



# G-TAP A Series 2 Hardware Installation Guide

**G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21**

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# Change Notes

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| <b>Product Version</b> | <b>Document Version</b> | <b>Date Updated</b> | <b>Change Notes</b> |
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# Introducing G-TAP A Series 2

G-TAP A Series 2 is the first installment in a line of active TAPs from G-TAP A Series 2, that are designed to eliminate network link downtime on network connections, monitoring link state and power state of connected devices, as well as, providing network security. This section introduces G-TAP A-TX21, G-TAP A-TX21-C and G-TAP A-SF21 with a detailed description on the features, functions and an orientation to the physical layout of the TAP.

## G-TAP A Series 2 Overview

The G-TAP A Series 2 is a line of active network TAP that mirrors 100% of network traffic, implements the “Always-On” architecture, has increased density, and improved security. The new G-TAP A Series 2 will function on GigaVUE-OS (X86 base) used by the GigaVUE HC Series and can be managed in GigaVUE-FM.

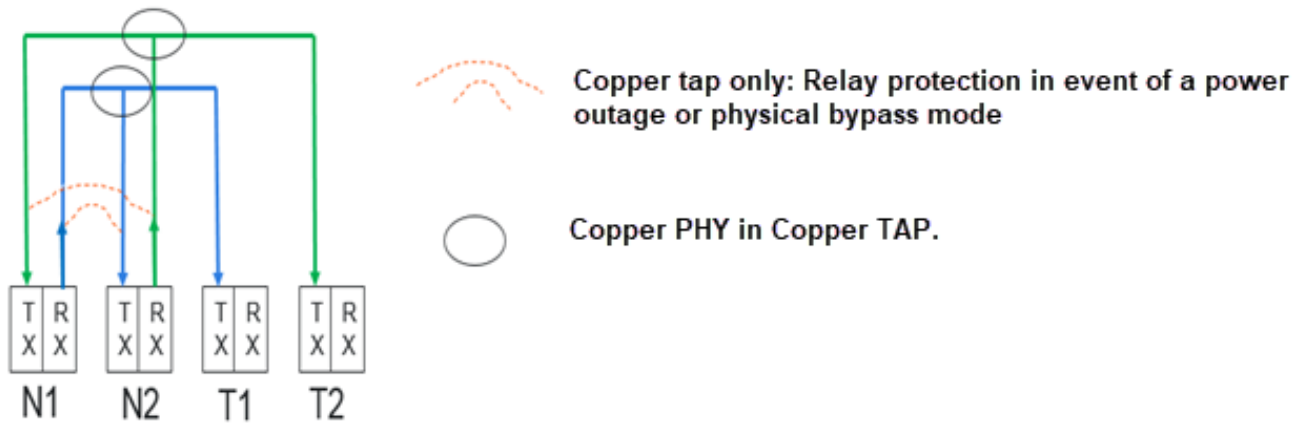
A network TAP is a hardware component device that connects directly to the cabling infrastructure to split or copy packets of network to use in analysis, security or general network management. Active TAPs are a type of network TAP that require power source to regenerate signals. These TAPs provide visibility to sections of the network that would otherwise go unmonitored.

Active taps (G-TAP A-TX21) offer battery backup to extend usage of the TAP during power failures. During a power outage, an active TAP cannot regenerate the signal, so it becomes a point of failure. G-TAP A-TX21 incorporates bypasses to mitigate this issue. When the battery begins to die, the TAP will offer additional failover capabilities.

For example, when G-TAP A-TX21 loses power, electromagnetic relays fall into place to physically close a link to allow traffic to continue flowing through the network. The monitoring traffic stops, but at least the network traffic is protected. Do be aware that when the relay closes, a renegotiation takes place so a few packets would be affected

G-TAP A-SF21 does not provide relays to bypass traffic.

TAP and data diode function as illustrated below.



**Figure 1** TAP and Diode Function

## G-TAP A Series 2 Equipment

The G-TAP A Series 2 introduces the following TAP models :

- G-TAP A-TX21
- G-TAP A-TX21-C
- G-TAP A-SF21

### G-TAP A-TX21

- o 1 Rack Unit Footprint
- o Four Copper Taps (10 M /100 M /1000 M). Each TAP has two network ports and two tool ports.
- o 2 x 40 mm Fans
- o Front to Rear airflow
- o External AC/DC power adapter
- o Increased Security (SSH and SNMPv3 support)
- o Supported by GigaVUE-OS
- o Manageable from GigaVUE-FM

**NOTE:** G-TAP A-TX21-C is similar to G-TAP A-TX21 on all physical features and functionalities except that its management port and console port are disabled.

## G-TAP A-SF21

- o 1 Rack Unit Footprint
- o Four SFP /SFP+ (1Gb/10Gb) TAP ports.
- o 2 x 40 mm Fans
- o Front to Rear airflow
- o External AC/DC power adapter
- o Increased Security (SSH and SNMPv3 support)
- o Supported by GigaVUE-OS.
- o Manageable from GigaVUE-FM.

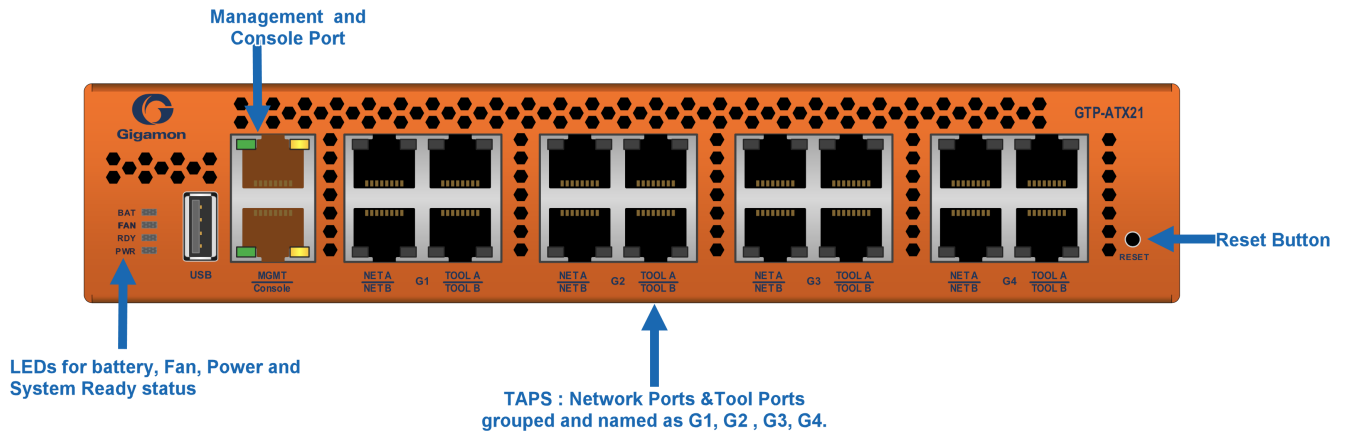
## Introducing the G-TAP A Series 2 Chassis

The G-TAP A Series 2 chassis consists of a 1RU, 8.5" wide chassis with management, network, and tool ports at the front and power connections at the rear.



