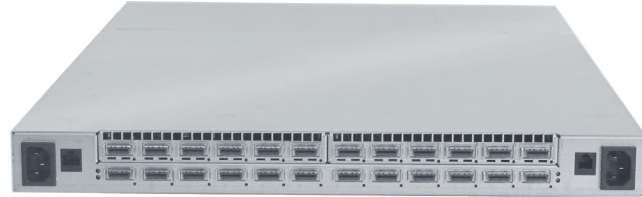**QLOGIC®**

SilverStorm™ 9024 Switch

10 Gbps and 20 Gbps Cluster Computing Interconnect

Benefits

- An entry-level high performance platform for HPC, database, and grid clustering
- Leading price/performance
- 24-ports (4X) in a 1U form factor
- Supports mixture of SDR and DDR configurations
- Low end-to-end latency fabrics
- Component of larger multi-tier fabrics

Key Features

- Latency less than 140 nsec
- Up to 960 Gbps of fabric bandwidth available in each switch
- Non-disruptive code load and activation
- Integrates seamlessly with all SilverStorm switch gateway products for storage and network connectivity
- Intelligent switching platform supporting SNMP and API management capabilities
- Out-of-Band Ethernet management support
- Fully redundant power, cooling, and logic components
- Supports both copper and Fiber Optic InfiniBand cables

The SilverStorm 9024 is a high performance 24-port InfiniBand® switch that enables the construction of high-speed, low latency computer clusters to power many of today's business applications such as:

- Computer grid/virtualization
- Modeling and simulation
- Clustered database
- Oil and gas reservoir simulation
- Computational fluid dynamics
- Research/computational clustering

InfiniBand provides significant competitive advantages to companies by enabling reductions in time-to-market and more fine-grained data analysis.

There are two 9024 models supporting 10 Gbps or 20 Gbps. They can be used to construct small InfiniBand fabrics, or as an edge or leaf switch in larger fabrics. These multi-tier fabrics can then deliver the productivity and performance metrics demanded by computationally intensive environments, even as fabrics scale to very high node counts.

The 9024 is just one part of the SilverStorm product family that includes the modular 9120 (with 12 option slots) and 9240 (with 24 option slots) switch gateway systems—all boasting non-blocking, Full Bisectional Bandwidth (FBB) that can satisfy even the most demanding clustering applications.

Intelligent Building Blocks for Scaling Fabrics. The 9024 can be integrated with other switch gateway systems as part of a larger computing cluster. This provides access to all 9024 attached servers from the I/O gateways supported in the SilverStorm 9000 Fabric Director systems. SilverStorm provides the lowest cost and the lowest power consolidation of cluster, Ethernet, and Fibre Channel networks.

Robust Design for the Enterprise. Built for mission-critical application, the SilverStorm 9024 features redundant, hot-swappable power and cooling elements with the ability to non-disruptively upgrade the operating code.

Configuration and Fabric Management. All SilverStorm products are managed by the QuickSilver OS management and FastFabric Toolset. Together these management tools provide system and fabric level management with a consistent user interface for topology, configuration, performance, and fabric diagnostics across the entire SilverStorm InfiniBand product portfolio.

Switch Specifications

Switch Chassis Hardware Functionality
- Virtual Lanes: 8 plus 1 management
- MTU size: Up to 4096
- Unicast table: 48K entries
- Multicast table: 1024 entries

Ethernet Port
- One RS-232 port per management module

Peak System Bandwidth
- SDR: 480 Gbps full duplex
- DDR: 960 Gbps full duplex

Switching
- Cut-through

Switching Latency
- < 140 nsec

Availability
- Redundant power (AC/DC)
- Redundant cooling
- Hot swap components
- Non-disruptive code load/activation

Interoperability
- IBTA 1.0a, 1.1 and 1.2

Physical Specifications

Full Chassis Dimensions
- 1.7 x 17.32 x 26.75 inches
- 43.2 x 440 x 679.4 mm

Full Chassis Weight
- 16 lbs. (7.27 kg)

Short Chassis Dimensions
- 1.7 x 17.32 x 11.5 inches
- 43.2 x 440 x 292 mm

Short Chassis Weight
- 10 lbs. (4.5 kg)

Environmental and Equipment Specifications

Temperature
- Operating / (Non-Operating):
  5° to 45°C / (-35° to 65°C)

Humidity
- Operating / (Non-Operating):
  5 to 85% / (5 to 90%) non-condensing

Power Dissipation
- 65 Watts maximum

Power Range
- 85 to 264 VAC (47-63 Hz)

AC Power Feed
- Two independent IEC 320 power connectors

Agency Approvals

- Safety: UL/CSA/EN
- EMI: FCC/VCCI/EN
- Marking: UL/GS/VCCI/CE

Tools and Utilities

- Embedded chassis management processor
- Optional embedded Fabric Management (SM, PM, and BM)
- Optional Server-based InfiniBand compliant Subnet Manager
- SNMP management support

Ordering Information

Part Numbers
- 9024-CU24-ST2
  - SilverStorm 9024 (SDR)
  - 24 ports @ 10 Gbps
  - Hot-swappable power and cooling
- 9024-CU24-ST2-DDR
  - SilverStorm 9024 (DDR)
  - 24 ports @ 10/20 Gbps (4X)
  - Hot-swappable power and cooling
- 9024-FC24-ST1
  - SilverStorm 9024 (SDR)
  - 24 ports @ 10 Gbps (4X)
  - Fixed power and cooling
- 9024-FC24-ST1-DDR
  - SilverStorm 9024 DDR
  - 24 ports @ 10/20 Gbps (4X)
  - Fixed power and cooling