

HP AP768A

HP 42B PCIe 4GB FC Dual Port HBA User Manual

Model: AP768A

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your HP 42B PCIe 4GB FC Dual Port Host Bus Adapter (HBA). Please read this manual thoroughly before attempting to install or operate the device to ensure proper functionality and safety.

2. PRODUCT OVERVIEW

The HP 42B PCIe 4GB FC Dual Port HBA is a high-performance Fibre Channel adapter designed to connect servers to Fibre Channel storage area networks (SANs). It features a PCI Express interface for high bandwidth and dual ports for redundancy and increased throughput, supporting 4 Gigabit Fibre Channel speeds.



An image showing the HP 42B PCIe 4GB FC Dual Port HBA, a green circuit board with two Fibre Channel ports and a PCIe connector.

3. SETUP

3.1. Pre-installation Checklist

- Compatible server with an available PCI Express slot.
- Appropriate Fibre Channel cables (LC-LC or SC-SC, depending on your SAN infrastructure).
- Static-dissipative wrist strap and mat.
- Small Phillips head screwdriver.
- Operating system installation media or access to drivers.

3.2. Hardware Installation

1. **Power Down:** Power off the server and disconnect all power cords.
2. **Open Chassis:** Open the server chassis according to the server manufacturer's instructions.
3. **Static Protection:** Wear a static-dissipative wrist strap and connect it to a grounded surface.
4. **Locate Slot:** Identify an available PCI Express slot.
5. **Remove Slot Cover:** Remove the metal slot cover from the server chassis corresponding to the chosen PCIe slot.
6. **Insert HBA:** Carefully align the HBA with the PCIe slot and press firmly until it is fully seated. Ensure the bracket is flush with the server's rear panel.
7. **Secure HBA:** Secure the HBA bracket to the server chassis using the screw or retention clip provided by the server manufacturer.
8. **Close Chassis:** Close the server chassis and reconnect all power cords.

3.3. Driver Installation

After hardware installation, power on the server. The operating system may automatically detect the HBA and install generic drivers. For optimal performance and full functionality, it is recommended to download and install the latest drivers and firmware from the official HP support website for your specific operating system.

4. OPERATING INSTRUCTIONS

4.1. Initial Power On and Verification

1. **Power On:** Power on the server.
2. **BIOS/UEFI Check:** During boot-up, observe if the HBA is detected by the server's BIOS/UEFI.
3. **Operating System Verification:** Once the operating system loads, use the appropriate device manager or command-line tools to verify that the HBA is recognized and its drivers are loaded correctly. For example, in Windows, check Device Manager; in Linux, use `lspci` and `dmesg`.

4.2. Connecting to a SAN

Connect the Fibre Channel cables from the HBA's ports to the appropriate ports on your Fibre Channel switch or storage array. Ensure that the cables are securely connected. Refer to your SAN documentation for specific zoning and LUN mapping configurations.

4.3. Basic Configuration

Configuration of the HBA, such as World Wide Name (WWN) settings, boot from SAN options, and performance tuning, is typically performed through the HBA's BIOS utility (accessed during server boot) or through vendor-specific management software within the operating system. Consult the HP support documentation for detailed configuration guides.

5. MAINTENANCE

5.1. Cleaning

Periodically inspect the HBA for dust accumulation. If cleaning is necessary, power down the server,

disconnect power, and use compressed air to gently remove dust from the HBA and surrounding components. Do not use liquid cleaners.

5.2. Firmware Updates

Regularly check the HP support website for firmware updates for your HBA. Firmware updates can provide performance enhancements, bug fixes, and compatibility improvements. Follow the instructions provided with the firmware update package carefully.

5.3. Environmental Considerations

Ensure the server operates within its specified temperature and humidity ranges to prevent damage to the HBA and other components. Proper airflow within the server chassis is crucial for cooling.

6. TROUBLESHOOTING

6.1. HBA Not Detected

- Verify the HBA is fully seated in the PCIe slot.
- Try the HBA in a different PCIe slot.
- Ensure the server's BIOS/UEFI is up to date.
- Check for any error messages during server boot.

6.2. Connection Issues

- Verify Fibre Channel cables are securely connected and not damaged.
- Check the status LEDs on the HBA and the Fibre Channel switch for link activity.
- Confirm SAN zoning and LUN mapping configurations are correct.
- Ensure the correct drivers are installed and functioning.

6.3. Performance Problems

- Ensure the latest HBA drivers and firmware are installed.
 - Check server resource utilization (CPU, memory) for bottlenecks.
 - Verify SAN performance and configuration.
 - Consult HP support documentation for performance tuning guidelines.
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7. SPECIFICATIONS

- **Model Number:** AP768A
- **Interface Type:** Fibre Channel
- **Hardware Interface:** PCI Express
- **Ports:** Dual Port
- **Data Rate:** 4 Gigabit per second (implied)
- **Product Dimensions:** 1.04 x 0.98 x 0.76 inches
- **Item Weight:** 8 pounds
- **UPC:** 884962013441

8. WARRANTY AND SUPPORT

8.1. Warranty Information

The HP 42B PCIe 4GB FC Dual Port HBA typically comes with a 3-year limited warranty. Please refer to the warranty documentation included with your product or visit the official HP website for specific terms and conditions.

8.2. Technical Support

For technical assistance, driver downloads, firmware updates, and additional documentation, please visit the official HP support website. You may need your product's serial number or model number (AP768A) when contacting support.