

8 Ports PCIe Gen 4.0 Cost-Effective RAID Adapters

ARC-1686-8I/8X



Step 1: Unpack

Inspect RAID 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.

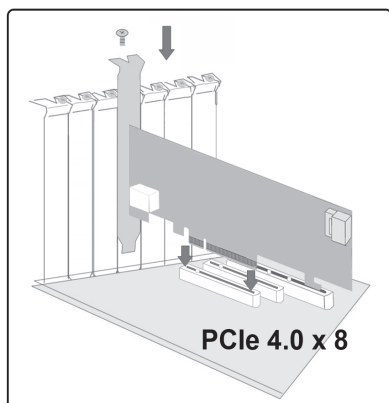
Checklist

- 1 x Low-profile bracket
- 1 x PCIe Gen 4.0 RAID adapter in an ESD-protective bag
- 1 x ARC-1686-8I/8X quick installation guide

Step 2: Power PC/Server Off

Step 3: Install the Tri-Mode RAID Adapters

Remove the mounting screw and existing bracket from the rear panel behind the selected PCIe 4.0 slot. Align the gold-fingered edge on the card with the selected PCIe 4.0 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/SAS/SATA drives to the adapter through direct cable and backplane solutions.

(1). In the direct connection:

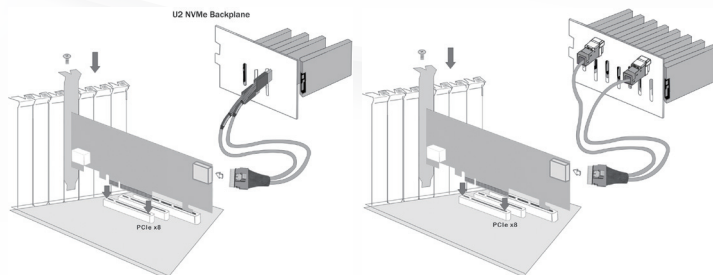
The SAS/SATA/NVMe drives are directly connected to tri-mode RAID adapter PHY port with proper storage connection cables.

(2) In the backplane solution:

The SAS/SATA/NVMe drives are directly connected to system backplane or through a PCIe switch/expander board. The number of SAS/ SATA/NVMe drives is limited to the number of slots available on the backplane. Some backplanes support daisy chain expansion to the next backplanes.

Step 5: Install Storage Connection Cable

SFF-8612 or SFF-8654 are the preferred connectors to use for NVMe backplane or multiprotocol backplanes based on the SFF-TA-1001 universal bay definition (UBM). The preferred I/O connector for server legacy SAS/SATA backplanes is the internal SFF-8087/8643 connector. For backplane connector supporting, please refer to the system backplane manual and choose the proper cable from Section 2.4 Storage Connection Cables for installation of user manual.



Step 6: Power up the System

Step 7: Install the Adapter Driver

For a new system:

- Driver installation usually takes place as part of operating system installation. Please refer to Chapter 4 "Driver Installation" of the user manual for the detailed installation procedure.

In an existing system:

- To install the adapter driver into the existing operating system. For the detailed installation procedure, please refer to the Chapter 4 "Driver Installation" of the user manual.

※ How to download the adapter driver:

- You can find the driver download section at the bottom of the ARC-1686-8I/8X product page.
https://www.areca.com.tw/products/nvme-1686.html#section_download
- Or you can visit Areca Download Center.
<https://www.areca.com.tw/support/downloads.html>

Step 8: Install ArchHTTP Proxy Server

ArchHTTP has to be installed for GUI RAID console (MRAID storage manager) to run. It is used to launch the web browser MRAID 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 MRAID software) from Areca Download Center:
<https://www.areca.com.tw/support/downloads.html>

or from the driver download section at the bottom of the ARC-1686-8I/8X product page:

https://www.areca.com.tw/products/nvme-1686.html#section_download

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 5 of the user manual. For SNMP agent function, please refer to Appendix B of the user manual.

