



ATTO Configuration Tool v4.41 – macOS®

1. General Release Information

The ATTO Configuration Tool helps you customize the settings of your ATTO Storage Controller to maximize the performance of your storage connection. While the factory settings on your host adapter should provide excellent performance for a wide range of applications, some specialized applications may benefit from modification of the adapter settings to tune the adapter for a specific performance range.

These product release notes define the new features, changes, known issues and release details that apply to the ATTO Configuration Tool v4.41 that was released May 9th, 2024. This information pertains to macOS® 14, 13, and 12

2. Changes

- **Version 4.41 (Released 5/09/2024)**

- The following apply to changes made from v4.40 to v4.41. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features**
 - Added CLI support for ExpressSAS H24F0, H240F, and H240N
 - **Incident Resolutions/Bug Fixes/Changes**
 - N/A

- **Version 4.40 (Released 10/3/2023)**

- The following apply to changes made from v4.39 to v4.40. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features**
 - Add support for macOS 14 Sonoma
 - **Incident Resolutions/Bug Fixes/Changes**
 - NA

- **Version 4.39 (Released 2/14/2023)**

- The following apply to changes made from v4.38 to v4.39. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features**
 - Updated installer
 - **Incident Resolutions/Bug Fixes/Changes**
 - N/A

- **Version 4.38 (Released 06/23/2022)**

- The following apply to changes made from v4.37 to v4.38. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - General Updates

- Bug fixes
- **Version 4.37 (Released (01/30/2022))**
- The following apply to changes made from v4.36 to v4.37. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - General bug fixes
- **Version 4.36 (Released (06/30/2021))**
- The following apply to changes made from v4.35 to v4.36. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Add support for configuring MaxTransferSize with H12xx GT adapters
 - Report the driver version from the CLI tool API instead of the system
- **Version 4.35 (Released (10/14/2020))**
- The following apply to changes made from v4.34 to v4.35. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Add support for the latest ATTO SAS Adapters
 - Add support for latest macOS updates
- **Version 4.34 (Released (07/13/2020))**
- The following apply to changes made from v4.30 to v4.33. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Add support for the latest FlashBundlesVersion
- **Version 4.33 (Released (05/31/2019))**
- The following apply to changes made from v4.30 to v4.31. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - General Bug Fixes
- **Version 4.31 (Released (05/22/2019))**
- The following apply to changes made from v4.30 to v4.31. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Added support for OpenJDK 11
 - Added support for Ultra High Definition Monitors
 - Incident fixes
 - Added support for ATTO part numbers, FFRM-N322, TLNS-3252, and TLN3-3102
 - Ended support for SLES 11
- **Version 4.30 (Released (11/05/2018))**
- The following apply to changes made from v4.29 to v4.30. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**

- Max transfer values range is now limited to [64K, 8MB]
 - Add the Adaptive Device Wait NVRAM and Boot Device Wait NVRAM setting for 12Gb adapters
 - Enabled PowerCenter Pro on TLSH 3128
- **Version 4.29 (Released 06/11/2018)**
 - The following apply to changes made from v4.28 to v4.29. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Users upgrading from the 2017_12_13 firmware to the latest version will be allowed to only update to the flash bundle dated 2018_01_30 before updating to the latest firmware.
 - Updates to the CLI tools in the diagnostics package, including support for TLSH 3128
- **Version 4.28 (Released 04/16/2018)**
 - The following apply to changes made from v4.27 to v4.28. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Added support for FastFrame N351, N352, N311 and N312 (25/50/100GbE)
 - Added support for ThunderLink SH 3128
- **Version 4.27 (Released 08/3/2017)**
 - The following apply to changes made from v4.26 to v4.27. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Support added for ATTO FC-324E
 - Support added for H12XX
 - Java 8 is now bundled on macOS
- **Version 4.26 (Released 03/28/2017)**
 - The following apply to changes made from v4.25 to v4.26. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Updated macOS™ service installer with the current security certificate.
 - Suppress the “uninitialized disk” popup boxes for the standin multipath disks created by the driver
 - Update the driver info fields when a NIC driver loads or unloads
 - Fixed a cosmetic repainting bug when the MP driver doesn't report all LUNs
- **Version 4.25 (Released 02/20/2017)**
 - The following apply to changes made from v4.24 to v4.25. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Removal of expansion and migration features
 - Updated the driver information fields when a NIC driver loads or unloads
- **Version 4.24 (Released 09/27/16)**
 - The following apply to changes made from v4.23 to v4.24. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Added support for ThunderLink 3101/3102 devices
 - Added support for ThunderLink 3162/3322 devices

