



ATTO Technology, Inc.

# FastFrame™ 10GbE Network Interface Card

## Getting Started Guide

Thank you for purchasing the ATTO FastFrame 10GbE Network Interface Card (NIC). This guide gives you the basics for installing and configuring your adapter. For more information, please visit our website at [www.attotech.com](http://www.attotech.com)

### 1 Overview

This guide covers hardware and software installation, setup procedures, and troubleshooting tips for ATTO FastFrame 10Gb Ethernet adapters.



Note

*This guide refers to drivers and features available on IA-32 based computer platforms and platforms based on Intel® Extended Memory 64-bit Technology. These drivers are not compatible with Itanium®-based computers.*

Ensure you have the equipment and software you need for the installation:

- FastFrame NIC
- A computer with an available PCIe or PCIe 2.0 expansion slot
- Cables, connectors and SFP+ modules

### 2 System Requirements:

Before installing the ATTO FastFrame 10Gb Ethernet Adapter, check your system for the following minimum configuration requirements.

#### Supported Operating Systems

- Microsoft Windows Vista®, 8.1®
- Microsoft Windows Server® 2008, 2008 R2, 2012
- Mac OS® X 10.6, 10.7, 10.8
- Red Hat Enterprise Linux® 5.x, 6.x
- SUSE Linux Enterprise® Server 11, 11 SP1, 11 SP2
- openSUSE™ 11.3, 11.4
- CentOS 6

The installer for the adapter drivers will only list the drivers that are compatible with the currently running operating system.

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### 3 Installing Drivers

Configure your system to recognize and use your FastFrame NIC by installing drivers for your operating system.

#### Windows

- 1 Power on your system and log in as the administrator or a user with proper administrative privileges
- 2 Go to [www.attotech.com](http://www.attotech.com)
- 3 Click on **downloads**.
- 4 Register or log in if previously registered.
- 5 Click on **Ethernet Adapters** in the left dialog.
- 6 Navigate to your HBA model/family in the right dialog and click on it.
- 7 Scroll down to and click the desired driver depending on the operating system.
- 8 A download window appears. Choose **Save File**.
- 9 Double-click the downloaded file to extract and launch the driver setup program.
- 10 Follow the on-screen instructions to complete the driver installation.
- 11 Click **Install Windows Driver XX** next to the appropriate item to initiate the driver setup program.
- 12 Follow the on-screen instructions to complete the driver installation.


 Note  
XX refers to the version number.

#### Mac OS X

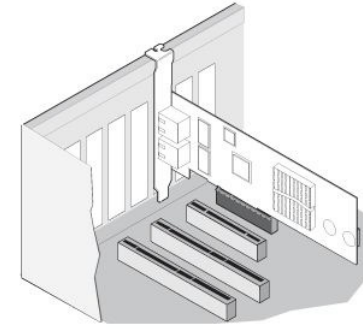
- 1 Power on your system and log in as the administrator or a user with proper administrative privileges
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- 3 Click on **downloads**.
- 4 Register or log in if previously registered.
- 5 Click on **Ethernet Adapters** in the left dialog.

- 6 Navigate to your HBA model/family in the right dialog and click on it.
- 7 Scroll down to and click the desired driver depending on the operating system.
- 8 A download window appears. Choose **Save File**.
- 9 Launch the installer package.
- 10 Follow the on-screen instructions.


#### Linux

 Note  
These steps assume a basic knowledge of Linux terminal commands. You must also have the correct kernel source files for the appropriate kernel already installed.

- 1 Power on your system and log in as the administrator or a user with proper administrative privileges
- 2 Go to [www.attotech.com](http://www.attotech.com)
- 3 Click on **downloads**.
- 4 Register or log in if previously registered.
- 5 Click on **Ethernet Adapters** in the left dialog.
- 6 Navigate to your HBA model/family in the right dialog and click on it.
- 7 Scroll down to and click the desired driver depending on the operating system.
- 8 A download window appears. Choose **Save File**.
- 9 After the download has completed open the FastFrame volume on the desktop.
- 10 Open the **Linux** folder.
- 11 Open the **Drivers** folder.
- 12 Copy the .tgz file to a temporary folder.
- 13 Open a terminal window and change the location of the copied tgz.
- 14 Extract the file using the command **tar -xzf <filename.tgz>**.
- 15 Change to the directory created above then run the installer script **./install.sh**.




### 4 Hardware Installation


 Note  
If you are replacing an existing adapter with a new adapter, you must re-install the driver.

#### Insert a PCI Express Adapter in the Server

- 1 Turn off the server and unplug the power cord, then remove the server's cover.


 **CAUTION**  
Turn off and unplug the server before removing the server's cover. Failure to do so could endanger you and may damage the adapter or server.

- 2 Remove the cover bracket from a PCI Express slot (v1.0a or later).  
PCI-Express slots and adapters vary in the number of connectors present, depending on the data lanes being supported.
- 3 Insert the adapter in an available, compatible PCI Express slot. Push the adapter into the slot until the adapter is firmly seated. The adapter can be installed in x8 or x16 mechanical PCIe slot.

 **CAUTION**  
Some PCI-Express adapters may have a short connector, making them more fragile than PCI adapters. Excessive force could break the connector. Use caution when pressing the board in the slot.

- 4 Repeat steps 2 through 3 for each adapter you want to install.
- 5 Replace the server cover and plug in the power cord.
- 6 Turn the power on.

#### Connect a 10GbE Fibre Network Cable

 **CAUTION**  
This product uses a Class 1M laser module. Viewing the laser output with certain optical instruments designed for use at a distance (for example, telescopes and binoculars) may pose an eye hazard.

Remove and save the fiber optic connector cover. Insert a fiber optic cable into the ports on the network adapter bracket.

Most connectors and ports are keyed for proper orientation. If the cable you are using is not keyed, check to be sure the connector is oriented properly (transmit port connected to receive port on the link partner, and vice versa).

For ATTO FastFrame 10Gb Ethernet Adapters:  
Laser wavelength: 850 nanometer  
Cable type to use: Multi-mode fiber with 62.5µm or 50µm core diameter  
Connector type: LC.  
Maximum cable length: 300 meters (with laser optimized).

The adapter must be connected to a compatible link partner, such as an IEEE 802.3ae-compliant 10-gigabit switch, which is operating at the same laser wavelength as the adapter.

### 5 Configure Network Settings

To configure your network settings, consult your System Administrator or System Documentation.

### 6 Configure your Adapter

Default settings are appropriate for most systems but you may change settings using the Device Manager in Windows, EthTool in Linux or Network section of System Preferences in OS X.