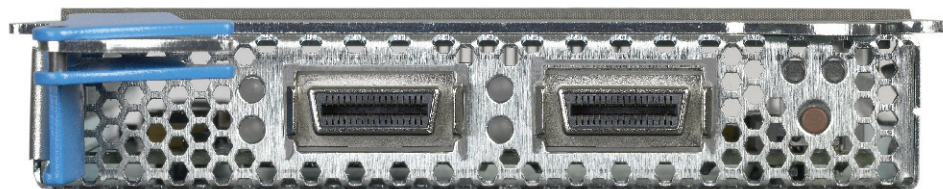


SunSM Dual Port 4x IB Host Channel Adapter PCIe Express Module

Best-in-class Infiniband fabric connectivity for server-clustered applications



The Sun™ Dual Port 4X IB Host Channel Adapter PCIe Express Module delivers high-performance, low-latency I/O interconnect technology in a single-wide Express Module form factor card for the Sun Blade™ 8000 modular system. It offers support for Remote Direct Memory Access (RDMA) and OS bypass technologies that can significantly reduce memory copy overhead, thereby improving CPU utilization.

Highlights

- Express Module, dual 4X (10 Gigabit) IB copper card
- InfiniBand Trade Association (IBTA) V1.1 compatible design
- Support for Internet protocol over InfiniBand (IPoIB) and for User Direct Access Programming Library (uDAPL)
- Support for Remote Direct Memory Access (RDMA) standard and for OS bypass technologies
- PCIe Express Bus Specification 1.1 with full-duplex point-to-point links running at 2.5 Gb/s per lane
- 256 MB of DDR memory

The Sun Dual Port 4X IB Host Channel Adapter PCIe Express Module enables an aggregate bandwidth of 10 Gigabits per second (Gb/s) over four full-duplex point-to-point links running at 2.5 Gb/s per lane. PCIe Express offers lower latencies and two to four times peak bandwidth improvement over PCI-X slots. Bandwidth and latency are critical attributes for clustered databases, High Performance Computing (HPC), and embedded and storage applications.

These technologies enable Sun customers to scale horizontally in clustered configurations without losing performance. ISV applications such as Oracle 10g Real Application Cluster (RAC) that utilize protocols running on InfiniBand clusters can gain from significant performance improvements in latency, throughput, and CPU utilization. This enables customers to achieve better value in terms of price/performance and lower Total Cost of Ownership (TCO) for their server platforms.

The Sun Dual Port 4X IB Host Channel Adapter PCIe Express Module conforms to InfiniBand Trade Association (IBTA) 1.1 specification to enable open standards-based implementation and vendor interoperability. This high degree of interoperability helps protect customer investment while providing smoother migration to new systems and reduced TCO. Support for RDMA enables transmission of data directly from the memory of one processor into the memory of another processor—without involving the operating system for either processor. The IPoIB architecture also enables systems to run Internet protocols over InfiniBand links.

The Sun Dual Port 4X IB Host Channel Adapter PCIe Express Module offers impressive I/O bandwidth, a high level of functionality, and best-in-class InfiniBand fabric connectivity for server-clustered applications.

Sun Dual Port 4x IB Host Channel Adapter PCIe Express Module

PCIe Bus

- PCIe Express Bus Specification 1.1, full-duplex point-to-point links running at 2.5 Gb/s per lane

Form Factor

- Single-wide PCIe Express Module (108 mm x 168.2 mm)

Memory

- 256 MB DDR memory

Operating System Support

- Solaris 10 OS on X64
- Red Hat Enterprise Advanced Server 4 (64-bit)
- SUSE LINUX Enterprise Server 9 (64-bit)
- Microsoft Windows Server 2003 (Enterprise and Standard Editions, 32-bit and 64-bit)

Supported Platforms

- Sun Blade 8000 Modular System

Compatibility

- InfiniBand specification: IBTA v1.1

Network Protocol Support

- IPoIB (IP over IB)
- uDAPL (user Direct Access Programming Library)

Power and Environment

- Voltage: 12 V, 3.3 V
- Maximum power: 8 W
- Temperature: 0°C to 40°C

Regulatory Compliance

- EMC: 47CFR part 15:2005, subpart B, Class B; ICES-003:2-4 Issue 4, Class B; VCCI V-3/2005.04, Class B; EN 55022:1998+A1(00)+A2(03), Class B; EN 55024:1998+A1(01)+A2(03)

Connections

- Two 4X InfiniBand copper connectors (each 4X supports 10 Gb/s traffic)
- PCIe x8 Edge Connector

Ordering Information

- X1288A-Z: Sun Dual-Port 4x IB Host channel adapter Express Module. RoHS-5. (IB cables not included — need to be ordered separately)

NOTE: Supported Cables to connect to Sun 9 port IB Switch X3152A-4

- X9280A Sun 4x-to-12x InfiniBand cable, 2 meter length
- X9281A Sun 4x-to-12x InfiniBand cable, 5 meter length

Use only supported cables to ensure reliable InfiniBand interface connections. These cables can be ordered from Sun Microsystems, Inc. Connecting to other IB switch vendor ports may require 4x-4x IB cables. Refer to the documentation for the IB switch you use for the required IB cables.

Applications

- Clustered database
- InfiniBand grid architectures
- High-performance compute clusters
- Storage solutions

Learn more.

For more information on the Sun Dual Port 4x IB Host Channel Adapter PCIe Express Module visit sun.com/products/networking/infiniband or talk to a local Sun sales representative.