- Fixed an error that occurred when saving the MP LUN configuration for LU enabled devices
- **Version 4.23 (Released 06/30/16)**
 - The following apply to changes made from v4.22 to v4.23. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Added support for FastFrame 10Gb and 40Gb NICs
 - Added support for Celerity Gen 6 16Gb/32Gb FC HBAs
 - Added support for LUN-based multipathing
- **Version 4.22 (Released 10/16/15)**
 - The following apply to changes made from v4.21 to v4.22. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - The event log is now cleared before running “dumpconfiguration” in the diagnostics for VDA based adapters.
- **Version 4.21 (Released 09/10/15)**
 - The following apply to changes made from v4.20 to v4.21. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - SSD and HBA passthrough mode has been enabled for RAID devices.
- **Version 4.20 (Released 08/06/15)**
- The following apply to changes made from v4.19 to v4.20. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
 - **New Features, Enhancements and Changes**
 - Added T10-DIF support for 8Gb and 16Gb FibreChannel NVRAM
 - Support for Windows 10
 - Integrated an NVRAM toggle to 12Gb HBA to disable Power Center Pro
 - Added single member JBOD support to 6Gb RAID
 - Added functionality to collect the Windows system log in text format with the diagnostics
 - Run atnetstat with the OS X diagnostics
 - Increased support by logging a message that RAID can be disabled if an I/O error blocks a device on the 12Gb HBA
- **Version 4.19 (Released 03/25/15)**
 - The following apply to changes made from v4.18 to v4.19. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Integrate technical support’s FastFrame script into the OS X diagnostic scripts
 - Added functionality of atdevinfo to the diagnostic scripts
 - Support to hide the multiplexing NVRAM option for all SAS adapters
 - Fixed a timing hole where the RAID menu state may have gotten out of sync with the firmware with respect to the RAID operation
 - Improved enclosure handling on the 4808
 - Improved clarity of desktop icons
 - Enhanced the member table with filtering hyperlinks and animated warning icons
- **Version 4.18 (Released 02/05/15)**

