Technical Bulletin



Overcoming when an ATTO Thunderbolt[™] adapter may become non-responsive

January 2020

Scenario:

The ATTO ThunderLink[®] may become non-responsive but may still appear available within the macOS. This also may occur with an ATTO FastFrame NIC in a third-party Thunderbolt chassis. This only occurs when the ATTO product is connected to a Mac using Thunderbolt Route String 3 AND any additional Thunderbolt device is connected to the Mac on Route String 1. A reboot of the Mac or Thunderbolt device will clear the issue, but it is likely to occur again.

ATTO Products Affected:

ATTO ThunderLink TLNS-3102, TLNS-3101, TLN3-3102, TLNS-3252, TLNQ-3402 and TLNQ-3401 ATTO FastFrame FFRM-NQ41, FFRM-NQ42, FFRM-N322, FFRM-N351 and FFRM-N352 when placed in a third party Thunderbolt 3 chassis.

Apple Mac Systems where the issue occurs:

Mac systems with Alpine Ridge Thunderbolt 3 chips. This includes MacBook Pro (2016), iMac Pro (2017), iMac (2017) & iMac (2019).

Mac systems that utilize the Titan Ridge Thunderbolt 3 chips have not presented this issue. If you are having trouble identifying if your Mac uses an Alpine Ridge or Titan Ridge Thunderbolt chip look at the Apple Specifications for the Thunderbolt ports. Alpine Ridge supports Display Port version 1.2 while Titan Ridge supports Display Port 1.4.

To Prevent the Issue:

The issue does not seem to occur if the ATTO product is connected to Thunderbolt Route String 1 on the Mac.

Macs that have two Thunderbolt ports use a single chip that is split into Route String 1 and Route String 3. Macs that have four Thunderbolt ports use two chips, each having a Route String 1 and Route String 3. Please refer to the drawings below to identify the proper port for connecting ATTO products.

MacBook Pro 15in 2016						
Thunderbolt Bus 0 Thunderbolt Bus 1		bolt Bus 1				
Left Side Back Port	Left Side Front Port	Right Side Front Port	Right Side Back Port			
Route String 3	Route String 1	Route String 3	Route String 1			
3rd Party Vendor	ATTO	3rd Party Vendor	ATTO			



MacBook Pro 13in 2016				
Thunderbolt Bus 0				
Left Side Back Port	Left Side Front Port			
Route String 3	Route String 1			
3rd Party Vendor	ATTO			



Use for ATTO

iMac Pro 2017						
Thunderbolt Bus 0		Thunderbolt Bus 1				
Left TB Port	Left Middle TB Port	Right Middle TB Port	Right TB Port			
Route String 3	Route String 1	Route String 3	Route String 1			
3rd Party Vendor	ΑΤΤΟ	3rd Party Vendor	ΑΤΤΟ			



USB 3

Thunderbolt 3 (USB-C) Charge devices; connect and high-performance pr

iMac Pro 2019				
Thunderbolt Bus 0				
Left Side Port	Right Side Port			
Route String 3	Route String 1			
3rd Party Vendor	ATTO			

Use for ATTO Use for ATTO Headphone Ethernet Power button SDXC Thunderbolt 3 (USB-C) USB 3 October 2010 Charge devices; connect external displays and high-performance peripherals. To verify if the ATTO product is connected to a Thunderbolt Route String 1 port:

- Go to the macOS System Information
- Select Thunderbolt
- Select the Thunderbolt Bus that the ATTO product is attached to.
- Look under the "ThunderLink" in question and look for "Route String". See highlighted section below.

	MacBook Pro	
▼ Hardware		
ATA	Thunderbolt Device Tree	
Apple Pay	▼ Thunderbolt Bus 0	
Audio	ThunderLink NS 3102	
Bluetooth	ThunderLink FC 3322	
Camera	Thunderbolt Bus 1	
Card Reader		
Controller		
Diagnostics	Thunderbolt Bus 0:	
Disc Burning	Vendor Name: Apple Inc.	
Ethernet Cards	Vendor Name: Apple Inc. Device Name: MacBook Pro	
Fibre Channel	UID: 0x00015A46E0289000	
FireWire	Route String: 0	
Graphics/Displays	Firmware Version: 41.2	
Hardware RAID	Domain UUID: 3D09B278-2F2D-425E-8241-E57DCA030472 Port:	
	Status: Device connected	
Memory NVMExpress	Link Status: 0x2	
PCI	Speed: Up to 40 Gb/s x1	
PCI Parallel SCSI	Current Link Width: 0x2	
	Receptacle: 2 Link Controller Firmware Version: 0.39.0	
Power	Enix Controller Filmware Version: 0.39.0 Port:	
Printers	Status: Device connected	
SAS	Link Status: 0x2	
SATA/SATA Express	Speed: Up to 40 Gb/s x1	
SPI	Current Link Width: 0x2 Receptacle: 1	
Storage	Cable Firmware Version: 0.9.0	
Thunderbolt	Link Controller Firmware Version: 0.39.0	
USB		
) ▼ Network	ThunderLink NS 3102:	
Firewall	Vendor Name: ATTO Technology, Inc.	
Locations	Device Name: ThunderLink NS 3102	
Volumes	Vendor ID: 0x1F	
WWAN	Device ID: 0x15	
Wi-Fi	Device Revision: 0x1	
▼ Software	UID: 0x001F87DCF4B91100 Route String: 1	
Accessibility	Firmware Version: 33.5	
Applications	Port (Upstream):	
Components	Status: Device connected	
Developer	Link Status: 0x2	
Disabled Software	Speed: Up to 40 Gb/s x1 Current Link Width: 0x2	
Extensions	Link Controller Firmware Version: 0.35.0	
Fonts	Post-	

For more information, please contact ATTO Technical Support at +1 716 691 1999, extension 242, or via email to <u>TechSupp@attotech.com</u>