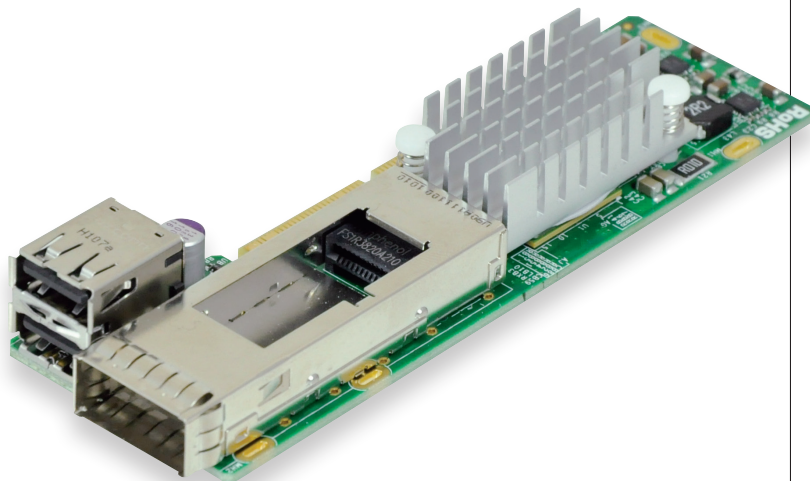


Compact and Powerful InfiniBand QDR Adapter

The AOC-CIBQ-m1 is the most compact, yet powerful, InfiniBand adapter in the market. Based on Mellanox® ConnectX-3 with Virtual Protocol Interconnect (VPI), it provides the highest performing and most flexible interconnect solution for servers used in Enterprise Data Centers and High-Performance Computing. The AOC-CIBQ-m1 simplifies the system development by serving both InfiniBand and Ethernet fabrics in one hardware design. The AOC-CIBQ-m1 is designed in a small microLP form factor to fit Supermicro Twin and MicroCloud server systems.

Key Features

- **Single QSFP Connector**
- **MicroLP Form Factor**
- **PCI Express 3.0 (up to 8GT/s)**
- **Virtual Protocol Interconnect (VPI)**
- **1µs MPI ping latency**
- **Up to 40Gbps InfiniBand or 10Gbps Ethernet**
- **CPU offload of transport operations**
- **Application offload**
- **GPU communication acceleration**
- **End-to-end QoS and congestion control**
- **Hardware-based I/O virtualization**
- **Ethernet encapsulation (EoIB)**
- **RoHS compliant 6/6**

**Specifications****General**

- Mellanox® ConnectX-3 QDR controller
- Compact size microLP form factor
- Single QSFP port and dual USB 2.0 ports
- PCI-E 3.0 x8 (8GT/s) interface

Connectivity

- Interoperable with InfiniBand or 10GbE switches
- Passive copper cable with ESD protection
- Powered connectors for optical and active cable support

InfiniBand

- IBTA Specification 1.2.1 compliant
- Hardware-based congestion control
- 16 million I/O channels
- 256 to 4Kbyte MTU, 1Gbyte messages

Enhanced InfiniBand

- Hardware-based reliable transport
- Collective operations offloads
- GPU communication acceleration
- Hardware-based reliable multicast
- Extended Reliable Connected transport
- Enhanced Atomic operations

Ethernet

- IEEE Std 802.3ae 10 Gigabit Ethernet
- IEEE Std 802.3ad Link Aggregation and Failover
- IEEE Std 802.3az Energy Efficient Ethernet
- IEEE Std 802.1Q, .1p VLAN tags and priority
- IEEE Std 802.1Qau Congestion Notification
- IEEE P802.1Qaz D0.2 ETS
- IEEE P802.1Qbb D1.0 Priority-based Flow Control
- Jumbo frame support (9.6KB)

Compliance/Environmental

- RoHS Compliant 6/6, Pb Free

Hardware-based I/O Virtualization

- Single Root IOV
- Address translation and protection
- Dedicated adapter resources
- Multiple queues per virtual machine
- Enhanced QoS for vNICs
- VMware NetQueue support

Manageability Features:

- Additional CPU Offloads
- RDMA over Converged Ethernet
- TCP/UDP/IP stateless offload
- Intelligent interrupt coalescence

Flexboot™ Technology

- Remote boot over InfiniBand
- Remote boot over Ethernet
- Remote boot over iSCSI

Protocol Support

- Open MPI, OSU MVAPICH, Intel MPI, MS
- MPI, Platform MPI
- TCP/UDP, EoIB, iPoB, SDP, RDS
- SRP, iSER, NFS RDMA
- uDAPL

Operating Systems/Distributions

- Novell SLES, Red Hat Enterprise Linux (RHEL), and other Linux distributions
- Microsoft Windows Server 2008/CCS 2003, HPC Server 2008
- OpenFabrics Enterprise Distribution (OFED)
- OpenFabrics Windows Distribution (WinOF)
- VMware ESX Server 3.5, vSphere 4.0/4.1

Physical Dimensions

- Card PCB dimensions (without end brackets):
- 12.32cm (4.85in) x 3.90cm (1.54in) (LxW)

Operating Condition

- Operating Temperature: 0°C to 55°C

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

- Supermicro Twin and MicroCloud Server Systems with microLP expansion slot

Please note that this product is only available as an integrated solution with Supermicro server systems

For the most current product information, visit:

www.supermicro.com