- The following apply to changes made from v4.17 to v4.18. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added HBA Combo Mode support to ATTO 6Gb RAID products
 - Added support for the NS11, Thunderbolt SH 2068 and SC 4808D
 - Added functionality to collect driver and firmware traces (where supported)
 - Added functionality to collect legacy driver logs (i.e. those with a log daemon) on OS X 10.9 and later
 - Non-ATTO drivers are now displayed in the GUI (for NIC adapters)
 - Temperature readings are now only attempted for ATTO devices
 - The 'sender address' field is now required when configuring email notifications
 - The AutoRebuild function has been disabled for firmware supporting Combo Mode
 - Added support for TLSv1
- **Version 4.17 (Released 10/8/14)**
 - The following apply to changes made from v4.16 to v4.17. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Modified the "Find Host" dialog to automatically remember entered hosts and offer an auto-completion mechanism. Also, a new "Delete Hosts" dialog is available from the "Network" menu, and saved hosts are automatically discovered upon launch.
 - Added the 'MaxXferSize' control to the "Advanced" tab panel.
 - An error message is now displayed if the email configuration settings are invalid.
 - A caret is now displayed in the RAID CLI tab.
 - The temperature is now logged for all RAID adapters on driver load and firmware restart
 - Old drivers are now supported when using RAID 50/60 enabled firmware
 - The OS X installer is now signed using the v2 certificate to conform to GateKeeper requirements on 10.9.5 and 10.10
 - The LLI Moderation NVRAM setting is now properly interpreted
 - The 'atmpinfo' CLI tool in the diagnostics package has been updated
 - The notification applet is now installed on OS X 10.10
- **Version 4.16 (Released 8/5/14)**
 - The following apply to changes made from v4.15 to v4.16. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Added support for RAID 50 and RAID 60
 - Added support for the ThunderLink FC 2082
 - Split the RAID MIB into 4 separate MIBs, with updated RAID 50/60 support
 - GUI will now scroll the RAID tab's Drive Table to the selected drives when groups or members are selected
 - Now append the hostname to the notification email's subject line
 - Collect *atsastop* and *atsasphy* diagnostics for the RAID adapters
 - Log adapter name and PCI info when an adapter driver is loaded
 - Preserve the existing options when changing the multipathing load balancing policy
 - Overwrite all email recipient fields when restoring the notification configuration
 - Improved messaging when an error occurs updating the flash
 - Make the multipath target name in the tree consistent with *atmpinfo*
 - Start a group rebuild prior to prompting to replace members
 - Add a drive counter to the drive drop table in the various RAID wizards
 - A bad hostname to service principal name conversion no longer blocks access to the host via username/password login
- **Version 4.15 (Released 5/22/14)**

- The following apply to changes made from v4.14 to v4.15. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added support for logging VSA events.
 - We now explicitly check for the 'attobus' service to ensure that multipathing and diagnostic information are collected with MPDirector v1.40, and later.

Version 4.14 (Released 5/2/14)

- The following apply to changes made from v4.13 to v4.14. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added support for new ATTO products: NT2012, NS2162 and Thunderlink FC 2162.
 - User can now enable or disable Apple multipathing to Thunderlink FC 1082 and 2162.
 - Modified application behavior so that the Multipath Director node is created when a multipathing driver is discovered.
 - CLI tools are now packaged in the diagnostics package.
 - An error message when saving a (multipath) path is no longer clobbered by successfully saving the next path.
 - Modified behavior to allow Apple multipathing to be re-enabled via the GUI, for devices that support the control.
 - The OS X application bundle is digitally signed.
 - Service now displays "replaced" and "failed" device status for firmware that reports it.
 - Added a warning for users to backup RAID groups before converting.
 - Added a notification for scheduled or canceled shutdowns is given on platforms that do not do this natively.
 - Added menu items to rescan multipathing targets and controllers.
 - Added the ability to remember login passwords.
 - Driver logs are collected by the diagnostic scripts on OS X 10.9 and later.
 - Corrected an issue where diagnostics failed on Mac OS X 10.9.2

- **Version 4.13 (Released 1/16/14)**

- The following apply to changes made from v4.12 to v4.13. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Support for PowerCenter Pro has been added
 - Support for GT and 12Gb HBAs has been added to the diagnostic scripts
 - The packaged CLI tools have been updated to the latest available version
 - RAID group names are handled in a case sensitive manner
 - Resolved an issue where ConfigTool Drive Metrics keep going even if an enclosure is unplugged.
 - Fixed a problem where SNMP MIB information is incorrect for "raidMemberTable"

- **Version 4.12 (Released 10/28/13)**

- The following apply to changes made from v4.11 to v4.12. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added support for Mac OS X 10.9 (Mavericks)
 - Resolved an issue with link speed and topology are being marked "unknown" when connected to a 16Gb FibreConnect switch
 - Fixed issue where help text hyperlinks were not working
 - Fixed issue where help text does not open browser when clicking on website link

