



ATTO Technology, Inc.

## Product Release Notes

# Celerity 16Gb Gen 5 and 16Gb/32Gb Gen 6 Fibre Channel Release v1.60.1– Microsoft® Windows®

## 1. General Release Information

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These product release notes define the new features, changes, known issues and release details that apply to the Celerity 16Gb Gen 5 and 16Gb/32Gb Gen 6 Fibre Channel adapter product v1.60.1 that was released on January 19<sup>th</sup>, 2018. This information pertains to the Microsoft Windows 10, 8.1, 8 and 7 as well as Windows Server 2016, 2012 R2, 2012, 2008 R2 and 2008 operating systems. **Note:** It is recommended that the latest firmware available on ATTO website be used with this driver release.

## 2. Changes

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- **Version 1.60.1 (Released 1/19/2018)**
  - **New Features & Enhancements**
    - Restored previously available settings for target mode driver (OEM only)
- **Version 1.60 (Released 12/17/2017)**
  - **New Features & Enhancements**
    - Added atdevinfo, atcinfo, and atlocate CLI tools to the release package
- **Version 1.55 (Released 05/03/2017)**
  - **New Features & Enhancements**
    - x64 CLI tools are now included in the x64 package
    - Support for FC LUN masking has been removed
- **Version 1.50 (Released 12/20/2016)**
  - **New Features & Enhancements**
    - Increased default resource allocation to allow more NPIV virtual ports to be allocated.
    - Increased the default trace buffer size to 1 MB.
    - Fixed memory allocation type to improve performance.
- **Version 1.45 (Released 11/29/2016)**
  - **New Features & Enhancements**
    - Fixed a potential crash when pulling a cable under I/O load.
    - Fixed a potential MultiPath Director crash when pulling a cable under I/O load.
    - Fixed WHQL HyperVisor Code Integrity test failure.
    - Added link cable beacon feature.
    - Added host name registration feature.
- **Version 1.40 (Released 09/27/2016)**
  - **New Features & Enhancements**
    - Adjusted the default maximum transfer size to 512KB to improve third party storage controller performance
- **Version 1.35 (Released 06/26/2016)**
  - **New Features & Enhancements**
    - Added support for Celerity Gen 6 16Gb/32Gb FC adapters
    - Added support to display connector info in atinfo

- **Version 1.30 (Released 01/21/2016)**
  - **New Features & Enhancements**
    - Updates to events that are logged
    - Resolved an error that could result in an exchange used for a nameserver request completing for a port logged out
- **Version 1.26 (Released 10/15/2015)**
  - **New Features & Enhancements**
    - Microsoft Certified package for Windows 10
- **Version 1.25 (Released 8/06/2015)**
  - **New Features & Enhancements**
    - Added support for Windows 10
    - Implemented T10-PI management improvements
    - Integrated miscellaneous bug fixes
- **Version 1.20 (Released 3/16/2015)**
  - **New Features & Enhancements**
    - Fixed a timing issue when mounting a volume.
    - Addressed an issue with seeing LUNs in a direct attached environment.
- **Version 1.16 (Released 1/27/2015)**
  - **New Features & Enhancements**
    - Corrected an exchange leak issue.
- **Version 1.15 (Released 10/30/2014)**
  - **New Features & Enhancements**
    - Corrected a resource and performance issue concerning the number of logins being generated by NPIV ports.
    - Addressed a firmware issue causing an error when querying a switch
    - Addressed an issue where HBAs failed to properly recover from a controller reset.
    - Increased the number of Registry parameter NumRequests to 3000
- **Version 1.11 (Released 10/30/2014)**
  - **New Features & Enhancements**
    - Microsoft Certified Drivers for Windows 8, 8.1 (x86, x64) & 2012, 2012 R2 (x64)
- **Version 1.10 (Released 07/08/2014)**
  - **New Features & Enhancements**
    - Improved IOPS performance
    - Enhanced the device display in atinfo
    - Added support for atreset
    - Addressed an issues where Windows drivers cannot interpret older Windows driver eventlogs
- **Version 1.07 (Released 03/27/2014)**
  - **New Features & Enhancements**
    - Corrected issue with Execution Throttle that could prevent I/O from being started
    - Added support for Windows 8.1 (x86, x64) and Server 2012 R2 (x64)
- **Version 1.06 (Released 02/06/2014)**
  - **New Features**
    - Improved LinkDown timeout resolution.
    - Added SCSI Write 12 to T10-DIF capable commands.
    - Register service parameters in FLOGI along with PLOGI.
    - Increased the retry timer to 150ms from 100ms.
    - Improved how a port database entry is initialized.

