



ThunderLink® SH 3128

ATTO ThunderLink® Thunderbolt™ 3 to 12Gb/s SAS/SATA adapters provide the highest available performance for direct attached storage infrastructures.

### Technical Features

- 40Gb Thunderbolt to 12Gb SAS/SATA with support for up to 3500 disk or tape devices through expanders
- 12Gb/s SAS/SATA Support
- Dual 40Gbps Thunderbolt with Display Port, USB 3.1 and PCIe Support
- Up to 2750MB/s total throughput
- Thunderbolt certified for Mac and PC
- Dual ports enable daisy-chaining up to six devices
- Mini SAS HD high density connectors for copper and optical cable usage with cable management support
- ATTO ConfigTool™ for customized performance settings
- Proven interoperable with leading storage hardware and software vendors
- Industry's lowest power consumption
- Three-year standard product warranty
- On board ATTO PowerCenter Pro RAID 0, 1, 1e and 10 included
- RoHS Compliant
- Backwards compatible with 20Gb Thunderbolt

## ATTO ThunderLink® SH 3128 Thunderbolt™ 3 to 12Gb SAS/SATA

### Industry Proven Technology

Delivering creative, engineering and technical professionals a high performance and low latency Thunderbolt™ connectivity solution engineered for applications where optimized performance and high throughput are essential. ThunderLink® adapters enable today's Thunderbolt enabled desktop and mobile workstations to connect into high performance storage or networks. ATTO utilizes over 30 years of experience in reliable storage connectivity, history as an original Thunderbolt developer and an extensive depth in building media solutions to bring first-to-market high performance connectivity solutions to customers.

### Flexible Connectivity Solutions

12Gb SAS/SATA adapters are an ideal Thunderbolt 3 solution for users looking to achieve efficient storage scalability. The integrated family of ThunderLink adapters boasts an extensive list of customer design wins and certifications with respected industry partners including the latest LTO-8 tape drives.

### Performance Engineered

12Gb SAS/SATA adapters are designed to provide flexible connectivity to SAS/SATA storage, and are engineered to manage latency for real-time environments. ATTO Advanced Data Streaming (ADS™) Technology maximizes CPU processes to deliver smooth and reliable data transfers and the highest consistent performance. ATTO pays close attention to detail in board design and signal integrity to minimize transmission errors and data corruption. These differentiating capabilities make ATTO the premier choice for high-performance direct-attached SAS/SATA storage connectivity.

### Advanced Management Tools

Easy-to-use ATTO ConfigTool™ features an intuitive GUI that simplifies the installation, management and monitoring of the Thunderbolt adapter. With advanced troubleshooting and performance tuning capabilities, ConfigTool provides users with sophisticated diagnostics and the flexibility to control settings for specific applications.

## 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® SAS/SATA adapters deliver high-performance and reliable connectivity solutions for the most demanding storage environments, including digital content creation, tape streaming and backup, rich content delivery, server clustering, and complex databases. ATTO ThunderLink SAS/SATA adapters enable users to achieve the ultimate in I/O performance for real-time and transactional applications.

## Key Features

- 12Gb/s SAS/SATA Support
- Auto Negotiation between 12Gb/s, 6Gb/s and 3Gb/s SAS/SATA devices
- Supports Serial SCSI Protocol (SSP), SATA Tunneling Protocol (STP, SMP, SAT and direct attached SATA protocol
- SES and S.M.A.R.T. support
- Flash ROM for easy field updates
- Wide port end device support
- Support for SAS tape devices and transport layer retries (TLR) for error handling

## User Benefits

- Highest available MB/s and IOPS performance
- Superior system performance with latest SAS/SATA technology
- Low power consumption
- Locking power supply
- Kensington Security Slot

## Management Tools

- ConfigTool™ (w/GUI) management and configuration utility
- Command Line Interface for advanced functionality

## Operating System Support

- macOS®
- Windows®
- VMware®

## Dimensions

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

## Power Adapter

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

## External Connectivity

- (2) 12Gb x4 mini-SAS HD connectors (SFF-8644)

## Environmental

### Operating Temperature

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

### Storage Temperature

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

## Compliance

- FCC Part 15 Subpart B, Class B
- EN55032, Class B/EN55024
- EN60950-1
- cTUVus
- EU RoHS (2011/65/EU)
- TAA Compliant (Country Of Origin: USA)

## Warranty

- Three years

## Ordering Information

- Phone: 716-691-1999
- ThunderLink SH 3128: TLSH-3128-D00
- ThunderLink SH 3128: TLSH-3128-DE0 (EMEA)

## Complementary Products

- ATTO Celerity™ Fibre Channel HBAs
- ATTO ExpressSAS® HBAs
- ATTO FastFrame™ NICs
- ATTO XstreamCORE® Fibre Channel Bridges
- ATTO premium cables



ATTO ThunderLink® Adapter	SH 3128
<b>Model Number</b>	TLSH-3128-D00 TLSH-3128-DE0
<b>Input Connectors</b>	(2) 40Gb/s Thunderbolt
<b>Output Connectors</b>	(2)x4 12Gb SAS/SATA
<b>Connector Type</b>	(2) SFF-8644
<b>Form Factor</b>	Desktop
<b>Warranty</b>	3 Year