Step 9: Configure RAID Set & Volume Set

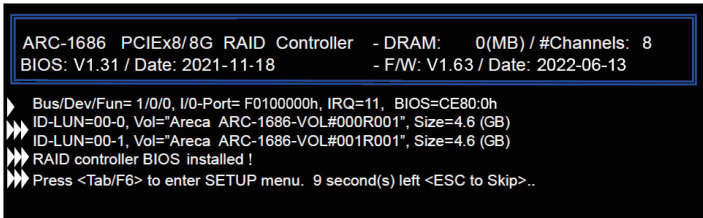
You can create and configure a RAID adapter using any of these tools:

- McBIOS RAID Manager
 - BIOS-based menus and keyboard navigation.
- MRAID Storage Manager
 - Web browser firmware-based manager, which is accessible via the web browser installed on your operating system. It can be launched through ArchHttp utility.

※ Method 1: McBIOS RAID Manager (Not For Mac User)

The McBIOS RAID manager 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.

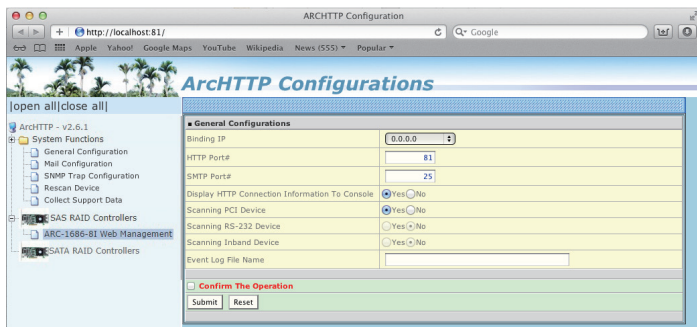
1. Power on your computer. When prompted, press **Tab** or **F6**.
2. The McBIOS RAID manager window appears showing a selection dialog box listing the RAID adapters, select your adapter, then press **Enter** to show the McBIOS RAID manager message.



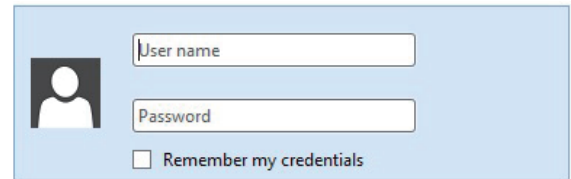
3. Follow the McBIOS RAID manager to complete the configuration.

※ Method 2: MRAID Storage Manager From ArchHTTP

1. Start ArchHTTP- Browser Edition:
 - (1) In Windows, 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 Mac, there is one MARID icon showing on your desktop. This icon is for you to start up the ArchHTTP utility.
2. When you double-click on the "ArchHTTP64", it shows all RAID adapters available on the system and create an individual RAID adapter icon located on left column of the "ArchHTTP Configurations" screen.
3. Locate "ARC-1686-8I/8X Web Management" and launch the selected MRAID storage manager.



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



5. Click on the "Quick Create" in the main menu, your volume is automatically configured based on the number of disks in your system. You can create a RAID set associated with exactly one volume set.

See chapter 6 of ARC-1686-8I/8X user manual for information on customizing your RAID volumes using MRAID storage manager.

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

- <https://www.areca.com.tw/products/nvme-1686.html>
- <https://www.areca.com.tw/support/downloads.html>

Product Features

	ARC-1686-8I	ARC-1686-8X
Driver Connector	1 x SFF-8654 [x8]	2 x SFF-8644 [x4]
I/O Processor	Tri-Mode Dual Core ARM A15 1.6GHz ROC	
Host Bus Type	x8 PCIe Gen 4.0	
Management	In-Band: PCIe	
Drive Support	12Gb/s SAS, 6Gb/s SATA, Gen 4.0 PCIe (NVMe)	
Max Devices Per Controller	32	
Form Factor	LP-MD2: 64.41(H) x 167.65(L) mm	
Enclosure Ready	SGPIO, SES2 and UBM	
Products View	