Long-Haul System Family

Highest Levels of RDMA Scalability, Simplified Distance Networks Manageability, Maximum System Productivity

metroX™

metroDX™

Mellanox
TECHNOLOGIES

Mellanox continues its leadership by providing
RDMA Long-Haul Systems – the highest performing
interconnect solution for Enterprise Data Centers (EDC),
High Performance Computing (HPC) and Storage.

VALUE PROPOSITIONS

- MetroX™ series extends Mellanox's RDMA solutions for high-performance technology to local, campus and even metro applications
- 40Gb/s RDMA execution over distant sites — up to 80km. MetroX enables RDMA over campus, data sharing and support for disaster recovery
- Mellanox long-haul systems support Virtual Protocol Interconnect® (VPI) — allowing them to run seamlessly over both InfiniBand and Ethernet
- Complete solution using Mellanox LR4 and WDM long-haul transceivers
- Low cost, low power, long-haul solutions over an InfiniBand or Ethernet fabrics

- *Industry-leading energy efficiency, density, and cost savings*

- *Ultra-low latency*

- *RDMA over distance*

- *Quick and easy setup and management*

Mellanox's family of long-haul systems delivers the highest performance and port density with a complete chassis and fabric management solution to enable compute clusters and converged data centers to operate at any scale and any distances. Mellanox's MetroX™ solutions enable connections between data centers deployed across multiple geographically distributed sites, extending Mellanox world-leading interconnect benefits beyond local data centers and storage clusters.

Long-Haul RDMA

MetroX systems can transfer 40Gb/s data links to distances of up to 80km. The solution enables aggregate data and storage networking over a single, consolidated fabric. The long-haul RDMA technology guarantees high-performance, high-volume data sharing between distant sites, enabling existing data centers expansion, disaster recovery, data mirroring and campus connectivity.

MetroX is designed for a today's business continuity/disaster recovery needs, delivering zero Recovery Point Objective (RPO). Benefiting the high bandwidth, low latency and simple high availability management connectivity of up to 80 kilometers making disaster recovery design simple.

Virtual Protocol Interconnect® (VPI)

Virtual Protocol Interconnect (VPI) flexibility enables any standard networking, clustering, storage, and management protocol to seamlessly operate over any converged network leveraging a consolidated software stack. VPI simplifies I/O system design and makes it easier for IT managers to deploy infrastructure that meets the challenges of a dynamic data center.

MetroX systems are part of Mellanox's VPI end-to-end interconnect portfolio. VPI and ROCE connectivity are enabled by SW license upgrades.

MTX6000

MTX6000

Mellanox's MetroDX™ is designed for today data center bandwidth, latency and density needs, delivering up to 16 long-haul ports running at 40Gb/s to distances of up to 1km.

MTX6100

MTX6100

Mellanox's MTX6100 supports up to 6 long-haul ports running at 40Gb/s for up to 10km and 6 downlink ports running at 56Gb/s. The port capacity enables star-like campus deployments and provides clear CAPEX reduction versus current single port-to-port long-haul solutions.

MTX6240 / MTX6280

MTX6240 and MTX6280

Mellanox's MTX6240 and MTX6280 systems are designed for today's business continuity/disaster recovery needs, delivering zero RPO (Recovery Point Objective). Provides high bandwidth, low latency and simple high availability management connectivity of up to 80 kilometers making disaster recovery design simple.
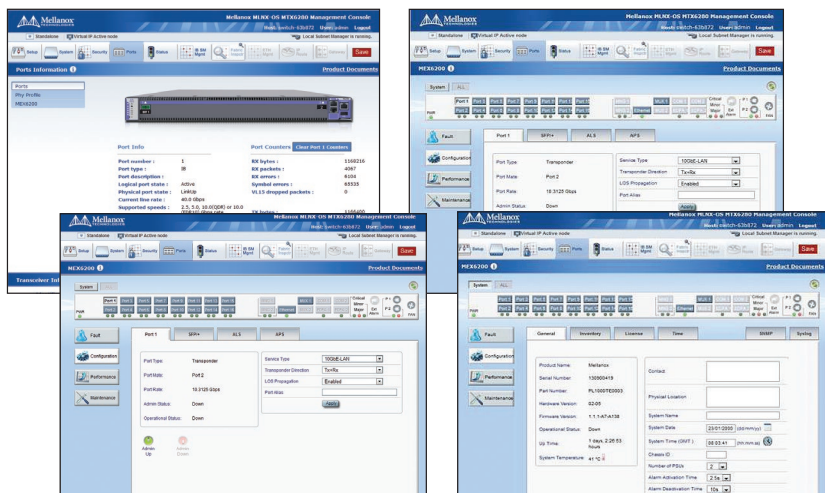
MTX6240 supports two long-haul ports running at 40Gb/s for up to 40km and MTX6280 supports one long-haul port running at 40Gb/s for up to 80km.

