

## Connecting Lenovo ThinkPad® Mobile Workstations to External Storage with ATTO ThunderLink® Thunderbolt™ Adapters

### LENOVO™ THINKPAD® MOBILE WORKSTATIONS

- P71™
- P52s and P51™



### ATTO THUNDERLINK® THUNDERBOLT™ ADAPTERS

- TLSH 3128 – Thunderbolt 3 to Dual Port 12Gb SAS/SATA
- TLNQ 3402 – Thunderbolt 3 to Dual Port 40Gb Ethernet
- TLNQ 3401 – Thunderbolt 3 to Single Port 40Gb Ethernet
- TLNS 3102 – Thunderbolt 3 to Dual Port 10Gb Ethernet
- TLNS 3101 – Thunderbolt 3 to Single Port 10Gb Ethernet



ATTO ThunderLink  
NS 3101



ATTO ThunderLink  
SH 3128

### SUPPORTED OPERATING SYSTEMS

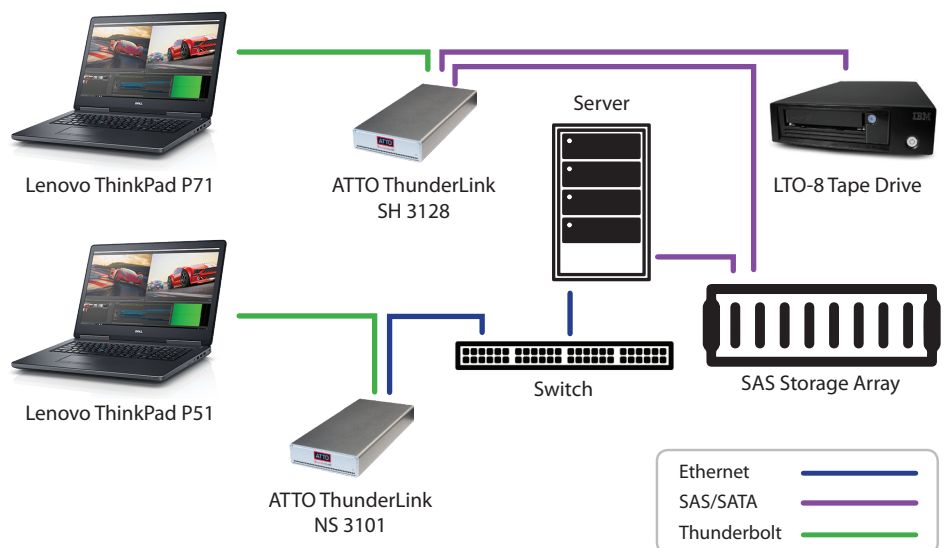
- Windows® 10 Professional

### EXCEPTIONAL CONNECTIVITY OPTIONS FOR THE MOST DEMANDING WORKFLOWS

Mobile workstation performance and features are providing users more flexibility when it comes to completing tasks that were once reserved for their desktop counterparts. These same specialized, intensive applications used for media & entertainment, engineering and architecture, oil & gas, application and game development, imaging and healthcare require mobile workstations that are outfitted with powerful graphics, processors and memory. High performance, low latency connectivity to storage is also a must have.

With the ability to handle a variety of file formats, media ingest and asset offload to storage or network pooled storage, Lenovo™ workstations and ATTO provide a reliable, high-performance and capable solution so you can focus on what is most important, your art.

I/O options have expanded and Thunderbolt™ 3, is a fantastic new technology that offers up to 40Gb throughput to peripheral devices. More importantly, it brings versatility to traditionally limited mobile computers. It is changing how mobile users think about external storage by opening up many new high performance workflow use cases. Rendering, simulation, visualization, deep learning and artificial intelligence are all examples of use cases that can benefit from the low latency- high performance connectivity to storage that ATTO ThunderLink® adapters offer when connected to a Lenovo ThinkPad® P series mobile. It is possible to connect the high performance mobile workstations to high performance block level SAS devices such as JBODS, external RAID systems and SAS tape.



Being able to connect mobile workstations to external SAS /SATA arrays at up to 2750 MB/s can tremendously improve productivity. Larger projects can easily be stored and protected using RAID. Faster data transfer rates compared to other I/O interfaces along with SAS block level transfers to multiple SSDs can make the workflow even more efficient.

Lenovo™

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### LEARN MORE

#### ATTO Thunderbolt Adapters

<https://www.atto.com/products/thunderbolt-adapters>

#### Lenovo Workstations

<https://www.thinkworkstations.com/>

### HOW TO BUY

#### ATTO

<https://www.atto.com/howtobuy/6/resellers/united-states>

#### Lenovo

<https://www3.lenovo.com/us/en/landingpage/workstations/#sec1>

The value of tape has increased since the introduction of Linear Tape File System (LTFS). LTFS is a format that allows data to be written to tape so that it can be read anywhere with open source LTFS software. One benefit is that LTFS indexes the tape and makes it searchable so that files can be retrieved much faster. Users can browse contents and drag and drop files from a desktop or folder directly to and from tape just as with a hard drive or thumb drive. Tape stored files can be shared with any Windows or Linux users who have LTFS installed on their system, regardless of what version or manufacturer of LTO drive they own. LTO tape also supports encryption features which helps to secure data that's in transit.

When you take into consideration all the benefits of Thunderbolt™ I/O to SAS/SATA devices make a lot of sense. Thunderbolt can transfer larger amounts of data to the same amount of time. The speed and efficiency of Thunderbolt moves data more quickly and economically than over a network/Internet. This is ideal for applications that produce terabytes of data on a daily basis.

- ATTO ThunderLink® Thunderbolt 3 adapters combine a new balance of mobility, simplicity, flexibility and performance with up to 2750 MBytes/Sec throughput.
- ATTO Advanced Data Streaming Technology (ADS™) Technology provides controlled latency and acceleration of data for consistently high performance
- ATTO ConfigTool™ - GUI-based utility to locally or remotely manage and monitor the multiple data paths between the workstations and the storage. Helps customize the settings of your ATTO ThunderLink to maximize the performance of your storage connections. Easily identify problem areas to expedite troubleshooting efforts
- ATTO tested compatibility.  
Visit <https://www.atto.com/support/interoperability/> for details.

*ATTO Technology, Inc. has been developing high performance, low latency storage connectivity solutions for the workstation market for 30 years. ATTO Thunderbolt 3 adapters are designed to answer the ever growing storage performance needs of the workstation user for local and backup storage.*

**Lenovo**™