- **Version 4.11 (Released 06/27/13)**

- The following apply to changes made from v4.10.1 to v4.11. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added a checkbox on the RAID group Properties panel that indicates the RAID group is bootable.
 - Added a toggle control on the Advanced Tab to disable the native multipathing feature.
 - The SES information is now properly displayed for a Fibre Channel enclosure.
 - Resolved a hardware buzzer issue.
 - The system log opens properly so that messages appear in the system log.
- **Version 4.10.1 (Released 04/23/13)**
 - The following apply to changes made from v4.10 to v4.10.1. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Resolved an issue where a security update to Java on Mac OS X platforms caused a malfunction in the notification applet.
- **Version 4.10 (Released 03/12/13)**
 - The following apply to changes made from v4.09 to v4.10. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Added support for dual domain devices
 - Added support for SSD RAID groups
 - Added support for maintaining health profile data for drive that use special characters in their serial number or other vital information
 - Added support to collect RAID firmware crash data
 - The SES slot number on the adapter drive table is displayed instead of SAS address
 - The name and type of device are properly indicated in the tree with multipathing
 - Devices are properly removed from the tree upon a cable pull
 - The S.M.A.R.T. data dialog no longer refuses to open with a message about the file being missing if the drive uses all 16 bytes of PRODUCT or all bytes of VENDOR area
 - The drive properties page has been rearranged so that all port addresses can be displayed
 - SAS or SATA is now indicated on the RAID drive properties page
 - An additional SNMP table is now provided to relay dual domain information
 - S.M.A.R.T. attributes are no longer validated, since some drives report values that are out of range which may cause the S.M.A.R.T. data dialog box from being displayed
 - Resolved an issue where the notification applet blinks when muted if the hardware buzzer is disabled
 - Resolved an issue where RAID firmware sends an un-terminated log message, causing a system crash
 - Any number of hotspares can now be created using the hotspare wizard. Also, the block size of the disks are now validated during member replacement and local hotspare creation
- **Version 4.09 (Released 11/29/12)**
 - The following apply to changes made from v4.08 to v4.09. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Devices can be added/removed in a rapid fashion without consequence
 - The adapter buzzer now sounds for non-Thunderbolt adapters when clicking the notification test button
- **Version 4.08 (Released 11/08/12)**

- The following apply to changes made from v4.07 to v4.08. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
- **New Features, Enhancements and Changes**
 - Added process power management events from the ESASRAID driver
 - Activated the on-board buzzer on the adapter that triggered a buzzer event only
 - Added detect mute button events from ThunderStream products
 - Resolved a timing related crash on shutdown if SNMP is enabled
 - Resolved a crash when committing the Notifications Plane contents with an email password
 - Resolved conflict with StorNext
 - Made changes to the operating system display for Mac OS X 10.8
- **Version 4.07 (Released 09/28/12)**
 - The following apply to changes made from v4.05 to v4.07. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Removed the discovery mode option in the NVRAM panel for a 16Gb Celerity FC adapter.
- **Version 4.05 (Released 08/13/12)**
 - The following apply to changes made from v4.03v2 to v4.05. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Added support for ATTO desklink devices.
- **Version 4.03v2 (Released 07/25/12)**
 - The following apply to changes made from v4.03 to v4.03v2. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Mac OS X Mountain Lion (10.8) Support.
- **Version 4.03 (Released 04/23/12)**
 - The following apply to changes made from v4.02 to v4.03. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Thunderbolt support has been added for the Apple OS X platform, for all compatible devices.
 - The “Command-click” operation on Apple OS X platforms will now select RAID members.
 - Multiple RAID Management menus do not appear when a Thunderbolt cable is unplugged, for Apple OS X platforms.
 - The multipathing adapters are now initialized after a thunderbolt cable is inserted.
 - The installer now makes the application available to all users.
 - Several freezes in the system service have been resolved.
 - Several crashes related to the auto discovery system were resolved.
- **Version 4.02 (Released 02/14/12)**
 - The following apply to changes made from v4.01 to v4.02. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - SNMP support has been added.

