



## SWITCH SYSTEM

# IS5025

## 36-port Non-blocking Unmanaged 40Gb/s InfiniBand Switch System

The IS5025 switch system provide the highest-performing fabric solutions in a 1RU form factor by delivering 2.88Tb/s of non-blocking bandwidth to High-Performance Computing and Enterprise Data Centers, with 100ns port-to-port latency. Built with Mellanox's 4th generation InfiniScale® IV InfiniBand switch device, the IS5025 provides up to 40Gb/s full bidirectional bandwidth per port. These stand-alone switches are an ideal choice for top-of-rack leaf connectivity or for building small to medium sized clusters. The IS5025 is designed to carry converged LAN and SAN traffic with the combination of assured bandwidth and granular Quality of Service (QoS).

### Sustained Network Performance

The IS5025 enable efficient computing with features such as static routing, adaptive routing, and advanced congestion management. These features ensure the maximum effective fabric bandwidth by eliminating congestion hot spots. Whether used for parallel computation or as a converged fabric, the IS5000 family of switches provides the industry's best traffic-carrying capacity.

### World-Class Design

The IS5025 is an elegant top of the rack design, that are designed for performance, serviceability, energy savings and high-availability. The design is optimized for fitting into industry-standard racks and also for scale-out computing solutions from industry leaders. The IS50325 supports reversible airflow making the design fit into data centers with different thermal designs. Redundant and hot swappable power supplies and fans provide high availability for both High-Performance Computing and Enterprise Data Center applications. Status LEDs for fans and power supply units are placed on both sides of the system for easy status identification. Quick start guide, rack mount kit, AC power cord and RJ45 to DB9 console cables are provided as part of the standard system providing new levels of out of the box experience and performance.



IS5025

### BENEFITS

- Industry-leading, switch platform in performance, power, and density
- Highest ROI - designed for energy and cost savings
- Ultra low latency
- Granular QoS for Cluster, LAN and SAN traffic
- Maximizes performance by removing fabric congestions

### KEY FEATURES

- 2.88Tb/s switching capacity
- Signal optimization for longer cable length
- Quality of Service enforcement
- Up to 6 virtual subnets
- Temperature sensors and voltage monitors
- Reversible air flow
- Redundant power supplies
- Replacable fan drawers

### INFINIBAND

- IBTA Specification 1.2.1 compliant
- Integrated subnet manager agent
- Adaptive routing
- Congestion control
- 256 to 4Kbyte MTU
- 9 virtual lanes: 8 data + 1 management
- 48K entry linear forwarding data base
- Port Mirroring

**HARDWARE****INFINIBAND SWITCH**

- 36 ports
- Up to 40Gb/s per port
- Fully non-blocking architecture

**MANAGEMENT PORTS**

- I2C (RJ45)

**CONNECTORS AND CABLING**

- QSFP connectors
- Passive copper cable
- Active copper and fiber cables
- Fiber media adapters

**INDICATORS**

- Per port status LED Link, Activity
- System status LED System, fans, power supplies

**POWER SUPPLY**

- Dual redundant slots
- Hot plug operation
- Input range: 100 - 240VAC
- Frequency: 50-60Hz, single phase AC

**FANS**

- Replaceable fan tray
- Status LED location on the FRU
- Optional Reversible air flow
- Fan speed controlled through management software

**COMPLIANCE****SAFETY**

- US/Canada: cTUVus
- EU: IEC60950
- International: CB

**EMC (EMISSIONS)**

- USA: FCC, Class A
- Canada: ICES, Class A
- EU: EN55022, Class A
- EU: EN55024, Class A
- EU: EN61000-3-2, Class A
- EU: EN61000-3-3, Class A
- Japan: VCCI, Class A

**ENVIRONMENTAL**

- EU: IEC 60068-2-64: Random Vibration
- EU: IEC 60068-2-29: Shocks, Type I / II
- EU: IEC 60068-2-32: Fall Test

**ACCOUSTIC**

- ISO 7779
- ETS 300 753

**OPERATING CONDITIONS**

- Operating 0°C to 45°C,  
Non Operating -40°C to 70°C
- Humidity: Operating 5% to 95%,  
Non Operating 5% to 95%
- Altitude: Operating -60 to 2000m,  
Non Operating -60 to 2000m
- Noise: 55dB - Noise reduction by controlling  
fan speed

**OTHERS**

- RoHS-5 compliant
- Rack-mountable, 1U
- 1-year warranty

Ordering Part Number	Description
MIS5025D-1SFC	InfiniScale® IV DDR InfiniBand Switch, 36 QSFP ports, 1 power supply, Unmanaged, PSU side to connector side airflow, (standard depth) with rack rails
MIS5025D-1SRC	InfiniScale® IV DDR InfiniBand Switch, 36 QSFP ports, 1 power supply, Unmanaged, Connector side to PSU side airflow, (standard depth) with rack rails
MIS5025Q-1SFC	InfiniScale® IV QDR InfiniBand Switch, 36 QSFP ports, 1 power supply, Unmanaged, PSU side to connector side airflow, (standard depth) with rack rails
MIS5025Q-1SRC	InfiniScale® IV QDR InfiniBand Switch, 36 QSFP ports, 1 power supply, Unmanaged, Connector side to PSU side airflow, (standard depth) with rack rails

Also available in short depth form factor. Consult your Mellanox Sales Representative for further details.



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