# AOC-UIBQ-m1

# SUPERMICR

# Single-port InfiniBand QDR UIO Adapter Card with PCI-E 2.0 and Virtual Protocol Interconnect<sup>™</sup> (VPI)

**AOC-UIBQ-m1** 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 Center, 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 processing time and lower costs per operation. **AOC-UIBQ-m1** 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<sup>™</sup> (VPI)
- 1µs 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<sup>®</sup> ConnectX<sup>®</sup>-2 IB QDR (MT25408B0-FCC-QIS)
- Single InfiniBand QSFP port
- 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) maximum copper cable length
  - External optical media adapter and active cable support
- Hardware-based I/O Virtualization:
  - Single Root I/O
  - Address translation and protection
  - Multiple queues per virtual machine
  - VMware NetQueue support
  - PCISIG IOV compliant
- CPU Offloads:
  - TCP/UDP/IP stateless offload
  - Intelligent interrupt coalescence
  - Microsoft RSS and NetDMA compliant

# **Compliance/Environmental**

- RoHS Compliant 6/6, Pb Free

# Storage Support

- T10-compliant Data Integrity Field support
- Fibre Channel over InfiniBand or Ethernet (FCoIB or FCoE)
- Operating Systems/Distributions:
  - Novell SLES, RedHat, Fedora and others
  - Microsoft<sup>®</sup> 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 20 cm (5.62") x 6.25 cm (2.
- 14.29cm (5.63") x 6.35cm (2.50") (LxW) – Height of end brackets:
  - standard 12cm (4.725in), low-profile 7.94cm (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

# Supported Platforms

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