCP OpenRack form factor, 1 OU, 3 Servers per Shelf
- Dual Socket Intel® E5-2600 v3/v4 Series
- Up to 1TB DDR4-2400MHz (16x DIMMs)
- Intel® C612 Chipset
- 2x GbE/RJ45 LOM
- 1x Dedicated BMC
- 1x PCIe x16 Gen3 Slot
- 1x PCIe x8 PCIe Mezzanine Slot
- 1x 2.5" Fixed SATA SSD
- Optional 1x FDR LOM
- Supports Asetek Direct-to-Chip Cooling

## Dimensions

- 1.65" x 6.93" x 31.32" (H x W x D)
- Weight: 12.5 lbs.



## OTHER TUNDRA ES PRODUCTS:



### Relion X1904GT

- 1 OpenU Form Factor
- Dual Intel® Xeon® E5-2600 v4 processors
- Up to 1TB DDR4-2400MHz (16x DIMMs)
- Intel® C612 Chipset
- 2x PCIe 3.0 (Speed depends on topology)
- 4x 2.5" SATA SSD
- Dual GbE LOM
- Dedicated BMC Port
- Support Asetek Direct-to-Chip Cooling (CPUs and GPUs)
- Supports 4x GPGPU Nvidia Tesla P100, P100-SXM2, M40 and P40
- Flexible PCIe Topology

### Relion Phi X1030e

- OCP OpenRack Form Factor
- 1OU, 3 Servers per Shelf
- Single Socket Intel® Xeon Phi™ 7200 Series, including -F (OmniPath)
- Up to 384GB DDR4-2400MHz (6x DIMMs)
- Intel® C610 Chipset
- Shared BMC
- 2x PCIe Gen3 x16 slots
- Up to 2x 2.5" SSD/U.2 NVMe
- Up to 8x M.2 NVMe Storage
- 2x 1GbE ports
- 1x mSATA (Onboard)
- Supports Intel® Omni-Path via KNL-F Processor or PCIe card.

### Relion 1930g

- OCP OpenRack form factor, 1 OU, 3 Servers per Shelf
- Dual Socket Intel® Xeon E5-2600 v3 and v4 series
- Up to 384GB DDR4-2400MHz (6x DIMMs)
- Intel® C610 Chipset (Wellsburg)
- 2x GigE/RJ45 (Intel® I Springville)
- 1x Dedicated BMC
- 1x PCIe x16 Gen3
- 1x PCIe x8 Mezzanine Card
- Up to 2x 2.5" SATA SSDs
- Up to 4x M.2 NVMe (via PCIe Mezz)

### Valkre 1030c

- OCP OpenRack form factor, 1 OU, 3 Servers per Shelf
- Dual Cavium ThunderX Processors based on ARM64 architecture
- Up to 1TB DDR4-2133MHz (16x DIMMs)
- 1x Dedicated BMC
- 2x 40GB Ethernet interfaces
- 2x PCIe 3.0 x16 LP card
- 1x 2.5" SATA/SSD HDDs

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