

Gen5 x16 Switch Adapter

ARC-1389-32I



Adapter Architecture

- PCIe Gen5 x16 lanes host interface
- NVMe Gen 5 x4 device interface
- In-box(native) NVMe driver support

Step 1: Unpack

Inspect NVMe switch adapter from the package. If it appears damaged, or if any items of the contents listed below are missing or damaged, please contact your dealer or distributor.

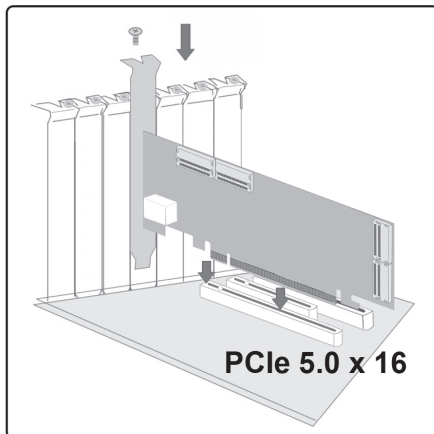
Checklist

- 1 x Low-profile bracket
- 1 x NVMe switch adapter in an ESD-protective bag

Step 2: Power PC/Server Off

Step 3: Install the NVMe Switch Adapter

Remove the mounting screw and existing bracket from the rear panel behind the selected PCIe 5.0 x16 slot. Align the gold-fingered edge on the card with the selected PCIe 5.0 slot. Press down gently but firmly to ensure that the card is properly seated in the slot. Then, screw the bracket into the computer chassis.



Step 4: Mount the Drives

You can connect the NVMe drives to the adapter through direct cable and backplane solutions.

(1). In the direct connection:

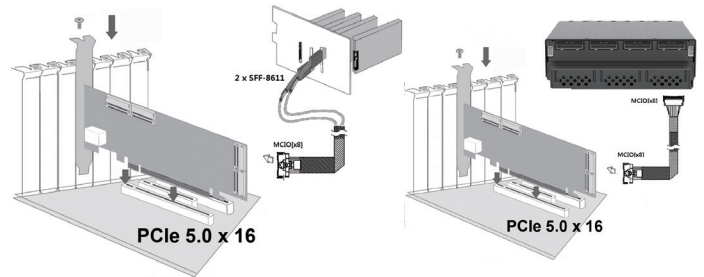
The NVMe drives are directly connected to NVMe switch adapter PHY port with proper storage connection cables.

(2) In the backplane solution:

The NVMe drives are directly connected to system backplane or through a PCIe switch board. The number of NVMe drives is limited to the number of slots available on the backplane.

Step 5: Install Storage Connection Cable

The adapter has four x8 MCIO connectors. Each x8 connector provides two sets of SFF-9402 standard sidebands. It supports both the industry standard SFF-TA-1005 Specification for Universal Backplane Management (UBM) and maintains Virtual Pin Port (VPP) backplane management for legacy implementations. Choose the proper cable for the given backplane type and connectors. Connect the MCIO connector of the adapter to the backplane or NVMe SSD via the proper cable. For backplane connector supporting, please refer to the enclosure/cage backplane manual and choose the proper cable from backplane vendor's manual.



Step 6: Power up the System

Step 7: Install the Adapter Driver

ARC-1389-32I switch adapter uses OS NVMe host (native) driver, no driver installation needed. All major operating systems natively support native NVMe driver. User does not need to install device drivers, or software management suite. All attached NVMe SSDs on the ARC-1389-32I will be automatically recognized by the operating system. If you don't monitor information from the adapter, belows step 8 and step 9 can be ignored..

Step 8: Install ArchHTTP Proxy Server (optional)

ArchHTTP has to be installed for GUI switch console (switch storage manager) to run. It is used to launch the web browser switch storage manager. It also runs as a service or daemon in the background that allows capturing of events for mail and SNMP traps notification.

Follow the steps below to install the Archhttp utility.

1. Download ArchHttp proxy server (or switch software) from Areca website: <https://www.areca.com.tw/support/downloads.html>
2. Follow the steps on the user manual to complete the installation

If you need additional information about installation and start-up of this function, see the ArchHTTP Proxy Server Installation section in Chapter 4 of the user manual.

Step 9: Manage Adapter (optional)

Adapter can be monitored by using any of these tools:

- McBIOS switch setup utility
 - BIOS-based menus and keyboard navigation.
- Switch Storage Manager
 - Web browser firmware-based manager, which is accessible via the web browser installed on your operating system through ArchHttp utility and Lan Port.

