## AOC-CTG-i2T

# **SUPERMICR**

### The Most Advanced Ethernet Adapter for High-Density Server Systems

The Supermicro AOC-CTG-i2T is one of the lowest power and most cost effective 10GBase-T adapter solutions in today's data center marketplace. The auto-negotiation feature between 1GbE and 10GbE provided by the AOC-CTG-i2T offers users the backwards compatibility they need for a smooth transition to 10GbE. It reliably addresses the demanding needs of bandwidth-intensive applications at a fraction of the cost of traditional 10GbE adapters by utilizing cost-effective RJ-45 connectors at a much longer cabling distance. The Supermicro AOC-CTG-i2T 10GbE adapter is truly a best-in-class solution for advanced data centers.

#### **Key Features**

- Dual RJ45 Connectors
- 2U MicroLP Form Factor
- PCI Express 2.1 (2.5GT/s or 5GT/s)
- Intel<sup>®</sup> QuickData Technology
- VMDq, Next-Generation VMDq, and PC-SIG SR-IOV for Virtualized Environments
- Jumbo Frames Support up to 9KB
- Load Balancing on Multiple CPUs
- iSCSI Remote Boot Support
- Fibre Channel over Ethernet (FCoE)
- Support the most popular Network
   Operating Systems (NOSs)
- Support RJ-45 Category-6 or 6A
- RoHS compliant 6/6

#### Specifications

- General:
  - Intel® X540 10GbE controller with integrated 10GBase-T copper PHYs
     Compact size 2U MicroLP form factor
  - PCI-E x8 2.1 (2.5GT/s or 5GT/s) interface
  - Dual RJ-45 connectors with speed up to 10Gb/port
  - Load balancing on multiple CPUs
  - Intel<sup>®</sup> PROSet Utility for Windows<sup>®</sup> Device Manager
  - Maximum power consumption: about 13W
- I/O Features:
  - Intel® QuickData Technology: DMA engine that enhances data acceleration and lowers CPU usage
     Support jumbo frames of up to 9KB
- Support Jumbo frame - 802.1q VLAN support
- Two integrated independent 10GBase-T interfaces operate at 10GBase-T (10Gb/s) and 1000Base-T (1Gb/s) modes
- Direct Cache Access (DCA) to avoid cache misses
  MSI-X support to minimize interrupt overhead of and
- allow load-balancing between multiple cores/CPUs
   Receive and Transmit Side Scaling for Windows environment
- and Scalable I/O for Linux environments

#### Performance Features:

- TCP/UDP Segmentation Offload
- IPv6 Support for IP/TCP and IP/UDP Receive Checksum Offload
- Supports Fibre Channel over Ethernet (FCoE)
- Low latency interrupts
- DCA support

#### Virtualization Features:

- Support for Virtual Machine Device Queues (VMDq and Next-generation VMDq)
- L2 Ethernet MAC address and VLAN filters
- PC-SIG SR-IOV implementation
- Advanced Packet Filtering
- VLAN support to allow creation of multiple VLAN segments
- VXLAN through Software

#### **Compliance/Environmental**

RoHS Compliant 6/6, Pb Free



- Manageability Features:
  - Preboot eXecuation Environment (PXE) support
  - Simple Network Management Protocol (SNMP) and Remote Network Monitoring (RMON) statistics counters
- iSCSI remote boot
- OS Support:
  - Windows® Server 2012 (x64 edition)
  - Windows® 8 (x64 edition and 32-bit)
    Windows® Server 2008 R2 (x64 edition and 64-bit)
  - Windows<sup>®</sup> Server 2008 R2 (x64 edition and 64-bit)
     Windows<sup>®</sup> Server 2008 (x64 edition, 64-bit, and 32-bit)
  - Windows<sup>®</sup> Server 2008 (x64 edition, 64-bit, and 32-k
     Windows<sup>®</sup> 7 (x64 edition and 32-bit)
- Windows<sup>®</sup> 7 (x64 edition and 32-bit)
   Windows<sup>®</sup> Vista (x64 edition and 32-bit)
- Windows<sup>®</sup> Vista (x64 edition and 32-bit)
   Windows<sup>®</sup> Server 2003 (x64 edition, 64-bit, and 32-bit)
- Windows® Server 2003 (x - VMWare
- RedHat EL, SuSe SLES
- FreeBSD
- Cables Support:
  - RJ-45 Category-6 up to 55m; Category-6A up to 100m
- Operating Conditions:
- Operating temperature: 0°C to 55°C
- Physical Dimensions:
- Card PCB dimensions: 12.3cm (4.8in) x 7.0cm (2.75in) (LxW)
- Optional Accessories:
  - CBL-NTWK-0603: RJ45 CAT6A 550MHz Rated Blue 3 ft patch cable
  - CBL-NTWK-0604: RJ45 CAT6A 550MHz Rated Blue 5 ft patch cable
  - CBL-NTWK-0605: RJ45 CAT6A 550MHz Rated Blue 6 ft patch cable
  - CBL-NTWK-0606: RJ45 CAT6A 550MHz Rated Blue 9 ft patch cable
  - CBL-NTWK-0607: RJ45 CAT6A 550MHz Rated Blue 10 ft patch cable
     CBL-NTWK-0608: RJ45 CAT6A 550MHz Rated Blue 12 ft patch cable
  - CBL-NTWK-0608: RJ45 CAT6A 550MHz Rated Blue 12 ft patch cable
     CBL-NTWK-0609: RJ45 CAT6A 550MHz Rated Blue 15 ft patch cable
  - CBL-NTWK-0609: RJ45 CAT6A 550MHz Rated Blue 15 ft patch cable
     CBL-NTWK-0610: RJ45 CAT6A 550MHz Rated Blue 18 ft patch cable
  - CBL-NTWK-0610. RJ45 CAT6A 550MHz Rated Blue 18 ft patch cable
     CBL-NTWK-0611: RJ45 CAT6A 550MHz Rated Blue 21 ft patch cable
  - CBL-NTWK-0612: RJ45 CAT6A 550MHz Rated Blue 24 ft patch cable

#### Supported Platforms

- 2U Twin+: 6027TR-D70RF+, 6027TR-D71RF+, 6027TR-DTRF+, 2027TR-D70RF+
- FatTwin: F627R3-D72B+, F627R3-DTB+

For the most current product information, visit: