



G4-10G-010-96T

Hardware Installation

30 Apr 2021



G4-10G-010-96T

G4-10G-010-96T technical specifications

The technical specifications for the product are shown below.

System	
Deployment	1 Gb & 10 Gb hybrid data center
Base storage	96 TB
Max storage	96 TB
Lights Out Management (LOM)	Yes
Redundant OS drive	Yes
OS drive hot swappable	Yes
OS drive size	1 TB
RAID drive hot swappable	Yes
RAID level	6
Rail kit	Yes
Operating system	Windows 2016
Physical	
Height	2U
Width	19 in
Depth	25.5 in
Weight (with mounted rail kit or portable unit without a travel case)	72 lbs
Weight (handling or portable unit in a travel case)	78 lbs
Media	
Monitoring interfaces	8
Speed	1/10 Gb
Accepted transceivers ¹	SFP/SFP+
Performance	
Aggregate performance	10 Gbps
Power	
Redundant power supply	Yes
Input frequency	50/60Hz
Input voltage	100V-240V Auto Select
Operational current (amps)	3.17
BTU/hr	1297
Operational voltage	120V
Power dissipation (watts)	380
Relative humidity (non-condensing)	8% to 90%
Temperature (operating)	10°C ~ 35°C (50°F ~ 95°F)
Temperature (storage)	-40°C to 60°C (-40°F to 140°F)
Compliance	RoHS, FCC, CE

1. For SFP, the SFP may be any of Copper 10/100/1000, 1Gb SX/LX. For SFP+, the SFP+ may be any of 10Gb SR/LR. For QSFP+, the QSFP+ may be any 40Gb SR/LR/BiDi/Universal. For QSFP28, the QSFP28 transceivers may be SR4, LR4, or BiDi.

Parts list

Each appliance comes packed in a box or several boxes. The boxes contain the various components necessary for a successful installation. The appliance box contains the following components:

- 1 Head unit with RAID drives preinstalled
- 1 Rail kit
- 2 Power supply cables
- 2 Ethernet cables
- 1 Product Activation Information envelope containing the product license
- 1 Quick Start Guide
- SFP transceivers (if ordered)

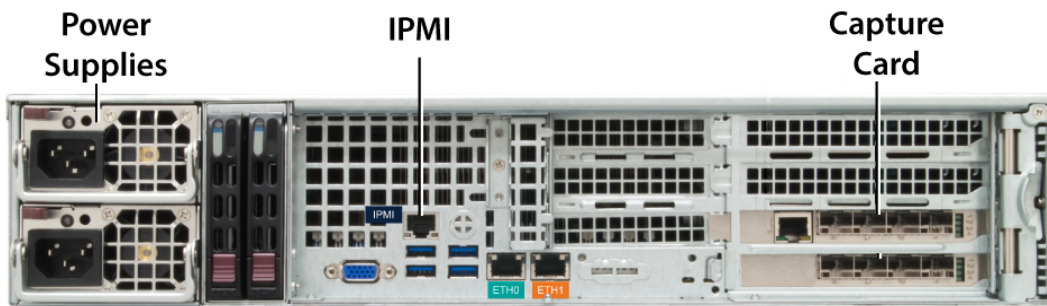
Before installing, ensure you received all of the parts required for your system.

Quick start for experienced installers

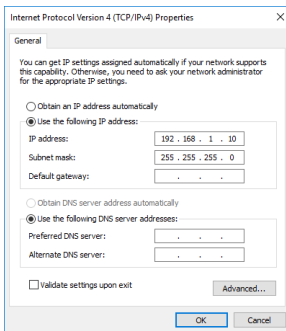
First time installers should use the [installation instructions \(page 4\)](#).

Caution: Do not attempt in-cabinet repairs of your appliance. The appliance is very heavy! Always use a server lift or work with a partner to install or remove the appliance from the cabinet to perform any maintenance.

1. Mount the appliance in your cabinet. Refer to the instructions on [VIAVI Rail Kit \(page 7\)](#). Do not remove the drives from the chassis.
2. Connect the cables.
 - Power
 - Ethernet
 - Intelligent Platform Management Interface (IPMI) (optional)



3. Insert the transceivers.
4. Connect the KVM.
5. Set the ip address.



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Caution: Do not attempt in-cabinet repairs of your appliance. The appliance is very heavy! Always use a server lift or work with a partner to install or remove the appliance from the cabinet to perform any maintenance.

1. Take the appliance and all other components out of the packing materials.
2. Install the head unit (A1) into your server rack or cabinet. Do not remove the RAID drives from the chassis.
3. Using an Ethernet cable, connect the **ETH0** port to the network.

Connecting the ETH0 port allows you to use Windows Remote Desktop or other tools to control or configure Windows or Windows applications, such as Observer Analyzer.

4. (Optional) (Optional) Connect an Ethernet cable from your router or switch to the LOM or IPMI port.

(Optional) (Optional) A Lights Out Management or IPMI port provides you a dedicated management channel for device maintenance. It allows you to monitor, start, stop, and manage your appliance remotely regardless of whether the appliance is powered on.

5. Install [SFP transceivers \(page 5\)](#)¹ into the open slots on the back of the capture card(s).
6. *If you are connecting to SPAN/mirror ports of a network switch:* connect a straight-through Ethernet cable from the SPAN/mirror ports on your switch to the SFP transceivers on the capture card.
7. Connect a monitor, keyboard, and mouse to the hardware appliance.

You can use a [KVM](#) switch if desired. (The KVM must be compatible with the operating system used on the appliance.) The user input devices or KVM switch are only temporarily needed to set the IP address, so you can disconnect them after the IP address is set.

8. Turn on the appliance and wait for the RAID to initialize.

After plugging in the power cords, wait until the blue Information LED starts to blink. Press the power button once. The power button is located on the front of the appliance. The control board initiates the power up sequence in three seconds. The entire process may take a couple of minutes.

9. (Optional) (Optional) Change the [IPMI port \(page 5\)](#) in the BIOS using a static IP address provided by your network administrator.
10. In Windows, change the [IP address \(page 5\)](#) for the **ETH0** port (shown as **ETH0** in **Network Connections**

in Windows) using information supplied to you by your network administrator.

The default IP address (192.168.1.10) is printed on a sticker attached to the top of the appliance.

11. Ensure the time zone settings match your environment.
12. Double-click the Observer icon on the Desktop to start Observer.

Your hardware appliance is installed and on your network.

Next, give the **ETH0** IP address and IPMI port address, if using, to the Observer administrator.

1. SFP, SFP+, QSFP+, and QSFP28 transceivers are sold separately.

Configuring your system

There are a number of items to do to get your system on your network and ready to use.

Startup and shutdown

There are several procedures to turn on or off your system.

First plug in the power cord

1. Plug the power cords into the rear of the power supplies.
2. Wait until the blue Information LED starts to blink.
3. Press the power button once. The control board initiates the power up sequence in three seconds.

After normal shutdown by IPMI or power button

Press the power button once.

After a power loss

The system will power up automatically approximately fifteen seconds after the power returns.

Power down

Turn off the unit using a clean operating system shutdown from Windows.

1. Release the power button after blue LED stops blinking and goes dark.
2. The shutdown sequence will begin and shut down the system within ten seconds.

How to install the SFPs

This product uses hot-swappable SFPs, but you should disconnect any cables before changing the SFP modules.

Caution: Wear a grounding strap when handling SFPs to avoid damaging them or other components. Avoid exposure to laser radiation from optical components by keeping the dust plugs installed until you are ready to install the cables.

- ◆ Your **transceivers** can be inserted into any open port and in any order.
- ◆ You can hot-swap the connected transceivers at any time, but it is recommended you then re-launch Observer Analyzer so that the new speeds can be identified.

How to set the IP address

Set the IP address of the hardware appliance while you still have physical access to it, such as immediately after it is racked and cabled. Setting the IP address ensures the hardware appliance has a visible and permanent network presence.

