



## ExpressSAS H6F0 GT HBA Release v1.16 - Linux

### 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 ExpressSAS H6F0 GT host adapter product v1.16 that was released on December 19, 2013. This information pertains to the following Linux operating systems: Red Hat Enterprise Linux 5 and 6 (i386, x86, x64), SUSE Linux Enterprise Server 11, 11 SP1, 11 SP2 (i386, x86, x64), CentOS 5 and 6 (i386, x86, x64) and Fedora 17 and 18 (i386, x86, x64).

### 2. Changes

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- **Version 1.16 (Released 12/19/2013)**
  - **Note:** It is recommended that firmware dated 12/10/2013 be used with this driver release.
  - **New Features, Enhancements and Changes**
    - Disabled support for the Linux SAS SCSI transport layer due to various problems when adding devices to certain topologies.
  
- **Version 1.11 (Released 06/10/2013)**
  - **Note:** It is recommended that firmware dated 05/30/2013 be used with this driver release.
  - **New Features, Enhancements and Changes**
    - Added underrun detection support to SMP pass-through ioctls.
    - Add several improvements to SATA task management processing.
    - Added support for descriptor-based sense data.
    - Updated SCSI-to-ATA translation for the Test Unit Ready command to be compliant with specification.
    - Corrected an issue with bus resets that would prevent additional bus resets from working properly.
    - Resolved issue where devices reported in `/proc/scsi/scsi` when `change_notification` is disabled.
    - Multiple Invalid Frame errors are required before Transport Layer Retries are disabled for a device.
    - Updated SCSI-to-ATA translation for Inquiry VPD page 89 to support any data length.
    - During a command retry, TLR is disabled in the active command when a target does not support it.
    - Several issues were corrected with failing over and retrying I/O when using a virtual x8 wideport.
    - Added Link Down Timeout in NVRAM.
    - Fixed discovery to have dedicated resource so I/O does not starve discovery.
    - Now report target database changes in topology order.
    - Enhanced power management (suspend/resume) functions.
    - Fixed compile issue with kernel 3.7 and 3.8+
    - Fixed an issue where the connector memory map could not be accessed.
    - SATA devices are no longer disabled if task management fails.
    - Unhandled Error Code and DID\_NO\_CONNECT when stressing volume.
    - Fixed issue where driver installer did not run in Ubuntu 12.04

- **Version 1.06 (Released 05/24/2012)**
  - **Note:** It is recommended that firmware dated 05/21/2012 be used with this driver release.
  - **New Features, Enhancements and Changes**
    - Modifications made to provide a quiescent period after a reset to prevent chip errors being asserted during power management.
    - Added support for *atreset*, *atdevupd*, and *atsastop* CLI tools.
    - The default device wait time when resuming from sleep has been increased to 15 seconds.
    - Added support for reporting the board temperature in *atinfo*.
    - Fixed a rare issue where task management for a SATA target could affect outstanding I/Os for other SATA targets.
    - Fixed support for SATA drives with non-512 byte sector sizes.
    - Resolved an issue where the residual length on data underruns and overruns was not reported correctly.
    - Prevent the assertion of a DMA error when an unassociated data FIS is received.
    - Corrected several crashes and hangs that could occur during Thunderbolt hot plugging.
  
- **Version 1.05 (Released 01/31/2012)**
  - **Note:** It is recommended that firmware dated 01/31/2012 be used with this driver release.
  - **New Features, Enhancements and Changes**
    - Initial production release for the H6F0 GT.

### 3. Known Issues/Advisements

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- The driver is not fully SAT compliant (SCSI-to-ATA Translation for SATA support). The following SCSI commands are not translated: FORMAT UNIT, REASSIGN BLOCKS, SECURITY PROTOCOL IN, and SECURITY PROTOCOL OUT. There is no known user impact.

### 4. Affected Products

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Product Name	SKU
ExpressSAS H6F0 GT Adapter	ESAS-H6F0-GT0

### 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 6:00 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)