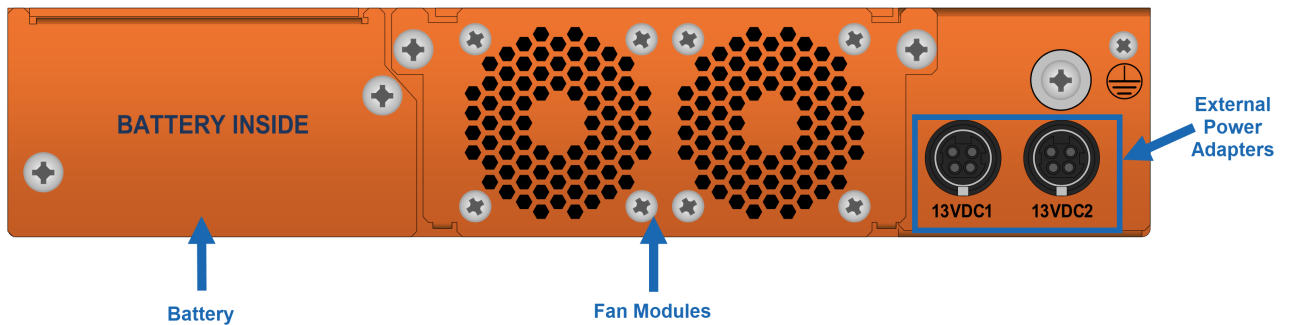
## G-TAP A-TX21

G-TAP A-TX21 Front Chassis shows the ports at the front of the chassis



**NOTE:** For G-TAP A-TX21-C the management port and console port will be disabled.

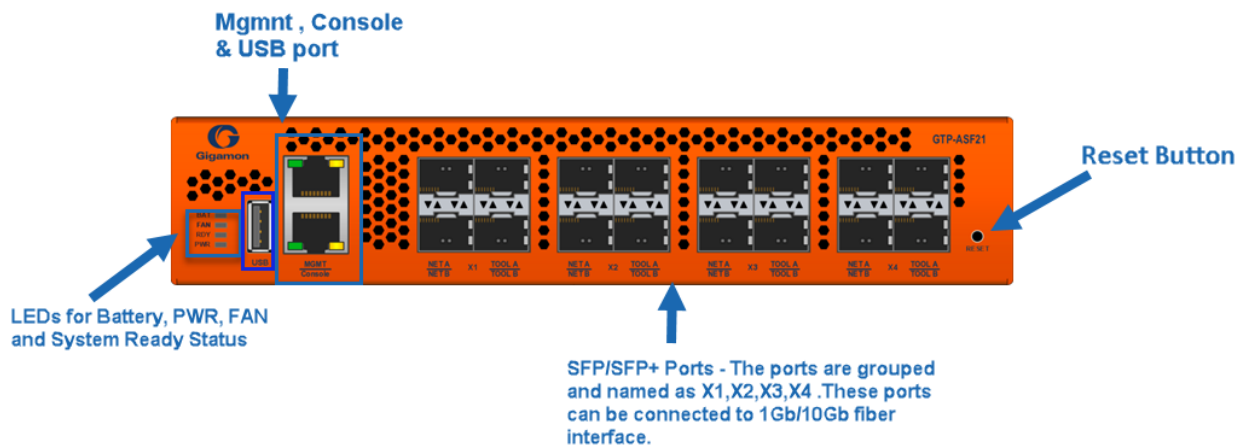
G-TAP A-TX21 Rear Chassis shows the rear of the chassis which includes fans and power supply modules.



**NOTE:** This chassis is same for G-TAP A-SF21 as well.

## G-TAP A-SF21

G-TAP A-SF21 front chassis have four SFP/SFP+ port groups named as X1,X2,X3,X4,management, console and USB ports. The front chassis also has LEDs and a reset button. The rear of the chassis includes fans and power supply modules and is similar to as shown for G-TAP A-TX21 rear chassis.



## Chassis Cooling

G-TAP A Series 2 has one fan module in chassis. The fan module has 2 x 40 mm fans assembly and a PCB assembly with protection mechanism on main board . The fan assemblies will plug into the main board directly. The chassis is designed for front to back airflow with fans on the rear of the chassis drawing cool air from the front

The fans would run at 50 percentage of maximum RPM at the start of chassis . The temperature sensor has unique thresholds such as ;Start Ramp, Max Speed, OverTemp and Shutdown. If temperature is higher than the threshold, the software would shut down the chassis. If a removed or a failed fan tray is running on the system, then the software will detect a temperature rise and trigger the shutdown at the appropriate measurement.

## Ports & LEDs

The Port description and LED status of G-TAP A Series 2 are as described in below tables G-TAP A Series 2 Chassis Ports and G-TAP A Series 2 Chassis LED Status respectively.

Table 1: G-TAP A Series 2 Chassis Ports

| Ports                | Description   |
|----------------------|---|
| USB Port             | The USB port is used to upgrade software using a software image on an external USB drive.   |
| Management Ports     | <p>The Standard 10/100/1000 RJ45 Ethernet port supports remote connections to the GigaVUE-OS using SSH .</p> <p><b>NOTE:</b> Power over Ethernet connections (PoE) are not applicable for G-TAP A-TX21.</p>   |
| Console Ports        | Initial tap configuration is performed in the G-TAP CLI over the serial RJ-45 Console port. Serial Console port accepts terminal connections for configuration of G-TAP A Series settings, including time, network, and SNMP settings.  |
| Network & Tool Ports | <p>The network ports tap the link .There are two network ports, NA, NB for each TAP ports .Tool ports feed the tapped data to connected tools. There are two tool ports, TA, TB .The relays or cross-point switches enable the bypass between network port NA and network NB when power is down and the backup battery drops below 5% of charge capacity. Network ports allow POE /POE + pass through.</p> <p>G-TAP A-SF21 does not have relays to bypass traffic and will not function without main power supply or battery power.</p> |
| SFP/SFP+ Ports       | The G-TAP A-SF21 accepts SFP and SFP+ transceivers which allow 1GB /10Gb fiber and copper interface. The transceivers in the monitor/tool ports must run at the same speed as those in the network ports, but they do not need to be the same medium.   |
| Reset Button         | <p>The reset button allows to hard reset theG-TAP A Series 2.</p> <p><b>NOTE:</b> It is recommended to halt the system using the "reload halt" command before utilizing the reset button to shutdown and avoid unwanted disk corruption.</p>  |

Table 2: G-TAP A Series 2 Chassis LED Status

| LED Name     | Color   | Description   |
|--------------|---|---|
| System LED   | <ul style="list-style-type: none"> <li>● OFF</li> <li>● Solid Green</li> <li>● Solid Red</li> </ul>                     | <ul style="list-style-type: none"> <li>● No Power to System</li> <li>● Normal Operation</li> <li>● Alarm</li> </ul>   |
| Fan Status   | <ul style="list-style-type: none"> <li>● OFF</li> <li>● Green</li> <li>● Red</li> </ul>                                 | <ul style="list-style-type: none"> <li>● Fan Tray Absent</li> <li>● Normal Operation</li> <li>● Fan Failed</li> </ul>   |
| Power        | <ul style="list-style-type: none"> <li>● OFF</li> <li>● Solid Green</li> </ul>  | <ul style="list-style-type: none"> <li>● Power is Disconnected</li> <li>● Normal Operation</li> </ul>   |
| Battery      | <ul style="list-style-type: none"> <li>● OFF</li> <li>● Solid Green</li> <li>● Blinking Green</li> <li>● Red</li> </ul> | <ul style="list-style-type: none"> <li>● Battery Absent</li> <li>● Normal Operation</li> <li>● Battery Test is running</li> <li>● Battery charge is less than 25%.</li> </ul> |
| Link LED     | G-TAP A-TX21 <ul style="list-style-type: none"> <li>○ OFF</li> <li>○ Solid Green</li> </ul>                             | <ul style="list-style-type: none"> <li>○ No Link</li> <li>○ Link &amp; Activity</li> </ul>  |
|              | G-TAP A-SF21 <ul style="list-style-type: none"> <li>○ OFF</li> <li>○ Solid Green</li> </ul>                             | <ul style="list-style-type: none"> <li>○ Link is up or Signal detect Is YES</li> <li>○ Link is Down or Signal detect is NO</li> </ul>   |
| Activity LED | G-TAP A-TX21 <ul style="list-style-type: none"> <li>● OFF</li> <li>● Blinking Green</li> </ul>                          | <ul style="list-style-type: none"> <li>● No Activity</li> <li>● Activity detected.</li> </ul>   |

**NOTE:** Activity LED will be always disabled for G-TAP A-SF21.

## G-TAP A Series 2 Specifications

This section describes the physical ,environmental , power adapter and battery management specifications of G-TAP A Series 2. Refer to [Physical Dimensions and Weight](#) and [Environmental Specifications](#) for details:

Table 3: Physical Dimensions and Weight

| Specification | Value |
|---------------|-------|
| Width         | 8.75" |
| Height        | 1.75" |

| Specification     | Value   |
|-------------------|---|
| Depth             | 10.25"  |
| Weight            | 5.5 lbs for G-TAP A-TX21/G-TAP A-TX21-C.<br>5.25 lbs for G-TAP A-SF21 |
| Weight (Shipping) | 8.64 lbs for G-TAP A-TX21/G-TAP A-SF21<br>8.40 lbs for G-TAP A-SF21   |

Table 4: Environmental Specifications

| Specification                         | Value                         |
|---------------------------------------|-------------------------------|
| Operating Temperature                 | 32° F to 104°F (0°C to 40°C)  |
| Operating Relative Humidity           | 20% to 80%, non-condensing    |
| Recommended Storage Temperature       | -4°F to 158°F (-20°C to 70°C) |
| Recommended Storage Relative Humidity | 15% to 85%, non-condensing    |
| Altitude                              | Up to 15,000ft. (4.6km)       |

## Power Adapter Specifications

G-TAP A Series 2 uses external AC-DC desktop power adapters that provides 1+1 redundancy . The power adapters are operational for the normal working of chassis and if one of the adapters fails, the other adapter provides the required power to system. One power supply fail , will not cause an interruption on the expected performance of the chassis. The shipment package will include only one adapter, please order beforehand to receive the redundant adapter.

The power adapter specifications for G-TAP A Series 2 are explained in the table below :

Table 5: Power Adapter Specifications

|                                  |   |
|----------------------------------|---|
| <b>Input</b>                     | 90~264 VAC  |
| <b>AC input plug</b>             | Available in multiple regions, e.g. US, EU, UK, and Australia                           |
| <b>Output</b>                    | 13 VDC @ (100W ~ 120W),   |
| <b>Temperature range</b>         | 5~45°C  |
| <b>Efficiency standard level</b> | VI  |
| <b>Compliance</b>                | FCC, CE, UL, ROHS..., please see chapter <a href="#">System Compliance</a> for details. |

## Battery Specification

G-TAP A Series 2 offers backup battery up-to one hour to continue normal operation after an external power failure. For G-TAP A-TX21 if the battery shuts down before the external power can recover, the network ports will be bypassed by mechanical relays, all other ports including tool ports, will be shut down.

