ATTO Technology, Inc.

Product Release Notes

ExpressPCI Ultra320 Release v3.16 - Windows®

1. General Release Information

These product release notes define the new features, changes, known issues and release details that apply to ExpressPCI Ultra320 SCSI adapter driver, version 3.16, released on 09/17/10. This information pertains to the Microsoft Windows drivers associated with the ExpressPCI Ultra320 SCSI products for x86, x64 and x64 Itanium platforms.

2. Changes

- ***Version 3.16 (2003 WHQL Released 09/17/2010)***
  - The following apply to changes made from v3.15 to v3.16
  - **It is recommended that firmware version 2009_04_10 and BIOS version 2.27 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Windows Server 2003 (x64 and x 86) WHQL for ExpressPCI UL5D LP.
    - Modify ASPM commands for enhanced interoperability

- ***Version 3.15 (Released 11/24/2009)***
  - The following apply to changes made from v3.14 to v3.15
  - **It is recommended that firmware version 2009_04_10 and BIOS version 2.27 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Windows Server 2008 WHQL for ExpressPCI UL5D LP.

- ***Version 3.14 (Released 08/28/2009)***
  - The following apply to changes made from v3.13 to v3.14
  - **It is recommended that firmware version 2009_04_10 and BIOS version 2.27 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Documented support for Windows 7.
    - Configuration Tool enhancement for NVRAM
    - Registry setting change, for correction of data length for drives with sector sizes between 513 and 767 bytes

- ***Version 3.13 (Released 03/10/2009)***
  - The following apply to changes made from v3.12 to v3.13
  - **It is recommended that firmware version 2008_02_18 and BIOS version 2.25 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Added the SRB function to the event log
    - Resolved an Invalid SCSI Request Block from Windows

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- ***Version 3.12 (Released 02/24/2009)***
  - The following apply to changes made from v3.11 to v3.12
  - **It is recommended that firmware version 2008_02_18 and BIOS version 2.25 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Resolved an issue in abort processing that could cause the driver to crash if the task management command was never sent to the device
    - Assigned valid message IDs to the driver's custom event log messages to avoid erroneous messages from being displayed for system events

- ***Version 3.11 (Released 09/26/2008)***
  - The following apply to changes made from v3.10 to v3.11
  - **It is recommended that firmware version 2008_02_18 and BIOS version 2.25 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Resolved an issue when an external bus reset during negotiation could cause a blue screen
    - Resolved an issue with Storport where a device or logical unit request from Windows would cause a blue screen
    - Resolved the calculation of the maximum allowed data transfer length error
    - Created a fix for a firmware issue where a READ ATTRIBUTE command with an odd transfer length would hang the SCSI bus by temporarily negotiating to U160
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- ***Version 3.10 (Released 02/28/2008)***
  - The following apply to changes made from v3.08 to v3.10
  - **It is recommended that firmware version 2008_02_18 and BIOS version 2.25 be utilized with this driver release.**
  - **New Features, Enhancements and Changes**
    - Support for Microsoft Windows Server 2008
    - Addressed an issue with a bus hang during U320 data transfers when a write command is issued with a length that is not a multiple of four.
    - Improved power management functionality when multiple host adapters are installed in the same computer.
    - The self extracting executable packages now unzip to a unique directory by default.
    - Consolidated readme files into a single HTML document.
    - Added the "UntaggedMode" registry setting to control how untagged commands are converted. This resolves an issue with tape libraries when commands that take a long time to complete are issued and the media changer and tape drive share the same target ID (ADI).
    - Added SCSI Read12 and Write12 commands to those that will be converted to ordered queue when they are untagged (when UntaggedMode is set to 2).
    - Removed spinlocks, DPC scheduling, and IRQL modification in crashdump/hibernate mode for Server 2003 and Server 2008 WHQL compliance.

- ***Version 3.08 (Released 09/7/2007)***
  - The following apply to changes made from v3.05 to v3.08
  - **New Features, Enhancements and Changes**
    - Rework I/O processing for 'normal' requests to improve performance (deferred queues are bypassed).
    - Improved Task Management handling
    - The chip is no longer reset on a rescan when a tape drive or media changer is present. As a result, bus mode changes are no longer supported (SE <-> LVD).
    - Fix the potential for a double completion if a bus reset occurs when an I/O with negotiation is outstanding.
    - Modification to clean up all requests when a chip reset occurs.

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        - Resolved an issue that could occur on some motherboards when a PCIe based UL5 HBA is in the same system with a PCI-X based UL4 HBA.
        - Added PCI information and driver version to the event log.
        - Change to acquire the deferred lock while aborting a request.
        - Resolved a driver load issue with Win2000 introduced in the previous release.

- ***Version 3.05 (Released 04/10/2007)***
    - The following apply to changes made from v3.00 to v3.05
    - **New Features, Enhancements and Changes**
        - Support for Microsoft Windows Vista
        - Delay bus scans for 15 seconds after a power cycle to prevent WHQL test errors.
        - Added ability to use the WDK for generating PREfast results for WHQL.
        - Fix bus scan issue with Power Center that caused devices not to show up due to simultaneous bus scans in Windows Vista.
        - Only convert untagged commands to ordered queue for reads and writes.
        - Escalate an abort to an abort task set if the request is untagged.
        - Performance improvement for 8MB requests.
        - Set the completion status of internal bus rescan requests correctly after retries.

3. Known Issues/Advisements

- None

4. Affected Products

Product Name	SKU
ExpressPCI UL4S	EPCI-UL4S-XXX
ExpressPCI UL4D	EPCI-UL4D-XXX
ExpressPCI UL5D	EPCI-UL5D-XXX
ExpressPCI UL5D Low Profile	EPCI-UL5D-LXX

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:

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