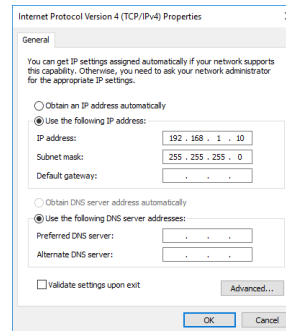
Prerequisite(s):

- ◆ A **KVM** switch or keyboard, monitor, and mouse are connected. The user input devices or KVM switch are only temporarily needed to set the IP address, so you can disconnect them after the IP address is set.
- ◆ The IP, subnet, and gateway or router addresses are available and known to you.

1. Log in to the Windows operating system using the Administrator account and its default password **admin**.

You can change the Administrator account password after logging in. See the Windows documentation if necessary.

2. Select **Internet Protocol Version 4 (TCP/IPv4)**, and click **Properties**.
3. Set the IP address, subnet mask, router or gateway, and DNS server for your environment and click **OK**.



4. Click **OK** again to close the **Properties** dialog for that network connection.

You interact with the hardware appliance through the Apex UI.

1. Navigate to `https://hostname` where `hostname` is the IP address or DNS name for the appliance.
2. Log into the interface using the username **admin** and default password **admin**.

Configuring the LOM or IPMI port

Your appliance comes with an on-board LOM or IPMI port that provides you a dedicated management channel for device maintenance. It allows you to monitor, start, stop, and manage your appliance remotely regardless of whether the appliance is powered on.

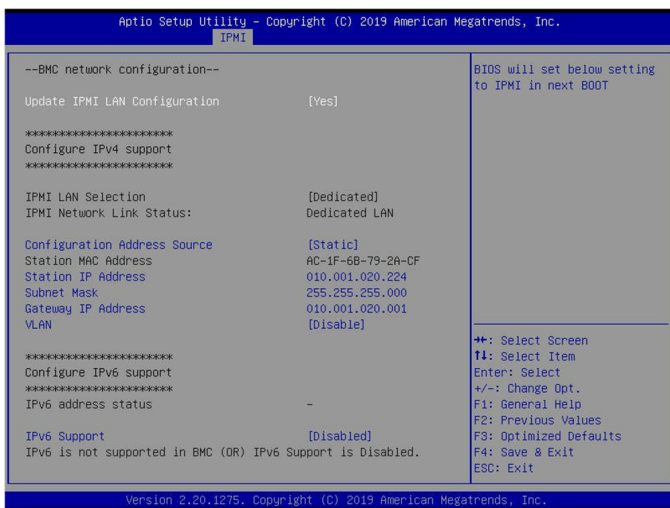
Prerequisite(s):

- ◆ A GigaStor system.
- ◆ Keyboard, monitor, and mouse or KVM attached to the GigaStor.
- ◆ The static station IP, subnet, and gateway/router addresses are available and known to you.

If you want to use Lights Out Management features, you must first configure the IP address for the IPMI port from the BIOS. Then, you should change the administrator password to something different than the default.

1. Connect an Ethernet cable from your router or switch to the IPMI or LOM port.
2. When starting your appliance, press **Delete** during POST to enter the BIOS setup.
3. In the BIOS, choose **IPMI > BMC network configuration**.
4. Set **Update IPMI LAN configuration** to **Yes**.
5. Set **Configuration Address source** to **Static**.
6. Configure the **Station IP address**, **Subnet mask**, and **Router address**.

These values must be valid and usable on your network!



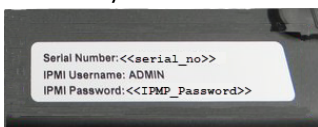
7. Press **F4** to save your changes and to exit the BIOS setup.

The system automatically shuts down and restarts.

Now you can log on to the IPMI web interface and change the default password.

8. To change the default password, open a web browser to <http://<IpAddressOfIPMIport>>, and log on with the user name **ADMIN** in caps and *<password>*.

IpAddressOfIPMIport is the station IP address you configured in step 6. The password is located on a sticker that is affixed to the body of the appliance. The sticker looks very similar to this one.



9. Choose **Configuration > Users**, and select the second user account (**ADMIN** account).
10. Click **Modify User**, and change the password.
11. (Optional) Set up alerts.

There is no audible alarm if there is an issue with a power supply unit. Other alerting options are available. Each must be configured separately using details from your environment.