**NOTE:** Battery back-up power is guaranteed for at least forty-five minutes in G-TAP A-TX21. For G-TAP A-SF21 the battery back-up power will depend on the type of optic cables used.

### Battery Optimization through CPU Hibernation

G-TAP A Series 2 can be configured to hibernate and wake up periodically so that the battery power usage is optimized. The G-TAP A Series 2 follows the below algorithm to ensure that battery usage is optimized:

- If the main power goes down and if cpu-hibernation feature is enabled, then the device will go into a deep sleep so that CPU power consumption is reduced. This does not impact the traffic.

- Once in hibernation ,the device wakes up after a pre-configured duration and checks if main power is available. If main power is available, the device comes out of hibernation state. Otherwise the device waits for 50 seconds to confirm that main power is not available after which the device resumes hibernation for the pre-configured time.
- The device cannot be forced to come out of hibernation mode if the main power is not available.

## Enable through CLI

The configuration commands to initiate CPU hibernation using GigaVUE-OS CLI are as follows:

1. **#battery optimization global cpu-hibernate <value> sleep-time <value>**
  - o global – Refers to the system-level configuration.
  - o cpu-hibernate – Refers to the battery level after which device enters the hibernation state.The value specifies the battery level percentage which ranges from between 85 to 25. When this value is hit, the device will go into hibernation state.
  - o sleep-time - This indicates the periodic CPU Hibernation sleep duration.The value specifies the sleep time in minutes which ranges from 6 to 30

**NOTE:** By default, CPU hibernation is disabled.

2. **# show battery optimization global**
3. **#no battery optimization global cpu-hibernate**

Refer to *GigaVUE-OS CLI Reference Guide* for more details.

## Enable through GigaVUE-FM

CPU hibernation can be enabled from GigaVUE-FM through the following path; **System> Global Settings> Power Settings**. Click on '**Edit**', to enable CPU hibernation and mention the threshold percentage at which the device should hibernate. For G-TAP A-SF21 , the ports can be forced to hibernate based on the threshold levels selected for each port as shown below.

The screenshot shows the GigaVUE-FM web interface. The top navigation bar includes 'GigaVUE-FM' and utility icons. The left sidebar lists various settings categories: SETTINGS (Tasks, Reports, Authentication, High Availability, Tags, System), SUPPORT (API Reference, App Protobook, About), and a gear icon for 'FM Instance: GigaVUE-FM'. The main content area is titled 'SNMP' and has sub-tabs for 'SNMP Traps', 'SNMP Throttling', 'Port Utilization Thresholds', and 'Energy Saver'. An 'Edit' button is in the top right. The 'Energy Saver' section contains three sub-sections:

- CPU Hibernation:** Put CPU to hibernation mode when battery levels reach within 5-10% of the specified threshold. A table shows 'Battery Level' set to 'Disabled'.
- Down - Unused Port:** Force ports down when their battery levels reach the specified threshold. This setting only applies to administratively enabled ports with link status down. A table lists ports X1 through X4, each with an 'Alarm' status.
- Down - Monitor Port:** Force monitor ports down when battery reaches the specified levels. A table lists ports X1 through X4, each with an 'Alarm' status.



## Limitations

1. GigaVUE-VM support is not available for this feature.
2. The device GigaVUE-OS CLI , Console and SSH will not be available when the device is in hibernation

While the device is in hibernation ,configurations cannot be modified and applied. However a G-TAP device managed by GigaVUE-FM can store and apply the configuration once the main power is available. Global configurations can be applied to multiple devices that are managed by GigaVUE-FM through Templates. These configurations will go through Deployer. To override the GigaVUE-FM global level settings, navigate to the device and override the configuration.

# Assembling G-TAP A Series 2

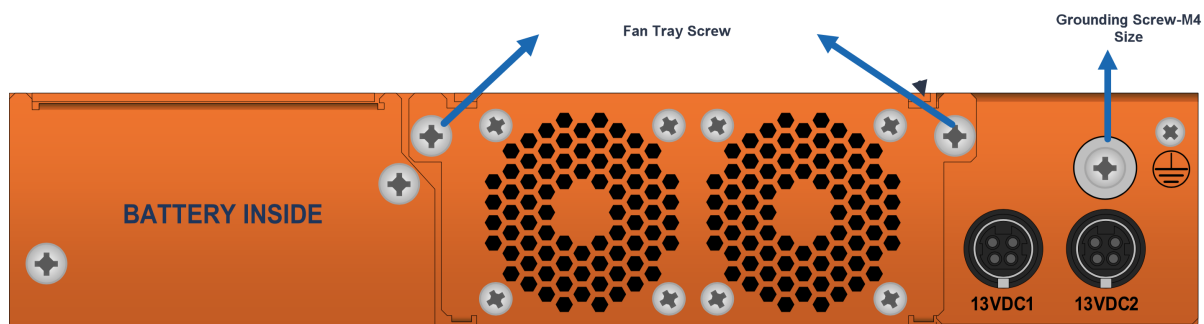
**IMPORTANT:** Always use an ESD -preventive wrist or ankle strap and ensure that it makes good skin contact when installing or removing tap and its Fan, battery and adapter. The strap can be connected to one of the following:

- ESD wrist strap connector.
- Any unpainted surface on the chassis.

## Installing and Removing a Fan Tray

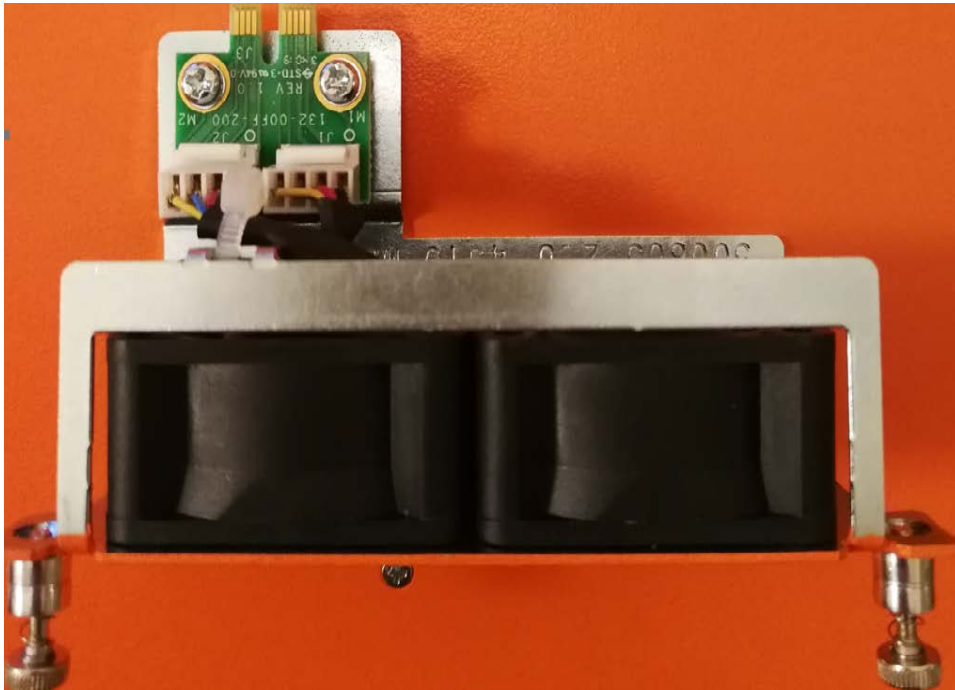
The G-TAP A Series 2 is shipped with its fan tray installed. The fan tray is field-replaceable in case one of the fan fails. During normal operation, to stop the fan use GigaVUE-FM or GigaVUE-OS CLI rather than fan tray removal. Follow the below steps to install or remove a fan tray :

1. Place the tap upright on a flat surface or on rack.



**Figure 2** G-TAP A-TX21 Rear Chassis

2. Loosen the screws on the fan tray .
3. Gently pull the fan tray out.



4. Insert the new fan tray in to the chassis with care.
5. Tighten the screws .If the fan was stopped by command before fan replacement, please restart fan after tightening the screw.

**NOTE:** Fan tray replacement must be done in two minutes to avoid running the system from over temperature or heating.

## Rack-Mounting G-TAP A Series 2

This section describes how to rack-mount the G-TAP A Series 2 chassis in a standard 1RU rack space using the hardware provided with the chassis. You can install the G-TAP A Series 2 two-post racks with a minimum depth of 7 inches.

### Safety Precautions

Before you get started rack-mounting the G-TAP A Series 2, make sure you have read the following safety precautions:

1. There are a wide variety of racks available on the market.
2. Consult your rack vendor for mounting instructions before installing the G-TAP A-TX21. Ensure you install any stabilizers provided for the rack before installing the chassis. Unsecured racks can tip over and cause injury or death.
3. Ensure that you install devices from the bottom up with the heaviest devices at the rack bottom.