※ Method 1: McBIOS Switch Setup Utility

The McBIOS switch setup utility is a menu-driven program, residing in the firmware, which allows you to scroll through various menus and sub-menus and select among the predetermined configuration options.

1. Enter the motherboard BIOS setup, in the boot order list, add UEFI OS to the 1st priority boot. Restart your motherboard to boot from UEFI OS.
2. When booted, the McBIOS switch setup window appears showing the main menu of the switch adapters that are installed in the system.
3. The McBIOS switch setup utility window appears showing a selection dialog box listing the adapters, select your adapter, then press **Enter** to show the McBIOS setup utility message.
4. Follow the McBIOS setup utility to complete the configuration.

※ Method 2: Switch Manager From LAN Port

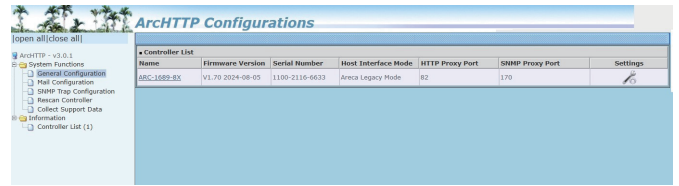
User can remote manage the ARC-1389-32I without adding any user specific software (platform independent) via standard web browsers directly connected to the RJ45 LAN port. You can find controller Ethernet port default IP address in McBIOS setup utility "System Information" option. Launch the Web Browser-based switch storage manager by entering `http://[IP Address]` in the web browser.

Type the User Name and Password. **The adapter default User Name is "admin" and the Password is "0000"**. After entering the user name and password, click the button to access the switch storage manager.

※ Method 3: Switch Storage Manager From ArchHTTP

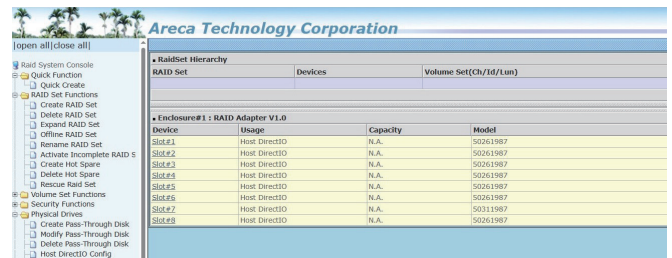
1. Start ArchHTTP- Browser Edition:
 - (1). On a Window, right-click on "Start" menu and choose "Programs". Clicking "MRAID" program icon starts the ArchHTTP utility (From the Start menu, choose Programs > MRAID > ArchHTTP).
 - (2). On a Linux/FreeBSD, launch your switch storage manager by entering `http://[Computer IP Address]:[Port Number]` in the web browser. there is one desktop.
2. When you double-click on the "ArchHTTP64" or enter `http://[Computer IP Address]:[Port Number]`, it shows all switch adapters available on the system and create an individual switch adapter icon located on right column of the "ArchHTTP Configurations" screen.

3. Locate "ARC-1389-32I Web Management" and launch the selected switch storage manager.



4. Type the User Name and Password when the login page prompt. **The switch adapter default User Name is "admin" and Password is "0000"**. After logging in, the switch storage manager process starts.

5. Click on the "RAID Set Hierarchy" in the main menu, all NVMe devices attached on the adapter are automatically configured as Host Direct IO mode. A Host DirectIO disk is not controlled by the NVMe switch adapter firmware. The disk is available directly to the operating system as an individual disk. It is typically used on a system where the operating system is on a disk not controlled by the switch adapter firmware.



See chapter 5 of ARC-1389-32I user manual for information on monitoring adapter information using switch storage manager.

If you need more detail information, please download user manual from the website below:

- <https://www.areca.com.tw/products/nvme-1389-32i.html>
- <https://www.areca.com.tw/support/downloads.html>

ARC-1389-32I Specifications

Model Name	ARC-1389-32I
PCIe Switch	PEX89048 48 Lanes Gen5 Switch
Host Interface	PCIe 5.0 x16 Lanes
Form Factor	LP-MD2 : 64.41(H) x 167.65(L) mm
Device Connector	4 x MCIQ[x8] Connector
Max NVMe Devices Support	Up to 8x4, 16x2, 32x1 NVMe SSD
Device Interface	Gen 5.0 x4 (NVMe)
Management Port	In-Band: PCIe/Out-of-Band Lan Port
Device Driver	In-box (Native) NVMe driver
Software Package	Same as ARC-1886 Tri-Mode RAID Adapter