



QUAD Opteron Server

Sovereign QUAD Opteron Server

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The Sovereign Quad Opteron™ server leverages the high performance architecture of the AMD Opteron™ processors and the AMD-8100™ series chipset to create a scalable 4-way 4U platform with three distinct advantages.

- AMD64 architecture - allows for 32-bit x86 applications to run natively at full speed with a low impact upgrade path to 64-bit performance.
- Integrated memory controller - offers dedicated memory bandwidth to each CPU. Eliminates the need to share a common front-side bus with I/O and memory accesses like some other CPU architectures.
- HyperTransport™ Technology - a next generation chip interconnect technology that reduces I/O bottlenecks and allows for "glueless" CPU interconnect.

The AMD Opteron™ processor integrates an AMD64 core 128-bit memory controller, and three 16-bit HyperTransport™ links into a 940-pin package. Each CPU has dedicated banks of memory to enable low-latency access. The CPUs are interconnected with coherent HyperTransport™ links that are designed to ensure cache coherency.

All peripheral and I/O busses connect to the CPU's HyperTransport™ links. Each AMD-8131™ PCI-X Tunnel provides dual PCI-X 1.0 bridges with up to five bus masters per bridge.

The AMD-8111™ I/O Hub supports the lower bandwidth peripherals and buses including an EIDE bus, PCI version 2.2 bus, and USB 1.1 host bus. The LPC bus interface connects peripherals, including the Super I/O, BIOS and baseboard management controller (BMC).

These also feature dual ultra320 SCSI channels with both an internal connector for the SCSI backplane and an external connector routed to the back of the chassis. The LSI Logic controller features integrated ARM microprocessors to offload SCSI I/O functions from the host CPU. SCSI bandwidth is up to 320MB/s per channel.

The Broadcom BCM5704 controller provides dual copper gigabit Ethernet support to the back of the chassis. These ports are backwards compatible with 10/100Mb Ethernet.

The embedded baseboard management controller provides management of the system board including configuration, addressing, asset information, hardware health monitoring and system event log. Advanced features enable remote management of the host system including fault recovery and BMC firmware updating. All functions are designed to be compatible with the Intelligent Platform Management Interface (IPMI) version 1.5 specification.



4U Sovereign QUAD Opteron Chassis



Visit www.cybernex.co.uk for more information.



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Specifications

	Sovereign QUAD Opteron Server
Processor	QUAD AMD Opteron™ processors up to 848
Chipset	AMD-8131™ HyperTransport™ PCI-X Tunnel (2 Devices) AMD-8111™ HyperTransport™ I/O Hub
Memory	Sixteen 184-pin DDR DIMM sockets, supports up to 32GB of ECC registered DDR333
Graphics	8MB PCI ATi RAGE XL
Expansion Slots	2 x PCI-X, 133MHz slots (hot plug) 3 x PCI 64-bit, 66MHz slots
Optical Storage	DVD-ROM Optical Drive
Hard Drive Controller	LSI Logic LSI53C1030 Ultra-320 SCSI controller with one internal and one external connector
Storage	Supports up to four one-inch Ultra 320 SCSI drives
Network Controller	2 x Broadcom 10/100/1000 Ethernet, 1 x Broadcom 10/100 Ethernet
Chassis Dimensions (W x D x H)	483mm x 648mm x 177mm
Power Supply	500W 2+1 redundant with hot-swap
Management Controller	Q-Logic Zircon UL baseboard management controller (BMC) remote server management supporting IPMI v1.5 with dedicated Ethernet port.



Visit www.cybernex.co.uk for more information.

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