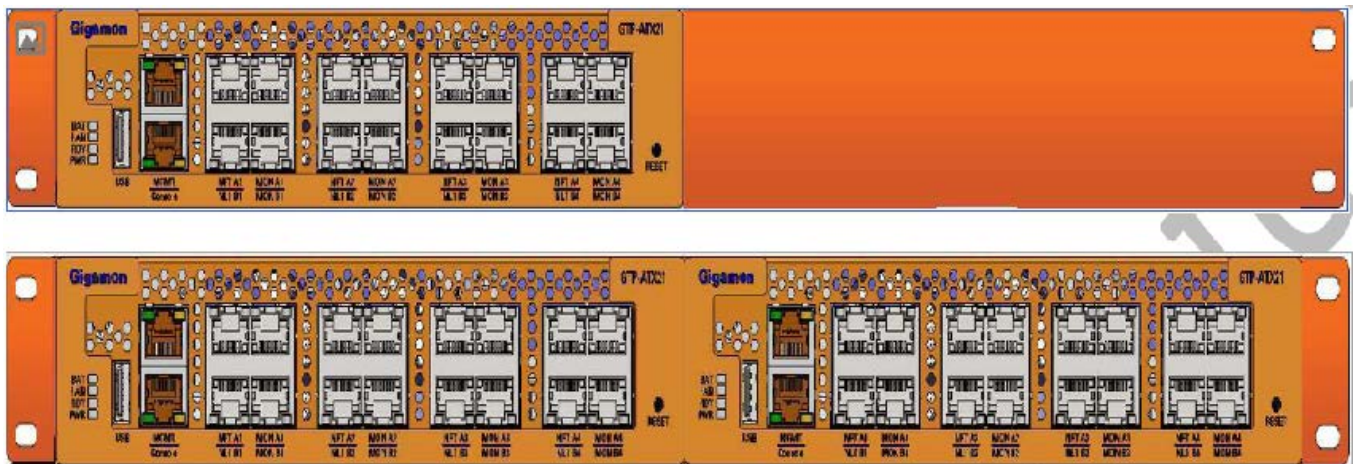
4. Make sure you provide adequate ventilation to the nodes installed in the rack.

## Rack-Mounting Procedure

The G-TAP A Series 2 is shipped with its rack ears (and screws) attached. Install the rack ears facing towards the node for a front-mounting position. You can reverse the direction of the rack-ears to center-mount the node.

Use the following procedure to rack-mount G-TAP A Series 2 :

1. Decide whether you want to front-mount or center-mount the chassis and whether you want to mount single tap or two taps together. Refer [Rack Ears for Front Mount](#) , to center-mount reverse the Rack ears.



**Figure 3** Rack Ears for Front Mount

2. Make sure you have not installed battery pack in the chassis yet. Gigamon recommends rack-mounting the G-TAP A Series 2 before installing battery pack to make it easier to handle the chassis during installation.
3. Select a suitable location for the rack that will hold the G-TAP A Series 2 chassis. Choose a location that is clean, dust free, and well-ventilated. You will need access to grounded power sources. Avoid areas where heat, electrical wire, and electromagnetic fields are generated. Plan for enough clearance in front of a rack so you can access the ports easily ,approximately 25 inches ( 63.50 cm) and enough clearance in the back of the rack to allow sufficient airflow and installation of the rear components such as power supply and battery.
4. Carefully lift the chassis into the rack and place a screw on each side to hold the chassis.
5. Tighten the screws and add additional screws to secure the node

The G-TAP A Series 2 comes with one shot rack ear, one long rack ear, and one splicer plate. Install single chassis with one shot ear and one long ear; and to install two chassis together, first install splicer and then install taps with two shot rears.

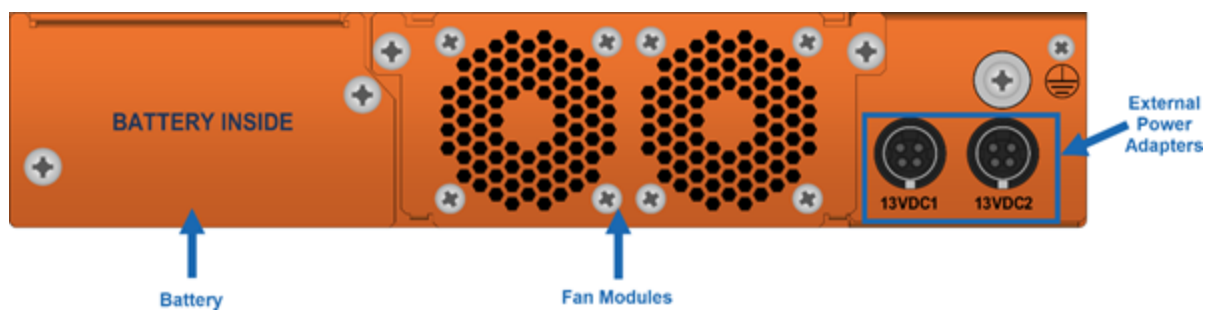
# Connecting and Configuring G-TAP A Series 2

This section describes how to assemble, connect, and configure the G-TAP A Series 2 device.

## Connecting Power to the G-TAP A Series 2

The G-TAP A Series 2 uses AC/DC adapter, and the 1+1 redundant configuration is optional . To operate the node only a single power supply module is required . The steps to connect power adapters are as follows:

1. Plug power adapter DC header into each power input modules at the rear of the G-TAP A Series 2.



2. Plug an approved C5 power cable into each of the power adapter. Plug the other end of the power cables into a power source that can supply adequate power. For optimal power protection, plug the power adapters into separate circuits.
3. When connecting to an external AC power source, ensure that a Surge Protective Device (SPD) is installed at the AC power inlet.
4. If you have not installed the battery pack , the power is turned on when the adapter is plugged in, and power is turned off when the adapter is removed. If you have installed the battery, G-TAP A Series 2 will remain always on until battery drains.

**NOTE:** G-TAP A-SF21 battery operation time depends on the SFPs used.

To remove or replace a power adapter, refer to [Remove or Replace the Power Adapter](#)

## Remove or Replace the Power Adapter

To remove or replace a power adapter follow below steps :

1. Disconnect the AC power cord to power down the adapter.
2. Disconnect adapter's DC header.
3. If new adapter is needed, replace the adapter and connect it back.
4. Repeat the first and second steps for other power adapter in the G-TAP A Series 2 chassis.

Refer [Connecting and Configuring G-TAP A Series 2](#) to install the battery.

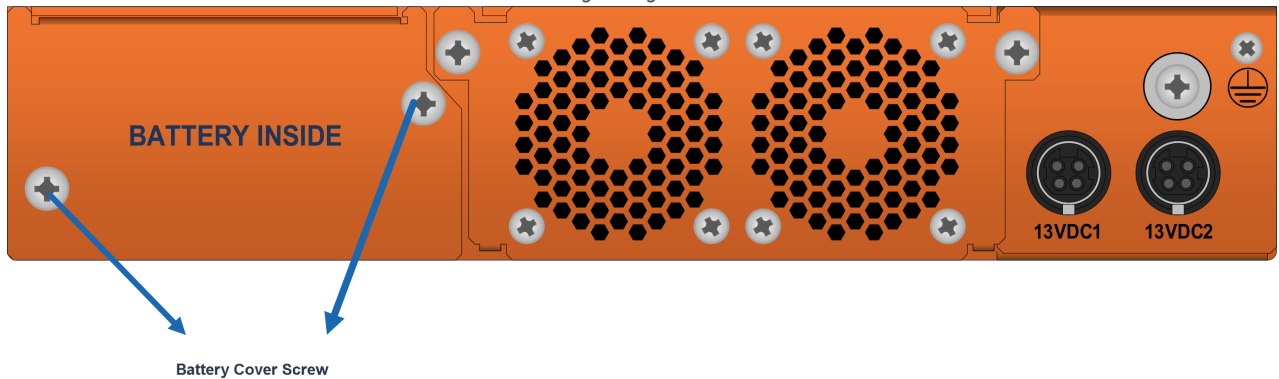
## Installing the G-TAP A Series 2 Battery

The G-TAP A Series 2 is shipped with its backup battery uninstalled. The instructions below helps to install the backup battery. The backup battery provides a fail-safe in case all primary power sources (AC, DC ) are unavailable. Primary power sources constantly charge the backup battery so it's ready to consume the power load in the event of a power failure on the primary sources. Battery charging from empty to full will take up to three hours

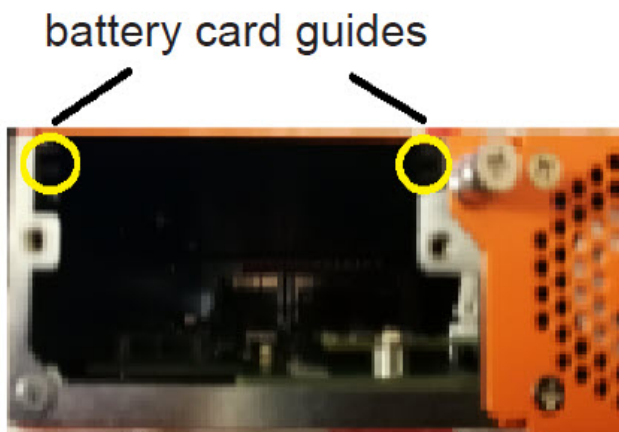
**NOTE:** You can install the battery without disconnecting any existing power connections.

