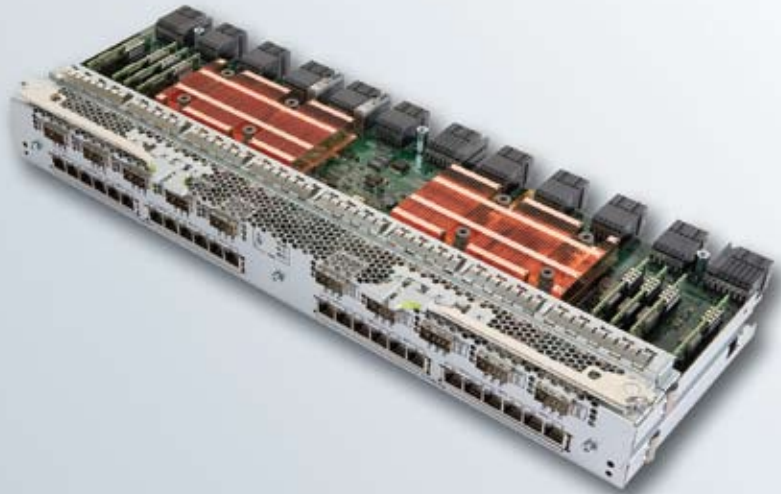


Sun Blade™ 6048 InfiniBand QDR Switched Network Express Module

Unparalleled scalability, resiliency, and throughput in a cost-effective form factor



Highlights

- The industry's only chassis-integrated leaf switch supporting quad data rate (QDR) InfiniBand (IB) and providing passthru Gigabit Ethernet (GbE) connection to each server
- Ideal for high-performance compute clusters, clustered databases, IB grid architectures, and storage solutions
- Unprecedented scalability — enables support for over 5,184 node clusters, providing industry-leading scalability critical to petascale deployments
- Compact design to maximize chassis utilization
- Increased resiliency to enable connectivity of up to eight ultradense QDR switches
- 3:1 reduction in cabling to simplify cable management
- Designed to support varied topologies including “Fat Tree” and mesh topologies



Ideal for high-performance computing (HPC), the Sun™ Blade™ 6048 QDR IB Switched Network Express Module (NEM) offers 30 ports of 4x QDR and 24 ports of GbE — for unparalleled scalability, resiliency, and throughput in a highly cost-effective form factor.

The NEM minimizes cabling as well as costs while easing management, enhancing reliability, and speeding time to solutions.

The NEM is part of the Sun Blade 6048 modular system, offering flexibility, performance, and superior investment protection to help improve HPC datacenters' efficiency and utilization. With unrivaled server density in a 42U footprint, the system leverages the performance, flexibility, and scalability of Sun's x64 rackmount servers — alongside the easy serviceability and manageability of Sun's blade servers. It adds to the industry's highest-performance blade architecture, capable of 9 TFLOPS per chassis while using 20% less power and up to one-third the space of rival rackmount servers. When combined with the Sun Blade 6048 IB QDR Switched NEM, the Sun Blade 6048 modular system provides 30 ports of QDR connectivity and 24 ports of GbE — driving supercomputing to unprecedented levels of scale and versatility while eliminating I/O bottlenecks.

The consolidation and power efficiency of the Sun Blade 6048 IB QDR Switched NEM are only two ways it boosts the Sun Blade 6048 modular system. The NEM also helps the system grow to meet future needs, offering investment protection as well as an innovative solution that can scale up from enterprise clustering to HPC with 24 ports of GbE as well as support for up to four NEMs per chassis, delivering 1,536 Gb/sec of throughput per NEM.

Sun also provides valuable services that can support the NEM — and your infrastructure — throughout its complete lifecycle. This includes the Sun™ Customer Ready program, which can help with design validation, integration, and testing of Sun and third-party components — offering integrated systems that leave the Sun factory built to your specifications and ready to deploy.

Sun Blade 6048 InfiniBand QDR Switched Network Express Module Specifications

Form factor

Occupies two NEM slots in each shelf of the Sun Blade 6048 modular system, with up to four NEMs supported per chassis

Supported platforms

Sun Blade 6048 modular system

Compatibility

IB specifications: IBTA v1.2

Fabric management

Host-based subnet manager

Connections

- Ten 12x IB CXP connectors carry three 4x connections each, for a total of 30 individual 4x QDR connections, each with active cable circuitry support as well as local and remote cable present detection and cable serial number detection
- 24 GbE RJ-45 connections, supporting cables up to 60m in length

Throughput

Single data rate 8 Gb/sec per server, double data rate 16 Gb/sec per server, quad data rate 32 Gb/sec per server — aggregate throughput 1,536 Gb/sec

Dimensions and weight

Height: 155mm (6.1 in.)
Width: 509mm (20 in.)
Depth: 108.6mm (4.28 in.)
Weight: 5.73 kg (12.7 lbs.)

Operating environment

Voltage: 12 V
Maximum power: 240 W
Temperature: 15° to 32° C (ASHRAE Environmental Class 1)
Altitude: 3,000m (derate 1° C/300m above 900m)
Humidity: 20–80%

Regulatory compliance

The regulatory compliance certifications of the Sun Blade 6048 modular system cover the Sun™ Blade™ 6048 InfiniBand QDR Switched Network Express Module as an installed component.

Learn More

To learn more about the Sun Blade 6048 InfiniBand QDR Switched Network Express Module, go to: sun.com/products/networking/infiniband.jsp.

To learn more about the Sun Blade 6048 chassis, go to: sun.com/servers/blades/6048chassis.