- **Version 1.05 (Released 11/25/2013)**
  - **Note:** It is recommended that firmware dated 4/10/2013 be utilized with this driver release.
  - **New Features**
    - Increased the maximum supported targets from 256 to 512.
    - Added uninstall functionality to the driver installer.
    - Modified driver to handle read commands with missing or corrupted data frames that complete with a GOOD SCSI status.
    - Updated driver when NPIV is disabled to always attempt to log into ports on a fabric.
  
- **Version 1.03 (Released 4/17/2013)**
  - **Note:** It is recommended that firmware dated 4/10/2013 be utilized with this driver release.
  - **New Features**
    - This driver release has passed Microsoft's HCK compatibility tests and is listed on the Windows Certified Products List for Windows 7, 8, Server 2008 R2 and 2012
    - Support was added for Windows 2012 Hyper-V
    - Corrected a timing issue with Task Management commands
    - Fixed a blue screen that occurred when coming out of hibernation
    - Updated HBA API Get Port Statistics to return accurate time value
  
- **Version 1.02 (Released 1/15/2013)**
  - **Note:** It is recommended that firmware dated 11/08/2012 be utilized with this driver release.
  - **New Features**
    - Added support for the quad port Celerity 16Gb Fibre Channel Host Adapter (164E)
    - Changed the default Execution Throttle to 255 (disabled)
    - Implemented interrupt coalescing
    - Implemented NPIV for Windows 2008 and later
    - Data transfer errors no longer cause the command to be aborted without allowing the upper layer to send a response in Target Mode
    - Fixed event Log messages so lost frames report with the correct error code
    - Code that set the Disable Laser GPIO pin to a known state was removed because it seemed to be causing a laser TX\_FAULT to occur when coming out of sleep
  
- **Version 1.01 (Released 11/8/2012)**
  - **Note:** It is recommended that firmware dated 11/08/2012 be utilized with this driver release.
  - **New Features**
    - SAN Boot is now supported
    - T10 DIF now can be enabled in Windows
    - Fibre Channel Link Down Timeout is now operational
    - The Port Database is now sorted so devices show up in the same order across reboots
    - Enhanced the PCIe speed capability back up to Gen 3 if it had been lowered by placing the card in another platform
    - Addressed an unexpected driver removal when in loop mode
    - Fixed an issue where the HBA API Get Port Stats would hang
  
- **Version 1.00 (Released 9/28/2012)**
  - **Note:** It is recommended that firmware dated 9/24/2012 be utilized with this driver release.
  - **New Features**
    - Initial release of Windows drivers for the Celerity 16Gb FC adapters

### 3. Known Issues/Advisements

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- When connecting directly to a disk drive while the topology is set to P2P Preferred (or AL preferred) the device may not be found with auto-topology. If this happens adjust topology setting.
- Arbitrated Loop is not support by the 16Gb Fibre Channel - the industry specification has not been finalized.
- The minimum requirement for StorPort drivers is Windows XP or 2003 SP2.
- An Unsigned Driver warning will appear when installing on Vista and 2008. This is expected behavior as Microsoft has not issued a Windows Update with their latest Root Certificate. Subsequent installs should not produce the warning.
- Multiple direct connections to a Xyratex drive array do not work.
- If the system will not boot in a MSI 277A-GD80 motherboard and the System BIOS PCI ROM Priority is set for EFI Compatible ROM, set the System BIOS PCI ROM Priority setting to Legacy ROM.
- System will not boot when card is installed in an Intel Grosse Point machine.

### 4. Affected Products

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Product Name	SKU
Celerity FC 161E	CTFC-161E-000
Celerity FC 162E	CTFC-162E-000
Celerity FC 164E	CTFC-164E-000
Celerity FC 161P	CTFC-161P-000
Celerity FC 162P	CTFC-162P-000
Celerity FC 164P	CTFC-164P-000
Celerity FC 321E	CTFC-321E-000
Celerity FC 322E	CTFC-322E-000

### 5. Contacting ATTO Support

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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](mailto:techsupport@attotech.com)