- To receive email alerts, change the settings at **Configuration > SMTP**.
- To receive SNMP traps, change the settings at **Configuration > SNMP**.
- To receive Syslog messages, change the settings at **Configuration > Syslog**.

You configured the IPMI port and changed the default password. You may have also configured your system to send alerts when certain situations arise.

VIAVI Rail Kit

This rail kit is for 2U and 4U appliances.

Decide on a suitable location for the rack unit that will hold your chassis. It should be a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. A nearby grounded power outlet is required.

How to attach the rails

Rail assemblies must be attached to the chassis and rack before inserting the system into your rack.

Prerequisite(s):

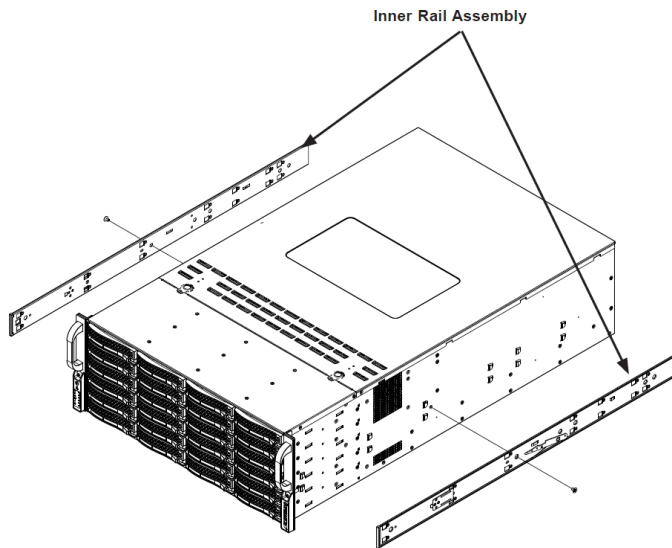
The box your chassis was shipped in should include:

- ◆ two sets of rail assemblies
- ◆ two rail mounting brackets
- ◆ mounting screws and washers to mount the system into the rack

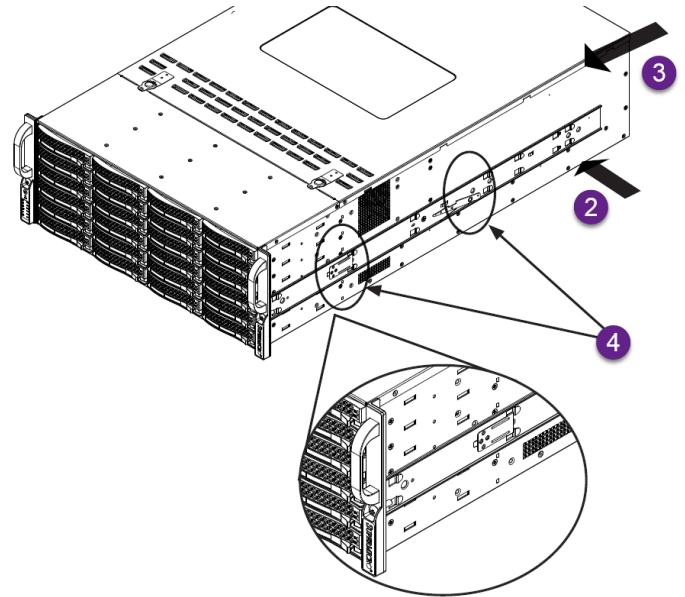
This rail will fit a rack between 26.5" and 36.4" deep.

1. Identify the inner rack rails.

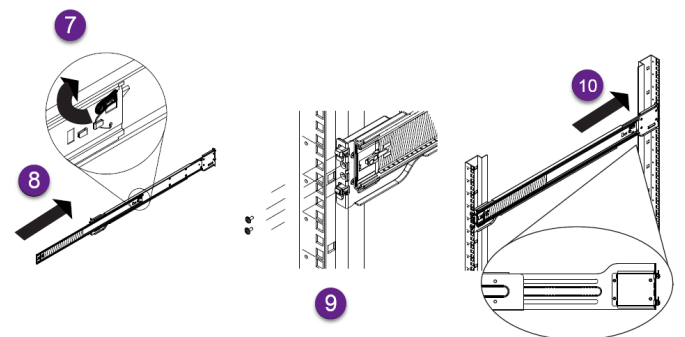
The chassis package includes one pair of rack rail assemblies in the rack mounting kit. Each assembly consists of an inner rail that secures to the chassis and an outer rail that is attached directly to the rack. The inner rails are etched with "L" (Left side) and "R" (Right side). The rail is on the correct side and mounted correctly if the lettering is face-up.



