



ThunderLink® NQ 3402

ATTO 40GbE to Thunderbolt™ adapters provide maximum throughput for high bandwidth network connectivity for demanding IT and media & entertainment applications.

Technical Features

- Dual Thunderbolt 3 (40Gb/s USB-C) connectors
- (2) QSFP+ optical multimode modules included
- Supports 4K video file transfer and display simultaneously with dual 40Gb/s Thunderbolt 3
- Daisy chain up to five additional Thunderbolt technology enabled devices
- Backwards compatible with 20Gb/s and 10Gb/s Thunderbolt devices
- Backwards compatible with Thunderbolt 2 hosts via Apple legacy adapter
- ATTO Advanced Data Streaming (ADS™) Technology
- Minimized interrupts for low latency
- TCP, UDP and IPv4 checksum offloading and Tx/TCP segmentation offloading
- Industry's lowest power consumption
- Support for downstream USB 3.1 and 2.0 devices
- Three-year standard product warranty
- RoHS Compliant

ATTO ThunderLink® NQ 3402 Thunderbolt™ 3 to 40Gb Ethernet

Industry Proven Technology

ATTO has over 30 years of experience developing first-to-market high performance and reliable storage connectivity solutions for customers. ATTO ThunderLink® Ethernet adapters now provide creative professionals using Thunderbolt™ enabled hosts, cost effective access to storage not previously available using FireWire or USB. The integrated family of ThunderLink adapters boasts an extensive list of customer design wins and certifications with respected industry partners.

Flexible Connectivity Solutions

ATTO 40GbE adapters provide the most flexible and scalable connectivity for today's high bandwidth content creation environments. ThunderLink 40GbE adapters offer driver support for Windows® 7 and later, and macOS® Sierra and later, providing a single connectivity solution for customers with heterogeneous operating system environments.

Performance Engineered

With 40Gb data transfer rates and multiple offloads (TCP, IPv4, UDP), ATTO Ethernet Thunderbolt adapters are the premier connectivity choice for bandwidth-intensive applications such as data back-up and restoration, IP content delivery, medical imaging, and video rendering. With multi-core processors driving the need for higher bandwidth, ThunderLink 40GbE delivers superior throughput to meet that need.

Advanced Management Tools

ThunderLink 40GbE adapters provide a common foundation for both local and storage networks. ThunderLink NQ 3402 leverages standard OS management and monitoring tools to dramatically reduce the cost and complexity of a data center's administration and infrastructure.

About ATTO

For over 30 years, ATTO Technology, has been a global leader across the IT and media & entertainment markets, specializing in network and storage connectivity and infrastructure solutions for the most data-intensive computing environments. ATTO works with partners to deliver end-to-end solutions to better store, manage and deliver data.

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Applications

ATTO ThunderLink® 40GbE adapter solutions allow the unparalleled performance of 40GbE to meet the performance and economic needs of today's growing data centers. ThunderLink NQ 3402 is ideal for applications that require low latency, high-bandwidth data transfers, such as data back-up and restoration, video-on-demand and video streaming, medical imaging and clustered databases.

General Features

- Data rate per port: 40GbE
- Tx/TCP segmentation offload (Large Send Offload—LSO)
- Low latency interrupts
- PCI-SIG SR-IOV support
- Interrupt levels MSI, MSI-X
- Plug and play specification support
- Advanced packet filtering
- VLAN support with tag filtering, insertion and stripping

Advanced Software Features

- Adaptive load balancing
- Teaming support
- PCI Hot Plug/Active peripheral interconnect

Management Tools

- Easy system monitoring with Simple Network Management Protocol (SNMP) and Remote Network Monitoring (RMON) Statistic Counters
- Watchdog timer for chip/driver status monitoring

Thunderbolt Cabling

- 40Gb/s cables are designated with a "3" marking
- **Active**
 - 1M - 40 Gb/s performance
 - 2M - 40 Gb/s performance
- **Passive**
 - .5M - 40 Gb/s performance
 - 1M - 20 Gb/s performance
 - 2M - 20 Gb/s performance

Network Standards

- IEEE802.3ba (40 Gigabit Ethernet)
- IEEE 802.3az (Energy Efficient Ethernet)
- IEEE 802.1p (Priority Encoding)
- IEEE 802.1q (VLAN tagging)
- IEEE 802.3ad (Link aggregation)
- IEEE 802.1qbb (Priority flow control)
- IEEE 802.1qaz (Enhanced Transmission)
- IEEE 8023.AD (Load-balancing, failover)

Operating System Support

- Windows® 7 and later
- macOS® Sierra and later

Dimensions

- 8.66"(D) x 4.07"(W) x 1.20"(H)

Power Adapter

- 100-240VAC, 50-60Hz, 0.6A Max
- 12VDC

External Connectivity

- 40Gb/s, 10Gb/s, 1Gb/s QSFP+ MTP/MPO connectors
- Two LED indicators per port

Compliance

- FCC Part 15 Subpart B, Class A
- EN55032, Class A/EN55024
- IEC62368-1
- EN60825-1
- EN60825-2
- cTUVus
- EU RoHS (2011/65/EU), (EU) 2015/863
- TAA Compliant (Country of Origin: USA)

Operating Temperature

Hardware Environment

- Temperature: 0-40° C
- Humidity: 10 - 90% non-condensing

Storage Environment

- Temperature: -40° C to 70° C
- Humidity: 5- 95% non-condensing

Warranty

- Three years

Ordering Information

- Phone: 716-691-1999
- ThunderLink NQ 3402: TLNQ-3402-D00
- ThunderLink NQ 3402: TLNQ-3402-DE0 (UK/EMEA)

Complementary Products

- ATTO Celerity™ Fibre Channel HBAs
- ATTO ExpressSAS® HBAs and RAID Adapters
- ATTO FastFrame™ NICs
- ATTO XstreamCORE® Fibre Channel intelligent Bridges
- ATTO Thunderbolt™ adapters
- ATTO premium cables



ATTO ThunderLink	NQ 3402
Model Number	TLNQ-3402-D00 (US) TLNQ-3402-DE0 (UK/EMEA)
Input Connectors	(2) 40Gb/s Thunderbolt™ USB-C
Output Connectors	(2) 40GbE
Connector Type	QSFP+
Form Factor	Desktop
Warranty	3 Year