Install the backup battery as follows:

1. Locate the backup battery in your product shipment.
2. Place the tap upright on a flat surface.
3. Loosen the thumbscrews on the battery tray.



4. Remove tape completely from golden finger of battery tray . After tape removal , handle the battery with care, to avoid golden finger's contact with any metal surface.
5. Remove edge card protection tape from battery pack .



Battery cover removed

6. Align battery pack's wings to the card guides on the chassis and fully insert battery pack in chassis .



7. Orient the battery tray to insert it into the chassis
8. Slide the battery tray into the battery slot. When the battery is fully installed, you should be able to read the text on the battery tray.

Power supply to the G-TAP A Series 2 is ensured with the AC/DC desktop adapters that would provide 1+1 redundancy and battery. Please refer to the SKU adapter data-sheet to order redundant one.

**CAUTION: ALWAYS USE BATTERIES PROVIDED BY Gigamon Inc. RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.**

When a battery is installed to a G-TAP A Series 2 for the first time, it is recommended that you do a manual battery exercise cycle to ensure that battery management is set to the normal condition. The battery exercise cycle can be done by running BET command either in GigaVUE-FM or in CLI.

## Connecting Console and Management Ports

G-TAP A Series 2 TAPs include both a serial Console port and a 10/100/1000Mb management port. Follow the below instructions to connect the Console and Mgmt ports:

1. Connect the RJ45 end of the DB9-RJ45 serial cable, to the Console port.
2. Connect the DB9 end of the cable to a COM port on a PC or terminal server.
3. Use a standard Ethernet cable to connect the Mgmt port to a network with access to a destination station for SNMP traps.

**NOTE:** Auto-negotiation is always enabled on the G-TAP A Series 2 node's Mgmt port. To avoid duplex mismatches, make sure auto-negotiation is also enabled on the network port to which you connect the Mgmt port.

**NOTE:** G-TAP A-TX21-C is similar to G-TAP A-TX21 on all physical features and functionalities except that its management port and console port are disabled.

## Connecting to the G-TAP A-TX21 CLI

The initial configuration of the G-TAP A-TX21 is performed over the Console port. Once you have used the Console port to configure the Mgmt port's network properties, you can configure the TAP remotely over the Mgmt port's network connection. The same commands are available in the command-line interface regardless of whether you use the Console or Mgmt port.

**NOTE:** You must configure the Mgmt port in order to send SNMP traps and download application images. These features are not available over the Console port

## Access the Command-Line Interface over the Console Port

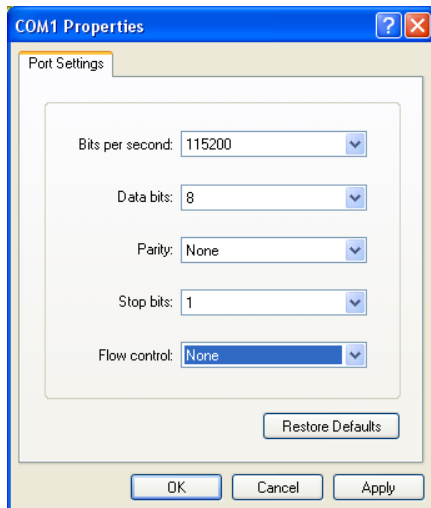
Use the console port on the left side of the base chassis to access the G-TAP A Series 2 as follows:

1. Make the basic power and console cable connections described in [Connecting and Configuring G-TAP A series](#)
2. Start a terminal application on the PC. Common terminal applications include TeraTerm, PuTTY, and Hyperterminal.
3. Select the COM port connected to the console cable attached to control module. For example, **COM1**.



4. Configure the port settings for the console connection as follows:
  - o **Bits per second** – 115,200
  - o **Data bits** – 8
  - o **Parity** – None
  - o **Stop bits** – 1
  - o **Flow control** – None

[Connecting and Configuring G-TAP A Series 2](#) shows an example of how these settings are configured in Hyper-terminal.



**Figure 4** Setting COM Port Properties for the Console Connection

5. Start the terminal connection. You may need to press **Enter** a few times before you see the **login:** prompt.
6. Log in to the command-line interface with the following default user account and password:

**User:admin**

**Password:adminn123A!**

The **configuration jump-start** automatically starts and forces a password change. The system administrator must change the password on the default **admin** account through the **jump-start** script. The default password (admin123A!) is no longer allowed. Refer to [Run the Jump-Start Script](#) for details.

A password must meet the following standards:

- include 8-30 characters
- include at least one numeral
- include at least one upper case letter
- include at least one lower case letter
- include at least one special character (for example, !, @, #, \$, %, ^, &, or \* – ASCII 0x21, 0x2F, 0x3A, 0x40, 0x5B, 0x5F, 0x7B, 0x7E)
- Must not include the user name or parts of full-name.

At the Admin password? prompt in the **jump-start** script, enter a new password that meets the standards, then confirm the password.  
You will also configure some Admin and Monitor level users with the procedure described in [Initial User Account Configuration](#).

## Run the Jump-Start Script

Gigamon provides G-TAP A Series 2 with a **jump-start** script that walks you through the process of configuring basic settings. Run this script as follows:

1. Switch to **Configure** mode.

The G-TAP A-TX21 and G-TAP A-SF21 provides three command entry modes, each with increasingly powerful rights – **Standard**, **Enable**, and **Configure**. The jump-start script is only available in Configure mode:

- a. Type **en <Enter>** to switch to Enable mode.

The system prompt changes from **[hostname]>** to **[hostname] #**.

- b. Type **config t <Enter>** to switch to Configure mode.

The system prompt changes from **[hostname] #** to **[hostname] (config) #**.

2. Run the jump-start script with the following command:

**(config) # config jump-start**

3. Follow the jump-start script's prompts to configure each of the settings listed in the following table.

**NOTE:** If you change your mind about a particular setting, you will have a chance to change it at the end of the script.

|   |  |
|---|--|
| <b>Hostname</b>                         | The hostname appears in the system prompt and is used to identify the chassis in SNMP traps.   |
| <b>Management Port Network Settings</b> | Use either DHCP or specify a static IP address and netmask. If you do not use DHCP, you are prompted to configure the following additional options: <ul style="list-style-type: none"> <li>■ <b>Default Gateway</b><br/>Supply the IP address of the default gateway for the node.</li> <li>■ <b>DNS Server</b><br/>Supply the IP address of the DNS server for the node. A valid DNS server is required for successful use of TACACS+.</li> <li>■ <b>Domain Name</b><br/>Supply the domain name for the node (for example, mycompany.com).</li> </ul> |

|                       |  |
|-----------------------|--|
| <b>Enable IPv6?</b>   | You can enable the use of IPv6 for the management port. IPv6 is used in addition to IPv4 if you enable this option. If you enable the IPv6 you have the option of enabling IPv6 auto-configuration or specifying a static address. |
| <b>Admin Password</b> | The password for the <b>admin</b> account must be changed to a non-default password.   |

4. Review your settings. You can change a setting by specifying its listed line number and re-entering the setting.
5. When you are satisfied with your settings, exit the script as prompted. G-TAP A-TX21 and G-TAP A-SF21 automatically saves your settings.
6. Restart the node with the **reload** command.

## Initial User Account Configuration

Before you start mapping traffic, you must change the password for the **admin** account and add a few other accounts for use by different level users. (You may have already used the jump-start script to change the password for the **admin** account.)

### Changing the admin Account Password

To change the password for the **admin** account using the **username** command, refer to the following:

```
(config) # username admin password <password>
```

Passwords must meet the following standards:

- o Include 8-30 characters.
- o Include at least one numeral
- o Include at least one capital letter
- o Include at least one special character (for example, **!**, **@**, **#**, **\$**, **%**, **^**, **&**, or **\*** – ASCII 0x21, 0x2F, 0x3A, 0x40, 0x5B, 0x5F, 0x7B, 0x7E).

Enter a new password that meets the standards and confirm the password.

### Setting Up Some Basic Accounts

Next, you will probably want to set a few user accounts with different access levels.

The TAP has a local account database that can optionally integrate with an LDAP, RADIUS, or TACACS+ server for authentication. Any account you want to authenticate using an external AAA server must have a matching account name in the local database.

Authentication, user levels, and roles are discussed in detail in the **GigaVUE-OS CLI Reference Guide**. For now, however, it is easiest to simply create a few basic user accounts with different privilege levels. In general, user privileges are as follows:

- **Admin** users have access to all command modes, including Standard, Enable, and Configure. They also have full permissions for all network, tool, and stack ports.
- **Operator** users have access to all command modes, including Standard, Enable, and Configure. However, they only have access to the network and tool ports associated with their user group.

New users are created with the operator role by default. You can add additional roles with the **username <username> roles add <roles>** command.

- **Monitor** users have access to the Standard and Enable command modes. They cannot configure packet distribution (or any other global G-TAP A-TX21 and G-TAP A-SF21 node options), but they can use the **show** command to review many of the settings in place on the node.

