Mellanox MCX653106A-HDAT-SP Datasheet



Mellanox MCX653106A-HDAT-SP ConnectX-6 VPI adapter card, HDR IB (200Gb/s) and 200GbE, dual-port QSFP56, PCIe4.0 x16, tall bracket, single pack

MCX653106A-HDAT-SP

NVIDIA MCX653106A-HDAT-SP ConnectX-6 VPI Adapter Card HDR InfiniBand and 200GbE Dual-Port QSFP56 PCIe 4.0 x16 Tall Bracket (-SP indicates Single Pack)

ConnectX-6 VPI Card 200Gb/s InfiniBand & Ethernet Adapter Card

ConnectX-6 Virtual Protocol Interconnect (VPI) cards are a groundbreaking addition to the ConnectX series of industry-leading network adapter cards. Providing two ports of 200Gb/s for InfiniBand and Ethernet connectivity, sub-600ns latency and 215 million messages per second, ConnectX-6 VPI cards enable the highest performance and most flexible solution aimed at meeting the continually growing demands of data center applications. In addition to all the existing innovative features of past versions, ConnectX-6 cards offer a number of enhancements to further improve performance and scalability.

ConnectX-6 VPI supports HDR, HDR100, EDR, FDR, QDR, DDR and SDR InfiniBand speeds as well as 200, 100, 50, 40, 25, and 10Gb/s Ethernet speeds.

Features

- Up to 200Gb/s connectivity per port
- Max bandwidth of 200Gb/s
- Up to 215 million messages/sec
- Sub 0.6usec latency
- Block-level XTS-AES mode hardware encryption
- FIPS capable
- Advanced storage capabilities including block-level encryption and checksum offloads
- Supports both 50G SerDes (PAM4) and 25G SerDes (NRZ) based ports
- Best-in-class packet pacing with sub-nanosecond accuracy
- PCIe Gen 3.0 and Gen 4.0 support
- RoHS compliant
- ODCC compatible

Benefits

- Industry-leading throughput, low CPU utilization and high message rate
- Highest performance and most intelligent fabric for compute and storage infrastructures
- Cutting-edge performance in virtualized networks including Network Function Virtualization (NFV)
- Host Chaining technology for economical rack design
- Smart interconnect for x86, Power, Arm, GPU and FPGA-based compute and storage platforms
- Flexible programmable pipeline for new network flows
- Efficient service chaining enablement
- Increased I/O consolidation efficiencies, reducing data center costs & complexity

For more specifications of this MCX653106A-HDAT-SP, please visit below Mellanox website:

https://docs.mellanox.com/display/ConnectX6VPI/Specifications