

Mellanox MCX455A-ECAT Datasheet



Mellanox MCX455A-ECAT ConnectX-4 VPI 100GbE Single-port InfiniBand & Ethernet Adapter Card

MCX455A-ECAT

Genuine Mellanox MCX455A-ECAT ConnectX-4 VPI 100GbE Single-port InfiniBand & Ethernet Adapter Card

ConnectX-4 adapter cards with Virtual Protocol Interconnect (VPI), supporting EDR 100Gb/s InfiniBand and 100Gb/s Ethernet connectivity, provide the highest performance and most flexible solution for high performance, Web 2.0, Cloud, data analytics, database, and storage platforms.

With the exponential growth of data being shared and stored by applications and social networks, the need for high-speed and high performance compute and storage data centers is skyrocketing.

ConnectX-4 provides exceptional high performance for the most demanding data centers, public and private clouds, Web 2.0 and Big Data applications, as well as High-Performance Computing (HPC) and Storage systems, enabling today's corporations to meet the demands of the data explosion.

ConnectX-4 provides an unmatched combination of 100Gb/s bandwidth in a single port, the lowest available latency, and specific hardware offloads, addressing both today's and the next generation's compute and storage data center demands.

FEATURES

- EDR 100Gb/s InfiniBand or 100Gb/s Ethernet per port
- 1/10/25/40/50/56/100 Gb/s speeds
- 150M messages/second
- Single and dual-port options available
- T10-DIF Signature Handover
- Virtual Protocol Interconnect (VPI)
- CPU offloading of transport operations
- Application offloading
- Mellanox PeerDirect communication acceleration
- Hardware offloads for NVGRE and VXLAN encapsulated traffic
- End-to-end QoS and congestion control
- Hardware-based I/O virtualization
- Ethernet encapsulation (EoIB)
- RoHS compliant
- ODCC compatible

BENEFITS

- Highest performing silicon for applications requiring high bandwidth, low latency and high message rate
- World-class cluster, network, and storage performance
- Smart interconnect for x86, Power, Arm, and GPU-based compute and storage platforms
- Cutting-edge performance in virtualized overlay networks (NVGRE)
- Efficient I/O consolidation, lowering data center costs and complexity
- Virtualization acceleration
- Power efficiency
- Scalability to tens-of-thousands of nodes

For more specifications of this MCX455A-ECAT, please visit below Mellanox website:

<https://www.mellanox.com/files/doc-2020/pb-connectx-4-vpi-card.pdf>

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