The following **username** commands create a new **admin** user and a new **operator** user:

| Command   | Comments   |
|---|--|
| <pre>(config) # username psandoval password Nine9.Eight8! (config) # username psandoval roles add admin</pre> | Creates a new account named <b>psandoval</b> with a password, and grants it admin privileges.  |
| <pre>(config) # username bcrawford password Seven7.Six6!</pre>  | Creates a new account named <b>bcrawford</b> with a password. New users are automatically created with default operator level privileges, so there is no need to grant an additional role. |

## Need to Change Any Settings?

If you need to change any of the settings you made in the jump-start script, you can either run the script again or change individual settings using the following commands in the Configure command mode:

- Use the **hostname** command to change the node's hostname.
- Use the **interface eth0** command to reconfigure or fine-tune Mgmt port settings, including basic IP settings (DHCP or static address and subnet mask) and physical parameters (duplex, MTU, and speed).
- Use the **ip** command to change the default gateway, DNS server, and domain name.
- You can also use the **username admin password <password>** command to change the **admin** user's password. Refer to [Changing the admin Account Password](#).

Refer to [The Basic Commands](#) for a quick summary of the available G-TAP A Series 2 commands.

## Command Line Basics

The G-TAP A Series 2 command-line interface provides a simple environment for configuring TAP settings. Once you have logged in to the system, the CLI appears with the **G-TAP A-TX21**, **G-TAP A-SF21 > prompt**. The basic CLI commands for G-TAP A Series 2 are listed below:

Table 6: The Basic Commands

| Command   | Description  |
|---|--|
| <b>aaa</b>  | Configure authentication, authorization, and accounting settings   |
| <b>banner</b>                                       | Set a system login banner  |
| <b>boot</b>   | Configures system boot parameters  |
| <b>battery</b>                                      | Views the battery presence, status and execute test results. The commands are as follows:<br><b>show battery status</b><br><b>battery test execute</b><br><b>battery test cancel</b>   |
| <b>battery optimization</b>                         | Optimizes battery drain when both power supplies are down for G-TAP A-SF21. Battery optimization can be done in the following methods such as: <ul style="list-style-type: none"> <li>● Switch-Off Unused Ports</li> <li>● Switch -Off Monitor Port.</li> </ul> The command is as follows <b>battery optimization</b> . You can also utilize the command show battery optimization to view the battery optimization details. |
| <b>battery optimization global cpu-hibernate</b>    | Initiates CPU hibernation for G-TAP A Series 2.<br>You can also utilize the command show battery optimization global to view the CPU hibernation details   |
| <b>no battery optimization global cpu-hibernate</b> | Disables the CPU hibernation for G-TAP A Series 2 .  |
| <b>clear</b>  | Resets statistics, caches, counters, or can be used to reset information   |
| <b>cli</b>  | Configure CLI shell options.   |
| <b>clock</b>  | Set the system clock or timezone   |
| <b>configuration</b>                                | Manage configuration files   |
| <b>coreboot</b>                                     | Upgrades the BIOS image on G-TAP   |
| <b>debug</b>  | Generates a dump file for debugging issues with Gigamon Technical Support  |

| Command              | Description  |
|----------------------|--|
| <b>email</b>         | Configures automatic email notifications for events  |
| <b>exit</b>          | Exits Configure mode and returns to Enable mode or logs out of the CLI.                                  |
| <b>file</b>          | Manages TCP and debug dump files on disk.  |
| <b>help</b>          | Views a description of the interactive help system.  |
| <b>halt</b>          | Shuts down the node without powering it off.   |
| <b>hostname</b>      | Specifies the node's host name. The host name appears in the system prompt and in SNMP traps.            |
| <b>image</b>         | Manages node software images.  |
| <b>interface</b>     | Configures network interfaces.   |
| <b>ip</b>            | Configures IP settings for the eth0 Mgmt port.   |
| <b>ipv6</b>          | Configures IPV6 settings for the eth0 Mgmt port.   |
| <b>job</b>           | Configures scheduled jobs  |
| <b>ldap</b>          | Configures LDAP server settings for authentication   |
| <b>logging</b>       | Configures event logging.  |
| <b>no</b>            | Deletes or clears certain configuration options.   |
| <b>ntp</b>           | Enables and disables the use of NTP, as well as adds NTP servers   |
| <b>ntpdate</b>       | Sets node clock once from a remote server using NTP.   |
| <b>ping</b>          | Sends ICMP echo requests to a specified host.  |
| <b>pld</b>           | Performs an upgrade of programmable logic devices (PLDs) such as field programmable gate arrays (FPGAs). |
| <b>ping6</b>         | Sends IPMPv6 echo requests to a specified IPv6 host.   |
| <b>port</b>          | Configures port type, parameters, and filters.   |
| <b>radius-server</b> | Configures RADIUS server settings for authentication.  |
| <b>reload</b>        | Reboots or shuts down the node   |
| <b>reset</b>         | Resets specified portions of the node configuration to their factory states.                             |
| <b>show</b>          | Display configuration and status information for a wide variety of settings and entities.                |
| <b>sleep</b>         | Sleeps for a specified number of seconds.  |

| Command              | Description  |
|----------------------|--|
| <b>snmp-server</b>   | Configures SNMP settings, including the local SNMP server, notification events, and notification destinations. |
| <b>ssh</b>           | Enables and disables SSH access, as well as manages settings   |
| <b>system</b>        | Changes system settings  |
| <b>system-health</b> | Configures system health behaviors.  |
| <b>tacacs-server</b> | Configures TACACS+ server settings for authentication  |
| <b>tcpdump</b>       | Display packets from any ethx port in the node on a network.   |
| <b>terminal</b>      | Set terminal parameters, including width and length.   |
| <b>traceroute</b>    | Trace the route packets take to a destination.   |
| <b>username</b>      | Manage user accounts.  |
| <b>web</b>           | Configure the Web server used for GigaVUE-FM GUI support on the node.  |
| <b>write</b>         | Save the running configuration to persistent storage.  |

Refer to GigaVUE-OS CLI Reference Guide for further details on how to use the above commands .

## Configuring Network/ TAP Ports on the G-TAP A Series 2

The G-TAP A Series 2 ( only the the G-TAP-ATX version) is shipped with auto-negotiation enabled on the Network/ TAP ports and can be used out of the box by simply supplying power and connecting network cables. You can explicitly set the admin/ auto-negotiation /duplex /speed/ lfp /relay parameters for each group. Each group consists of two network and two monitor ports.

Example,

Port \* params admin enable.

**NOTE:** For G-TAP-ASF version tap devices the below commands are not applicable.

Port\* auto-negotiation enable

Port\* speed 100

Port\* duplex full

Port \* lfp enable

Port \* relay active.

Where Port\* is G1 , G2 , G3 or G4 .

**NOTE:** For G-TAP A-SF21 the ports are X1,X2,X3 and X4.

## SNMP Trap Events

The G-TAP A Series 2 supports the SNMP Trap events listed in the table below. To configure SNMP traps ,please refer SNMP Server section in CLI configuration guide .

Table 7: SNMP TRAP Events and Description

| Trap                                  | Description  |
|---------------------------------------|--|
| CPU Hibernation Status                | Generates notification when CPU enters hibernation from active state or vice-versa.CPU Hibernation Status  |
| System Reset                          | Generated when system resets by warm or cold reset .   |
| Configuration Save                    | Generated to save configuration file.  |
| Module Change                         | Generated when Module is changed.  |
| Link Speed Status                     | Generated when The Port link status is changed   |
| System Shut Down Unexpectedly         | Generated when the system shuts down unexpectedly  |
| User Authentication Fail              | Generated when user log in fails   |
| Power Supply Status Change            | Generated when the Power supply status of adapters change.   |
| Fan Status Change                     | Generated when the Fan status has changed from normal operations.  |
| Watchdog Reset                        | Generates when watchdog timer triggers system reset function   |
| Firmware Change                       | Generates when a Firmware is being modified.   |
| IP gateway status update notification | Generate when the status of IP gateway address has been updated.   |
| Battery Presence                      | Generates to indicate if the Battery is present or not.  |
| Battery Charge Level Threshold        | Generates to indicate the battery charge level   |
| Battery Exercise Test Complete        | Generates when the Battery exercise test has been competed   |
| Battery Temperature                   | Generate when the battery temperature crosses the threshold level.   |
| Exhaust temperature notification      | Generated when the Exhaust temperature crosses a threshold level   |
| CPU temperature notification          | Generated when the CPU temperature crosses a threshold level   |
| Secondary flash boot notification     | Generates notification when secondary flash boot is performed.   |
| Throttle report notification          | Generates a notification when throttle report is triggered.  |
| Optics Temperature Notification       | Optics temperature notification is the Level Triggered Event. When the port optic's temperature reaches a certain level, this alarm is triggered |



| Trap                             | Description   |
|----------------------------------|---|
| Incompatible Notification        | Generates a notification of an incompatible SFP in the port group                       |
| Power Source Change Notification | Notification when the power supply is changed from main power to battery or vice-versa. |
| Port Power Change Notification   | Generates notification when SFP port is enabled/disabled for battery optimization.      |

