![ATTO Technology, Inc.]

Product Release Notes

ThunderLink® FC 2082/2162 and 3322/3162 Release 2.25 - macOS®

1. General Release Information

These product release notes define the new features, changes, known issues and release details that apply to the ThunderLink FC 2082/2162 and FC 3322/3162 Fibre Channel Thunderbolt Adapters, version 2.25, which was released on December 18th, 2017. This information pertains to macOS® 10.10 and later.

2. Changes

- *Version 2.25 (Released 12/18/2017)*
    - **Note:** It is recommended that the latest flash bundle available on ATTO website be utilized with this driver release.
    - **New Features/Enhancements**
        - Added atdevinfo, atfcinfo, and atlocate CLI tools to the release package

- *Version 2.20 (Released 09/25/2017)*
    - **Note:** It is recommended that the latest flash bundle available on ATTO website be utilized with this driver release.
    - **New Features/Enhancements**
        - Fixed a potential error when doing extended link bounce testing
        - Increased stability during tape I/O
        - Improvements to scheduling and processing device management
        - Changed the method for reporting device changes to macOS

- *Version 2.16 (Released 05/03/17)*
    - **New Features, Enhancements and Changes**
        - Added support for atinfo to display the SFP serial number

- *Version 2.10 (Released 12/20/16)*
    - **New Features, Enhancements and Changes**
        - Added link cable beacon feature
        - Improved the speed of reporting devices to the OS
        - Adjusted the default maximum transfer size to 512KB to improve third party storage controller performance

- *Version 2.05 (Released 09/20/16)*
    - **New Features, Enhancements and Changes**
        - Added support for macOS Sierra
        - Added *'-t <number>'* option to system NVRAM parameters to change the number of targets.

- *Version 2.00 (Released 06/30/16)*
    - **New Features, Enhancements and Changes**
        - Added rotational logging to the event log.

- *Version 1.15 (Released 08/06/15)*
  - **New Features, Enhancements and Changes**
    - Adjusted the format of the flash revision to MM/DD/YYYY to conform to other drivers format
    - Fixed processing of the max transfer size values set by the Config Tool
    - The event logging service has been improved to use less system resources
    - Added support for the T10-PI setting in atfcnvr.

- *Version 1.10 (Released 03/16/15)*
  - **New Features, Enhancements and Changes**
    - Implemened a feature for FCP_RSP underrun only when the FCP_RSP frame indicates that the RSP_INFO data is present
    - Added support for PLOGIs in direct P2P after the initialization sequence is complete.

- *Version 1.05 (Released 10/30/14)*
  - **New Features, Enhancements and Changes**
    - Addition of operating system Mac OS 10.10
      - Corrected an issue where a cable pull could result in I/O failure in MultiPath Director instead of failing over to an alternate path.
      - Addressed resource and performance issues concerning the number of logins being generated by NPIV ports.
      - Addressed a firmware issue causing an error when two or more NPIV ports are querying a switch.
      - Changed the default setting for the LoginToTargetsOnly HW parameter to DISABLED.
      - Addressed an issue where firmware is unable to sustain a chip reset while I/O is in progress.

- *Version 1.00 (Released 09/02/14)*
  - **New Features, Enhancements and Changes**
    - Initial release of Mac OS driver for the ThunderLink FC 2082 and 2162 devices.

3. Known Issues/Advisements

- When interfacing the ATTO ThunderLink 2082 to a 16Gb Fibre Channel switch that uses SFP+ transceivers from Avago (including Avago SPFs re-branded by a switch manufacturer), a link-up delay of up to 60 seconds may be observed if the switch port is set to auto-speed detect. To rectify the delay, set the speed of the interfacing switch port to 8Gb. Avago Part #: 57-000088-01
- macOS High Sierra has introduced User-Approved Kernel Extension Loading. For additional information on this update, please visit: http://developer.apple.com/library/content/technotes/tn2459

4. Affected Products

Product Name	SKU
ThunderLink FC 2082	TLFC-2082-D00/DE0
ThunderLink FC 2162	TLFC-2162-D00/DE0
ThunderLink FC 3322	TLFC-3322-D00/DE0
ThunderLink FC 3162	TLFC-3162-D00/DE0

5. Contacting ATTO Support

ATTO Technology, Inc. is renowned for its technical support services. ATTO's goal is to provide you the quickest response possible for your technical support needs, and is available Monday-Friday, 8:00 AM to 8:00 PM EST (except holidays and plant closings).

ATTO Technical Support can be contacted via phone or email:

- Phone: 716.691.1999 ext. 242
- E-Mail: techsupport@attotech.com