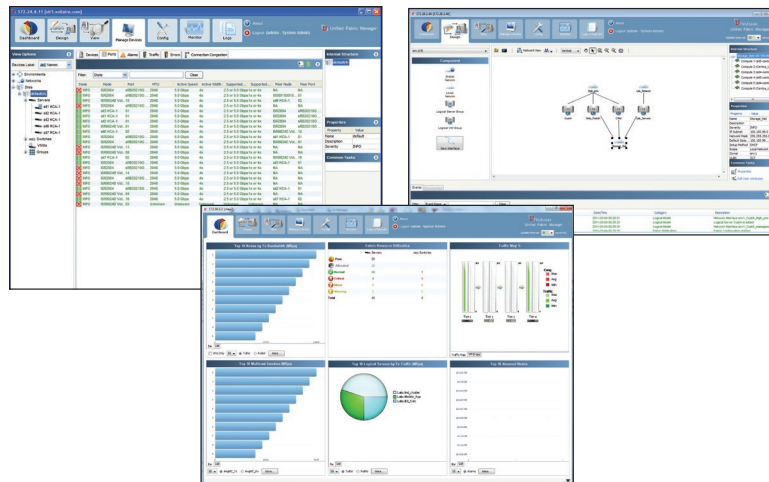|	TX6000	TX6100	TX6240	TX6280
Height	1RU	1RU	2RU	2RU
# long haul ports	16	6	2	1
# downlink ports	16	6	2	1
Long haul ports speed	FDR10/40GbE	FDR10/40GbE	FDR10/40GbE	40GbE
Downlink ports speed	FDR/40GbE	FDR/40GbE	FDR/40GbE	FDR/40GbE
Throughput	640Gb/s	240Gb/s	80Gb/s	40Gb/s
Distance	1Km	10Km	40Km	80Km
Latency	200ns + 5ns/m over fibre	200ns + 5ns/m over fibre	700ns + 5ns/m over fibre	700ns + 5ns/m over fibre
QoS	1 Virtual Lane	1 Virtual Lane	1 Virtual Lane	1 Virtual Lane
Management	Yes	Yes	Yes	Yes
PSU Redundancy	Yes	Yes	Yes	Yes
Target Applications	Data Centers	Campus	Metro	Metro

Enhanced Management Capabilities

Mellanox MLNX-OS™ chassis management software stack provides administrative tools to manage the firmware, power supplies, fans, ports, and other interfaces of the system.

The MetroX software has a GUI based web management which provides full alarm, event history, activities log and performance monitoring for all optical modules.

Mellanox systems can also be coupled with Mellanox's Unified Fabric Manager (UFM®) software for managing scale-out computing environments. UFM enables data center operators to efficiently provision, monitor and operate the modern data center fabric.

Chassis Management

UFM® Software

FEATURE SUMMARY

HARDWARE

– Full bisectional bandwidth to all ports
– IBTA 1.21 and 1.3 compliant
– QSFP+ connectors supporting passive and active cables
– Support for LR4 and WDM long-haul modules
– Redundant auto-sensing 110/220VAC power supplies
– Per port status LED Link, Activity
– System, Fans and PS status LEDs
– Hot-swappable replaceable fan trays

MANAGEMENT

– Mellanox Operating System (MLNX-OS)
  • *Chassis management*
  • *Embedded Subnet Manager (648 nodes)*
  • *Error, event and status notifications*
  • *Quality of Service based on traffic type and service levels*
– Coupled with Mellanox Unified Fabric Manager (UFM)
  • *Comprehensive fabric management*
  • *Secure, remote configuration and management*
  • *Performance/provisioning manager*

COMPLIANCE

SAFETY

– USA/Canada: cTUVus
– EU: IEC60950
– International: CB Scheme

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

ENVIRONMENTAL

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

OPERATING CONDITIONS

– Operating 0°C to 45°C, Non Operating -40°C to 70°C
– Humidity: Operating 5% to 95%
– Altitude: Operating -60 to 2000m

ACCOUSTIC

– ISO 7779
– ETS 300 753

OTHERS

– RoHS-6 compliant
– 1-year warranty

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