

Valkre 1030c

State-of-the-art Open Rack server optimized for performance and energy efficiency

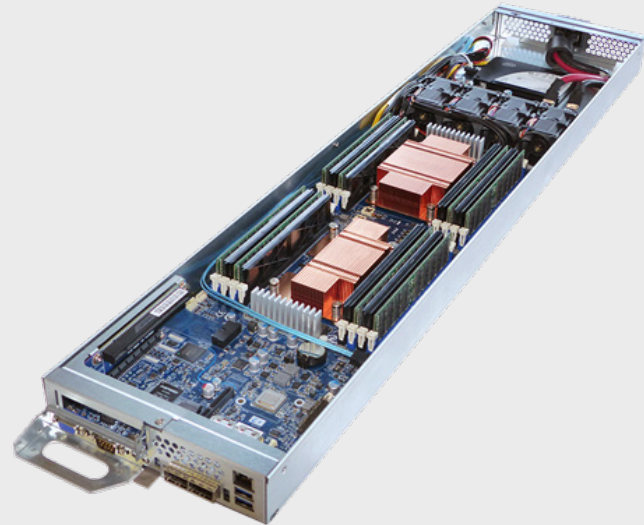
Penguin Computing's Tundra OpenHPC platform delivers density, performance and serviceability for demanding customers. Tundra OpenHPC systems are designed for optimized CAPEX and OPEX in medium to large scale Data Centers.

Tundra Valkre 1030c is based on 64-bit ARM processors from Cavium. Cavium ThunderX architecture combines an up to 48-core processor, high performance 40 Gigabit Ethernet fabric and array of offloading engines for networking, storage and security applications.

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 1030 Phi 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.



Highlights

- 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 Management Port
- Built-in 2x 40Gb Ethernet interfaces
- 1x PCIe 3.0 x16 Low Profile Expansion Slot
- 1x 2.5" SATA SSD/HDD

Tundra Architecture

- 2x Independent Power Zones, each supplying 18kW with N+3 Redundancy
- Total Open Rack supports 36kW with (N+3 Redundancy)
- Disaggregate Power Supply, 3-Phase, wide range (208-277V) input providing 12V DC power
- OpenHPC™ Compute Server Shelf supports up to 3x Compute Servers
- OpenHPC™ Shelf is 1 OU height; (Open U); 1 OU = 48 mm (1.889")
- Designed in accordance to OCP Open Rack Specification
- Allows for reduce infrastructure cost during technology generation transition



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