## Tapping a Link with G-TAP A Series 2

To tap a link with G-TAP A-TX21 follow the below steps :

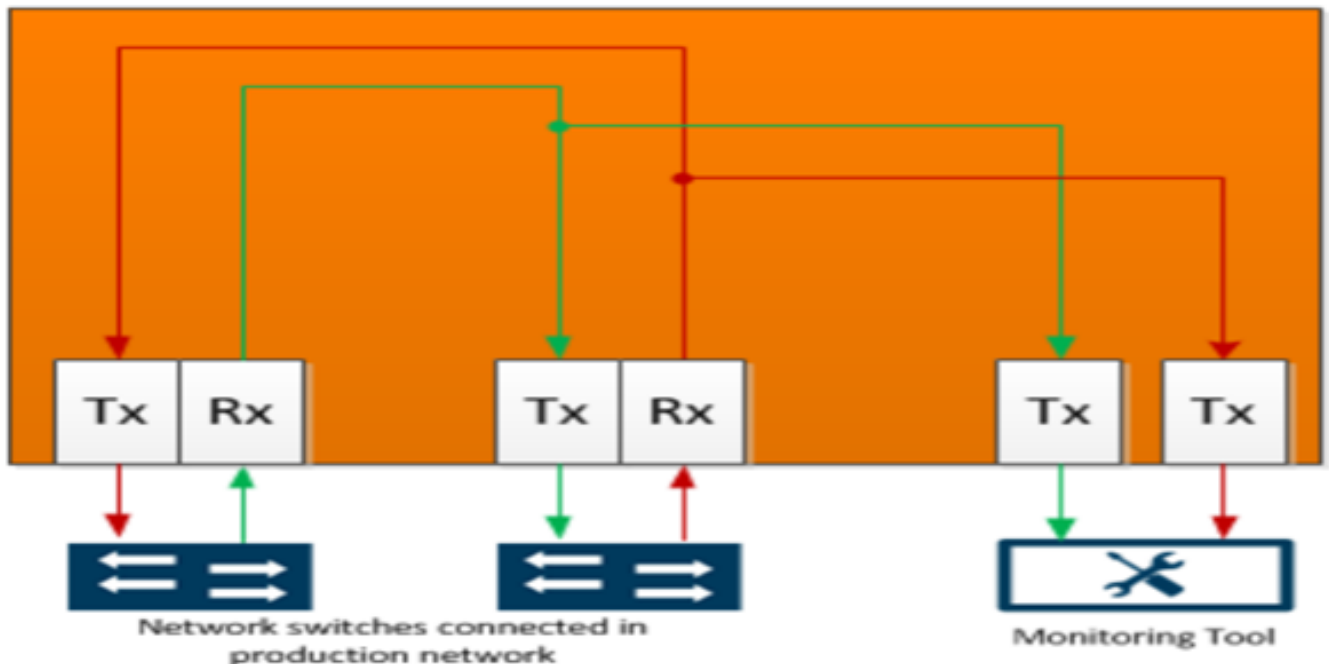
1. Disconnect any existing link between two network devices , example; a connection between an access switch and a distribution network.
2. Reconnect the link so that data flows through the tap.
3. Connect the test traffic to Network A / B ports, close with tap relay in passive mode, and verify that traffic flows through the G-TAP .
4. Once the traffic flow is confirmed in passive mode, switch it back to active mode and connect the production link.

**NOTE:** The above step is not applicable for G-TAP A-SF21.

5. Connect the Ethernet cable from one network device to the Network A port.

**NOTE:** The above step is not applicable for G-TAP A-SF21.

6. Connect another cable from the second network device to the Network B port.
7. Connect the Monitor/Tool ports either to a network analysis tool or to a G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 data access switch for intelligent distribution to multiple tools.



**Figure 5** G-TAP A-TX21 Data Flow per Group

Once the tap is operating successfully in active mode, traffic is sent to the Monitor/Tool ports, as shown in [G-TAP A-TX21 Data Flow per Group](#) . If the primary sources of power is lost and backup battery drops to 5 percent of charge capacity , then G-TAP A-TX21 will automatically close its relays and switch back to passive mode .

## Registering G-TAP A Series 2 with GigaVUE-FM

G-TAP A Series 2 can be registered and is manageable by GigaVUE-FM. Once registered , GigaVUE-FM can upgrade the software for G-TAP's , monitor the overall health of the device and notify all critical events as a TRAP such as ; Port UP/ DOWN, Power Outage, crossing threshold Battery level, Relay State etc.

### Connecting a G-TAP A Series 2 to GigaVUE-FM

To register a G-TAP A Series 2 with GigaVUE-FM , you can manually add a physical node . The procedures are explained below:

#### Add a Physical Node

The process to add a physical node is as follows :

1. Click Physical on the top navigation bar.
2. On the Physical Nodes page, click **Add**. The Add Physical Node page displays.
3. Select **Add Manually**.
4. Enter the necessary details such as Node Name, Device Family, Custom Log in Credentials and SNMP Version .
5. Click **Submit** to add the node or nodes to the list of physical nodes GigaVUE-FM is managing.

**NOTE:** G-TAP A Series 2 is manageable by GigaVUE-FM without a dedicated node license.

## Managing the G-TAP A Series 2 Node

The following left menu options will be available for the registered G-TAP A-TX21 node . Refer to the table below for more details:

Table 8: Managing the G-TAP A Series 2 Node

| Left Navigation Menu | Description   |
|----------------------|---|
| Overview             | <p>The overview page displays the board temperature, resources ,battery status, power status , Fan module status, Ports status.</p> <p>Schedule Battery Test – In The Battery widget, you can schedule to run a Battery test , to check the status of the battery power . In Order to view the progress/status of the battery test, user has to enable the trap Battery BET Complete.</p> <p>User can configure the trap in two methods which are:</p> <ul style="list-style-type: none"> <li>o G-TAP Node &gt; Settings &gt; Global Settings &gt; SNMP Traps &gt; Trap Settings</li> <li>o Administration &gt; System &gt; SNMP Traps &gt; Edit .</li> </ul> <p>Battery Optimization- In the battery widget , you can optimize the battery drain when power supply is down for G-TAP A-SF21. To configure battery optimization, follow the path : G-TAP Node &gt; Settings &gt; Global Settings&gt;Power Settings.</p> |
| Ports                | This would list all the ports of the node. Each tap port is a group of two network ports( Na, Nb ) and two tool ports ( Ta, Tb) .   |
| Chassis              | This page would display the chassis image of the G-TAP A Series 2.  |
| Health               | The G-TAP node health status of the individual components such as Ports, Card, etc. Refer to the health status table given below  |
| Settings             | <p>This includes all settings such as Date and Time, Global Settings , Interface and Reboot and Upgrade.</p> <p>For information on configuring email notifications, refer to the “Notifications” section in the GigaVUE-OS and GigaVUE-FM Administration Guide.</p>   |

The below table provides a detailed description of the different health status of G-TAP A Series 2:

Table 9: Port Group Compatibility Status

| Health Status | Port Compatibility |
|---------------|--------------------|
| Green         | True               |
| Red           | False              |

Table 10: Port Health Status

| Health Status                          | In Use  | Operational Status | Signal Detect (G-TAP A-SF21) |
|--|---------|--------------------|------------------------------|
| Green                                  | Yes     | Up                 | Yes                          |
| Green ( when admin status is disabled) | No      | N / A              | N/A                          |
| Red                                    | Enabled | Down               | No                           |

Table 11: Chassis Health Status

| Health Status | Battery Health                    | Chassis Temperature Health | Ports Health                       | Resource Health (CPU, Memory, Disk) |
|---------------|-----------------------------------|----------------------------|------------------------------------|-------------------------------------|
| Green         | 100%                              | Normal                     | Green ( all ports are green)       | Normal                              |
| Yellow        | 75% ( Warning)                    | Normal                     | Green                              | Normal                              |
| Yellow        | 100%                              | High                       | Green                              | Normal                              |
| Yellow        | 100%                              | Normal                     | Green                              | High Usage                          |
| Yellow        | 100%                              | Normal                     | Red ( 50% of ports are red)        | Normal                              |
| Red           | Less than 50 % (Critical / Alarm) | Normal                     | Green                              | Normal                              |
| Red           | 100 %                             | Extreme High               | Green                              | Normal                              |
| Red           | 100 %                             | Normal                     | Green                              | Extreme High Usage                  |
| Red           | 100 %                             | Normal                     | Red                                | -                                   |
| Red           | 100 %                             | Normal                     | Red (More than 50% ports were Red) | -                                   |

Table 12: G-TAP A Series 2 Node Health

| Health Status | GigaVUE-FM Reachable | Chassis Health |
|---------------|----------------------|----------------|
| Green         | Yes                  | Green          |
| Yellow        | Yes                  | Yellow         |
| Red           | No                   | N / A          |
| Red           | Yes                  | Red            |

## G-TAP A-SF21 Transceiver Rules and Notes

The G-TAP A-SF21 supports SFP and SFP+ transceivers, for connectivity to 1G/10G fiber and copper Ethernet links.

