



ThunderLink®N3 3102

ATTO ThunderLink Thunderbolt™ 5/4/3 to 10GbE adapters provide maximum throughput for high bandwidth network connectivity for demanding IT and media & entertainment applications.

### Technical Features

- Dual Thunderbolt 5/4/3 (40Gb/s USB-C) connectors
- (2) SFP+LC optical multimode modules included
- Supports 4K video file transfer and display simultaneously with dual 40Gb/s Thunderbolt 5/4/3
- Daisy chain up to five additional Thunderbolt technology enabled devices
- Backwards compatible with 20Gb/s (Thunderbolt 2) and 10Gb/s (Thunderbolt) adapters
- Backwards compatible with Thunderbolt 2 hosts via Apple legacy adapter
- Exclusive 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 3.1v2 devices
- Three-year standard product warranty
- RoHS Compliant

## ATTO ThunderLink® N3 3102

### Thunderbolt™ 5/4/3 to 10Gb Ethernet

#### Industry Proven Technology

ATTO Technology, Inc. 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. Now, the time tested combination of ATTO and 10GbE is being integrated with the latest in cutting edge high performance Thunderbolt connectivity.

#### Flexible Connectivity Solutions

ATTO 10GbE adapters provide the most flexible and scalable connectivity for today's high bandwidth content creation environments. Growing adoption of 10GbE combined with increased bandwidth of Thunderbolt 5/4/3 delivers much-needed performance benefits to bandwidth intensive applications.

#### Performance Engineered

When faced with the challenge of architecting solutions that allow guaranteed delivery and easy deployment into your workflow, ATTO ThunderLink provides a purpose-built solution. With 10Gb/s 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 10GbE, ThunderLink 10GbE delivers superior throughput to meet that need.

#### Advanced Management Tools

ATTO ThunderLink 10GbE adapters provide a common foundation for both local and storage networks. ThunderLink N3 3102 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® 10GbE adapter solutions allow the unparalleled performance of 10 Gigabit Ethernet to meet the performance and economic needs of today's growing data centers. ThunderLink N3 3102 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: 10GbE
- 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

## External Connectivity

- 10Gb/s, 1Gb/s SFP+
- 2 LED indicators per port
- TLN3-3102 using ATTO 10G/1G SFPs
- **10G Speed:**
- 300 meters on OM3
- **1G Speed:**
- 500 meters on OM3

## Thunderbolt Cabling

- 40Gb/s cables are designated with a "3" marking

## Network Standards

- IEEE802.3ae: 10GBASE-SR, 10GBASE-LR
- 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®
- macOS®
- Linux®

## Power Adapter

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

## Compliance

- FCC Part 15 Subpart B, Class B
- EN55032, Class B/EN55024
- EN60950-1
- EN60825-1
- EN60825-2
- cTUVus
- EU RoHS (2011/65/EU)
- 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

## Dimensions

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

## Warranty

- Three years

## Ordering Information

Phone: 716-691-1999

- ThunderLink N3 3102: TLN3-3102-D00
- ThunderLink N3 3102: TLN3-3102-DE0 (UK/EMEA)

## Complimentary Products

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



ATTO ThunderLink	N3 3102
<b>Model Number</b>	TLN3-3102-D00 (US) TLN3-3102-DE0 (UK/EMEA)
<b>Input Connectors</b>	(2) 40Gb/s Thunderbolt™ USB-C
<b>Output Connectors</b>	(2) 10GbE
<b>Connector Type</b>	SFP+
<b>Form Factor</b>	Desktop
<b>Warranty</b>	3 Year