



KEY FEATURES

- Design files to manufacture an InfiniBand v1.2 compliant 8-port switch
- Full non-blocking switch architecture
- Ultra-low latency < 180ns
- Small form factor design
- 19" rack mountable
- Supports standard 4X copper InfiniBand cables or 300m fiber connections via media adapter modules
- LEDs indicate port link and activity
- Less than 30 Watts
- Compatible with Open Source software management

PRODUCTION KIT

- Comprehensive production-tested manufacturing kit
- Schematics and layout databases
- Mechanical design files
- Bill of materials
- Product quality and regulatory documents

MTPDK08 InfiniBand Switch Production Development Kit

Overview

The MTPDK08 Production Development Kit (PDK) is a complete set of source files that enable OEMs to rapidly manufacture and deliver a cost-effective, high-performance, 8-port 4X (10Gb/s) InfiniBand switch. Each InfiniBand port supports either a standard InfiniBand 4X copper cable interface, or a fiber connection via separate media adapter module for connections up to 300 meters. Also supported is a standard 9-pin D-type connector for debug purposes and firmware upgrade purposes.

At the heart of the MTPDK08 switch design is a single Mellanox InfiniScale integrated 8-port switch IC that delivers 160Gb/s of ultra low-latency switching performance with integrated physical Layer SerDes interfaces. All firmware and EEPROM contents are included to enable switch management from another Subnet Manager agent on the fabric. This development kit is optimized for OEMs targeting low-cost InfiniBand fabric switch solutions.

The MTPDK08 specifies a compact 1U enclosure for the 8-port InfiniBand switch with dimensions measuring 340 mm x 167 mm x 43.6 mm

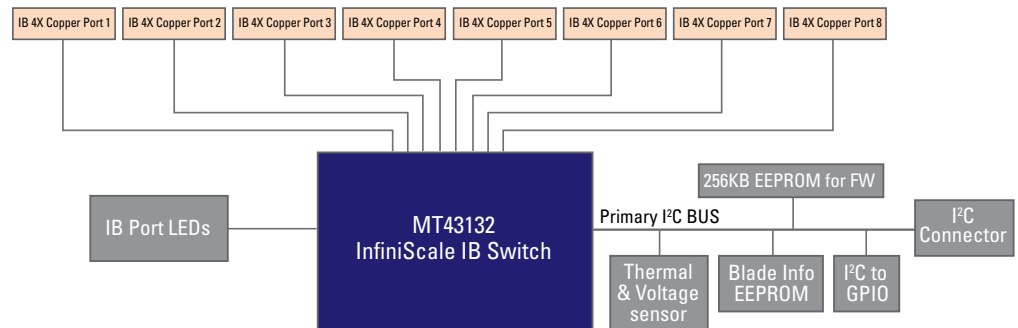


Rear Panel View



Front Panel View

(W x D x H). The enclosure also houses an internal power supply for AC power operation (automatically detects 110V or 220V), internal fans, temperature sensors, and LED Status Indicators for InfiniBand Ports. The switch enclosure can be mounted into a standard 19" rack.



* Fiber Media Adapter supported on all IB 4x copper ports

MTPDK08 InfiniBand Switch Production Development Kit

APPLICATIONS

- Virtualized data centers that require a high-bandwidth, low-latency interconnect for servers and storage grids
- Departmental or personal supercomputing clusters for molecular modeling, financial risk assessment, drug research, etc.
- Clustered database applications, parallel RDBMS queries, high-throughput data warehousing
- Clustered storage and performance storage applications such as backup, restore, mirroring, etc.
- Electronic design automation (EDA)

INFINIBAND BENEFITS

- Industry-standard technology
- Unified computing, storage and management
- High-bandwidth, low-latency
- Performance roadmap to 120Gb/s
- Highly-efficient clustering
- Ultimate reliability and scalability
- Multi-platform support
- Congestion management and QoS
- Virtualized I/O fabric
- World-class price/performance

Compatible with Open Source Management Solutions

The MTPDK08 is compatible with any standard InfiniBand-compliant Subnet Management software running externally of the switch. Once connected to an InfiniBand fabric, the InfiniScale firmware can be updated and managed from

remote InfiniBand hosts. Internal temperature, voltages, and the status of the power and fan module can be monitored remotely over the InfiniBand fabric.

MTPDK08 Production Kit Contents

General Documentation

- Product Brief
- User's Manual

Test Documentation

- Functional test User's Manual
- Functional test setup
- Functional test code
- BSDL file

Embedded Software/Firmware and Diagnostics

- Embedded Software /Firmware Installation User's Manual
- Software/Firmware installation package
- Diagnostics Software tools

Product Quality and Regulatory Documentations

- DVT (Design Validation Test) Reports
- MTBF Prediction Report
- Regulatory Certifications and Reports

Design Documentation

- Schematics
- Bill of Materials
- PCB layout database
- Printed boards manufacturing files (gerbers, solder, paste and silk masks, drill drawing, neutral file, aperture file, stack-up)
- Mechanical e-drawings
- Assembly instructions
- Assembly drawings
- Special manufacturing tools
- Mechanical manufacturing drawings



MTPDK08 KIT

Part Number	Set Configuration	Port Speed	Switch Design Size
MTPDK08	8-port 4X w/ Media Adapter Support	10Gb/s (4X)	1U – 340 mm x 167 mm x 43.6 mm (W x D x H) 1U – 34 cm x 16.7 cm x 4.36 cm (W x D x H) 1U – 13.39 in x 6.57 in x 1.72 in (W x D x H)

* Can be used on desktop or 19" rack mountable (using rack mounting adapters)



2900 Stender Way, Santa Clara, CA 95054
Tel: 408-970-3400 • Fax: 408-970-3403
www.mellanox.com