AOC-UIBQ-m2

SUPERMICR⬤®

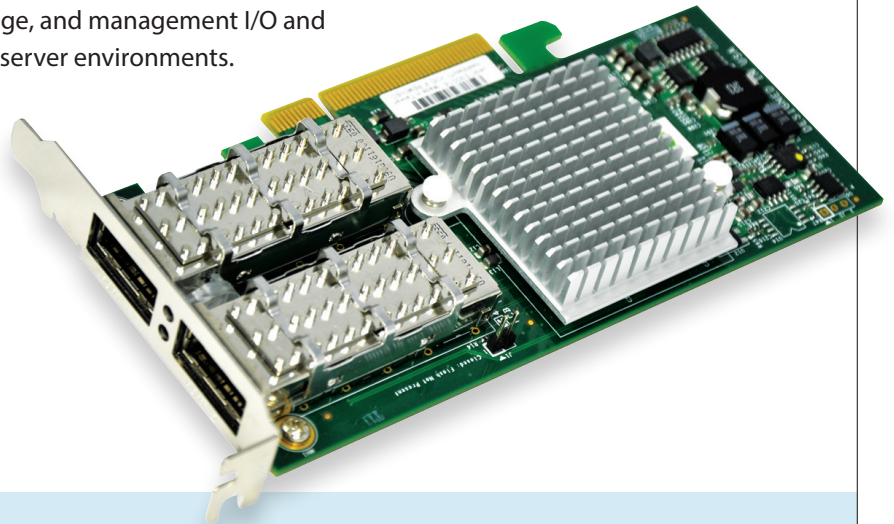## Dual-port InfiniBand QDR UIO Adapter Card with PCI-E 2.0 and Virtual Protocol Interconnect™ (VPI)

AOC-UIBQ-m2 InfiniBand card with Virtual Protocol Interconnect (VPI) provides the highest performing and most flexible interconnect solution for performance-driven server and storage clustering applications in Enterprise Data Centers, High-Performance Computing, and Embedded environments. Clustered databases, parallelized applications, transactional services and high-performance embedded I/O applications will achieve significant performance improvements resulting in reduced completion time and lower cost per operation. AOC-UIBQ-m2 simplifies network deployment by consolidating clustering, communications, storage, and management I/O and by providing enhanced performance in virtualized server environments.

Key Features
- **Virtual Protocol Interconnect™ (VPI)**
- **1us MPI ping latency**
- **Selectable 40Gb/s InfiniBand or 10GbE port**
- **PCI Express 2.0 (up to 5GT/s)**
- **CPU offload of transport operations**
- **End-to-end QoS and congestion control**
- **Hardware-based I/O virtualization**
- **TCP/UDP/IP stateless offload**
- **Fibre Channel encapsulation (FCoIB or FCoE)**

Specifications

- **InfiniBand:**
  - Mellanox® ConnectX-2 IB QDR
  - Dual InfiniBand QSFP ports
  - 40Gb/s per port
  - RDMA, Send/Receive semantics
  - Hardware-based congestion control
  - Atomic operations
- **Interface:**
  - PCI Express 2.0 x8 (5GT/s)
  - UIO low-profile half-length form factor
- **Connectivity:**
  - Interoperable with InfiniBand or 10GbE switches
  - QSFP connector
  - 7m+ (40Gb/s) of passive copper cable
  - External optical media adapter and active cable support
- **Hardware-based I/O Virtualization:**
  - Single Root IOV
  - Address translation and protection
  - Multiple queues per virtual machine
  - VMware NetQueue support
  - PCI-SIG IOV compliant
- **CPU Offloads:**
  - TCP/UDP/IP stateless offload
  - Intelligent interrupt coalescence
  - Compliant to Microsoft RSS and NetDMA

- **Storage Support:**
  - T10-compliant Data Integrity Field support
  - Fibre Channel over InfiniBand or Ethernet
- **Operating Systems/Distributions:**
  - Novell SLES, RedHat, Fedora and others
  - Microsoft® Windows Server 2003/2008/CCS 2003
  - OpenFabrics Enterprise Distribution (OFED)
  - OpenFabrics Windows Distribution (WinOF)
  - VMWare ESX Server 3.5, Citrix XenServer 4.1
- **Operating Conditions:**
  - Operating temperature: 0°C to 55°C
- **Physical Dimensions:**
  - Card PCB dimensions: 14.29cm (5.63in) x 6.35cm (2.50in) (LxW)
  - Height of end brackets: standard – 12cm (4.725in), low-profile – 7.94 (3.13in)
- **Optional Accessories:**
  - CBL-0417L: 39.37" (100cm) QSFP to QSFP InfiniBand QDR PBF
  - CBL-0325L: 78.74" (200cm) QSFP to QSFP InfiniBand QDR
  - CBL-0446L: 118.11" (300cm) QSFP to QSFP InfiniBand QDR
  - CBL-0422L: 196.85" (500cm) QSFP to QSFP InfiniBand QDR
  - CBL-0467L: 7M QSFP to QSFP InfiniBand QDR Passive Copper Cable
  - CBL-0468L: 15M QSFP to QSFP InfiniBand QDR Fiber Active Optical Cable

Compliance/Environmental
- RoHS Compliant 6/6, Pb Free

Supported Platforms
- Supported Motherboards: All Supermicro UIO Motherboards
- Supported Servers: All Supermicro UIO Servers

For the most current product information, visit:

www.supermicro.com