- Help menu now features a 'Run Diagnostics' option for troubleshooting purposes, which displaces the former option to save logs under the Notifications panel. RAID logging has also been improved.
 - Support for FastFrame CT and NT adapter series has been added.
 - Gen 3 PCIe transfer rate support has been added.
 - Hot spares can now be assignable to RAID groups via CLI.
 - Support for sounding the buzzer on buzzer-equipped hardware, controllable by the Notification Application.
 - Performance, stability and logging improvements.
- **Version 4.01 (Released 09/06/11)**
 - The following apply to changes made from v4.0 to v4.01. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - The integrated help text features new icons for the buttons the user can click as well as manipulate in the table of contents.
 - This release offers improved support and functionality with 3Gb RAID adapters.
 - Rare instances of system hangs have been resolved.
- **Version 4.0 (Released 08/17/11)**
 - The following apply to changes made from v3.38 to v4.0. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
 - **New Features, Enhancements and Changes**
 - Support for ExpressSAS H6F0GT.
 - This release represents a major update to the GUI interface and capabilities. Whereas previous versions contained a single application, this release provides a GUI application and system service. Refer to the product manual for more information on the setup and operation of these components.
 - This release offers the ability to set-up, manage and optimize storage connected locally and remotely to ATTO storage controllers. This includes the ability to remotely access and update NVRAM settings, updating system firmware and drivers, as well as retrieving system event logs.
 - Only one instance of the ConfigTool can be installed on a host at any one time (i.e. either v3.38 **or** v4.0, but not both).
 - This version does not have SNMP enabled. Use an earlier version of the ATTO ConfigTool if you require SNMP.

3. Known Advisements

1. The ConfigTool client doesn't detect when it has been disconnected from a daemon
2. The Notifications tab can be viewed and changed without logging into a host.
3. There is no way to disconnect from a remotely connected host unless the user terminates the ConfigTool
4. Cannot right-click on the system tray icon on macOS
5. The ConfigTool may hang when running the diagnostics package when an R680 is in a bad state
6. Volumes are not displayed when using Multipathing and Windows Server 2012
7. An invalid MaxXferSize may be set on CelerityFC adapters
8. The audible and visual notifications only work with the system service on the local machine (not remotely).

4. Affected Products

ATTO ConfigTool for the following ATTO products:

- Celerity 64Gb FC-642E, FC-641E
- Celerity 32Gb FC-324E, FC-322E, FC-321E, FC-321P, FC-322P, FC-324P

- Celerity 16Gb FC-164E, FC-162E, FC-161E, FC-164P, FC-162P, FC-161P
- Celerity 8Gb FC-84EN, FC-82EN, FC-81EN
- ExpressNVM S48F, S4FF
- ExpressSAS 24Gb HBAs ESAH-24F0, ESAH-240F, ESAH-240N
- ExpressSAS 12Gb HBAs ESAH-1208, ESAH-120F, ESAH-1244, ESAH-1280, ESAH-1288, ESAH-12F0
- ExpressSAS 12Gb HBAs ESAH-1208GT, ESAH-1280GT, ESAH-120FGT, ESAH-12F0GT, ESAH-1244GT
- ExpressSAS 6Gb HBAs ESAS-H608, ESAS-H644, ESAS-H680
- ExpressSAS 6Gb RAID ESAS-R608, ESAS-R60F, ESAS-R644, ESAS-R680
- FastFrame N422, N4S2, N4T2 and N412
- FastFrame 40Gb NICs FFRM-NQ41, FFRM-NQ42
- FastFrame 25/40/50/100Gb NICs FFRM-N311, FFRM-N312, FFRM-N322, FFRM-N351, FFRM-N352
- ThunderLink FC TLFC-2082, TLFC-2162, TLFC-3162, TLFC-3322
- ThunderLink NQ TLNQ-3401, TLNQ-3402
- ThunderLink NS TLNS-2101, TLNS-2102, TLNS-3101, TLNS-3102, TLNS-3252
- ThunderLink NT TLNT-2102
- ThunderLink SH TLSH-2068, TLSH-3128
- ThunderLink N3 3102

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@atto.com