2. Identify the left and right side inner rails. Place the correct inner rail on the side of the chassis, aligning the hooks of the chassis with the inner rail holes. Make sure the rail faces "outward" so that it will fit with the rack's mounting bracket.
3. Slide the rail toward the front of the chassis to hook the inner rail onto the side of the chassis.
4. (Optional) If desired, secure the rail with two flat head M4 x 4mm screws (and washers) as illustrated.
5. Repeat for the other inner rail.



6. Identify the outer rack rails.
7. Press upward on the locking tab at the rear end of the middle rail.
8. Push the middle rail back into the outer rail.
9. Hang the hooks on the front of the outer rail onto the square holes on the front of the rack. If desired, use screws (and washers) to secure the outer rails to the rack.
10. Pull out the rear of the outer rail, adjusting the length until it just fits within the posts of the rack.



11. Hang the hooks of the rear section of the outer rail onto the square holes on the rear of the rack. Take care that the proper holes are used so the rails are level. If desired, use screws (and washers) to secure the rear of the outer rail to the rear of the rack.
12. Repeat for the other outer rail.

How to install the system into your rack

This section provides information on installing a chassis into a rack unit with the rails provided. There are a variety of rack units on the market, so the assembly procedure may differ slightly. Also refer to the installation instructions for your rack unit.

Caution: Do not pick up the server by the front handles. They are designed to pull the system from a rack only.

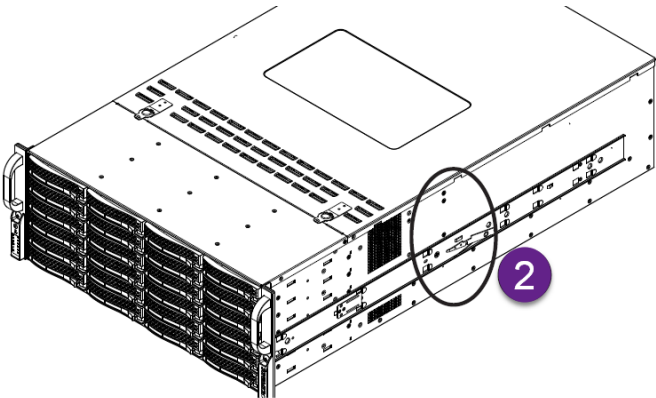
1. Align the chassis rails with the front of the rack rails.

- 2. Slide the chassis rails into the rack rails, keeping the pressure even on both both sides. You may have to depress the locking tabs while inserting. When the server has been pushed completely into the rack, the locking tabs should "click" into the locked position.
- 3. If screws are used, tighten the screws on the front and rear of the outer rails.
- 4. (Optional) Insert and tighten the thumbscrews that hold the front of the server to the rack.

How to remove the server from the rack

Caution: It is dangerous for a single person to off-load the heavy chassis from the rack without assistance. Be sure to have sufficient assistance supporting the chassis when removing it from the rack. Use a server lift.

- 1. Pull the chassis forward out the front of the rack until it stops.
- 2. Press the release latches on each of the inner rails downward simultaneously and move the chassis forward in the rack.



Technical Support

Please contact technical support if your issues are not represented or you need further help.

North America	+1 800 526 7919
South America	+1 800 526 7919
EMEA	+44 1 959 569 880
APAC	+44 1 959 569 880
All Other Regions	viavisolutions.com/contacts
Email	nisupport@viavisolutions.com (North/South America) niuksupport@viavisolutions.com (EMEA/APAC)
Web page and documentation support	nipubs@viavisolutions.com (Please include the web link in your email)
Support hours are 7:00 A.M. to 7:00 P.M. CST/CDT (for North and South America) and 8:00 A.M. to 5:00 P.M GMT (EMEA and APAC).	