Keep in mind the following notes and rules for transceivers.

1. Tap speed is determined by the external devices connected to the network ports. The external devices must be running at the same speed for data to be passed to the Monitor/Tool ports.
2. The Network ports must use the same transceiver type
3. The Tool port transceivers must support the same speed as the Network port transceivers. However, though Tool port transceivers do not need to be from the same medium.

**NOTE:** It is recommended to use the same optics, either as one another or as those in the Network ports.

4. After removing an optical transceiver, the best practice is to wait seventeen (17) or more seconds before re-inserting the same or different optical transceiver. This includes the intervals between removal/insertion/re-insertion
5. When using 1G SFP Optical Transceivers in the Monitor/Tool ports, the connected tools must have auto-negotiation disabled for the link to establish successfully.
6. Copper SFP-501 (1000BASE-T) and Copper SFP-531 (10000BASE-T) transceivers can only be used at their native speeds and there are no configurable auto-negotiation, speed, or duplex settings for these transceivers that would allow 10/100 Mbps use.

For details about the supported transceiver, cable type refer to “[GigaVUE-OS Compatibility and Interoperability Matrix](#)”.

# System Compliance

This section provides system compliance information for G-TAP A Series 2. The different regulations are as follows:

## Safety

G-TAP A Series 2 are compliant with the following safety regulations:

- CAN/CSA-C22.2 No. 60950-1 (2007) ,62368-1 (2nd Ed)Information Technology Equipment
- UL 60950-1 (2nd Ed) ,62368-1 (2nd Ed)) Information Technology Equipment
- EN 60950-1 (2006+ A1:2010) , 62328-1(2014)Information Technology Equipment
- IEC 60950-1 (2005 +A1:2009), 62368-1 (2nd Ed)Information Technology Equipment

## Electromagnetic Regulations

G-TAP A Series 2are complaint with the following electromagnetic regulations:

- EN 300 386 V1.6.1 : 2012 Class A
- FCC Title 47 CFR , Part 15 Subpart B : 2012(for frequencies above 1GHz) Class A
- EN 55022 : 2010+AC : 2011 Class A European Radiated Emissions
- VCCI V-3 : 2013.04 (Japan) Class A
- BSMI CNS 13438 and NCC C6357 Taiwan Radiated Emissions
- AS/NZS CISPR 22 : 2009+A1 : 2010 Class A (Australia/New Zealand)
- ICES-003: 2012 Issue 5 (Canada)
- CNS 13438 : 2006
- ETSI EN 300 : 386 V1.6.1 (2012-09)
- EN55024: 1998 + A1:2001 + A2:200
- CISPR 24: 1997+ A1:2001 + A2:2002
- EN 61000-3-2:2006 + a1:2009, CLASS A
- EN 61000-3-3:2008
- EN 61000-4-2,4-3, 4-4,4-5,4-6,4-8,4-11
- EN 61000-3-3:2008
- C-TICK ( AUSTRALIA) Certification
- VCCI ( JAPAN) Certification

## Power Supply Markings

The mandatory power supply markings for G-TAP A Series 2 are as follow:

- UL, CSA: UL/ CSA 60950-1 (2007), 62368-1 (2nd Ed)
- FCC part 15 subpart B Class B (2006)
- EN60950 -1 2nd Edition (2006), 62368-1 (2nd Ed)
- CB/ IEC 60950-1 (2005 +A1: 2009), 62368-1 (2nd Ed)

## Installation Instructions G-TAP A Series 2

The following sections, details on installation compliance instructions for G-TAP A Series 2:

### Intrabuilding or Intra-connection for G-TAP A Series 2

**WARNING:** The intra-building ports:

G-TAP A-TX21:

- RJ45: Management port, Console port
- Four Groups with sixteen SFP/SFP+ ports.

G-TAP A-SF21:

- RJ45: Management port, Console port
- Four SFP /SFP+ (1Gb/10Gb) TAP ports.

G-TAP A Series 2 equipment or sub assembly are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intra-building port(s) of the equipment or sub assembly **MUST NOT** be connected by metal to interfaces that connect to the OSP or its wiring. These interfaces are designed for use as intra-building interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE, Issue 6) and require isolation from the exposed OSP cabling. The addition of Primary Protectors is not sufficient protection in order to connect these interfaces by metal to OSP wiring.

### Intrabuilding Ports (RJ45)

**WARNING:** The intrabuilding ports (RJ45) shall be connected to shielded and grounded cables at both ends.

### Class A2 Voltage Accessibility

The G-TAP A Series 2 shall be located in a restricted access location where only crafts personnel are allowed access.

### Class B Voltage Accessibility

The G-TAP A Series 2 shall be located in a restricted access location where only crafts personnel are allowed access.

### Equipment Grounding Systems

The G-TAP A Series 2 shall be installed and connected to the (CBN).

## Communication Equipment Grounding

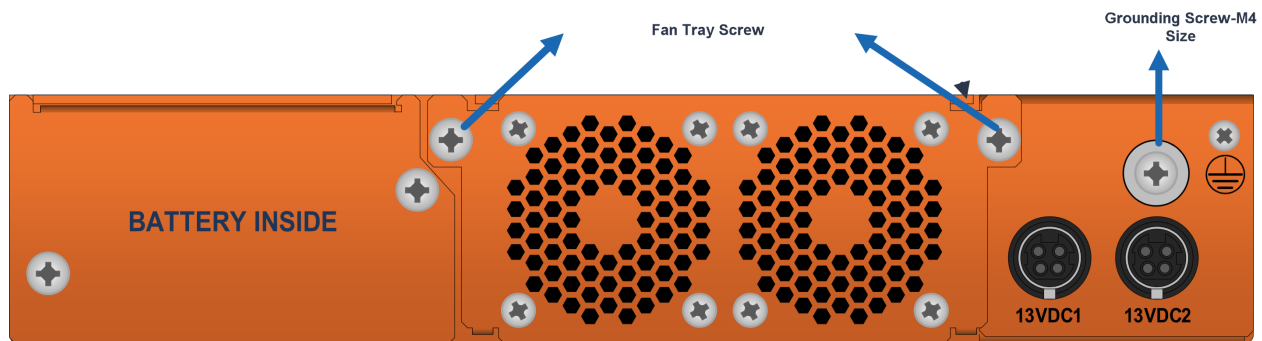
The G-TAP A Series 2 is suitable for connection to the (Central Office and CPE).

## Bonding of Battery Return (BR) Input Terminals

The battery returns of G-TAP A Series 2 shall be connected as (DC-I).

## Connections

- a. The G-TAP A Series 2 shall be grounded via a copper ground conductor 6 AWG for CPE installation. The grounding screw size is an M4 as shown below. Ensure that the lug size used matches the M4 screw hole .



- b. The bare grounding connection points of G-TAP A Series 2 should be cleaned and coated with an antioxidant solution prior to making connections .
- c. Surfaces on which G-TAP A Series 2 is placed, and that are not plated should be brought to a bright finish and treated with an antioxidant solution prior to making connections.
- d. Non-conductive surfaces on which G-TAP A Series 2 is placed, shall be removed from all threads and connection points to ensure electrical continuity.
- e. Multiple connectors shall not be secured by the same bolt assemblies.
- f. Non-plated connection surfaces that are to be intentionally joined to form a bonding or grounding path shall be brought to a bright finish and then coated with an antioxidant before they are used for electrical connections.
- g. Listing fastening hardware shall be compatible with materials being joined and shall preclude loosening deterioration, and electrochemical corrosion of the hardware and joined materials.
- h. Non-conductive coatings (such as paint, lacquer, and enamel) on the equipment to be bonded or grounded shall be removed from threads and other contact surfaces to assure electrical continuity.



- i. G-TAP A Series 2 utilizes a spade width 0.32 in / .81 cm with a standard wire 14-16 (AWG) that requires 5 in-lbs of torque to secure it to the frame and EUT. The listed two-hole compression-type connectors only should be used in connecting to flat surfaces (such as bus bars, frames, racks, or cabinets). Torquing and bolts assembly requirements for securing the connector shall be as specified by the connector supplier.
- j. Anti-rotation devices, such as lock washers, will be used on grounding lugs to minimize the possibility of loosening from rotation during installation and maintenance activities.

## Commercial Power Ports

The manufacturer recommends that Surge Protection Device (SPD) is intended to be used with AC-power equipment. The SPD, if used, is installed at the AC power entrance (Refer to definition in the NEC).

## Maintenance

**CAUTION:** Remove all power sources before servicing. (TO COMPLETELY REMOVE POWER FROM THE UNIT. REMOVE THE BATTERY , BATTERY TRAY AND REMOVE BOTH POWER CABLES).

## Input AC/DC Voltage

The G-TAP A Series 2 is capable of operating input 100-240V AC .

# Additional Sources of Information

This appendix provides additional sources of information. Refer to the following sections for details:

- [Documentation](#)
- [Documentation Feedback](#)
- [Contact Technical Support](#)
- [Contact Sales](#)
- [The Gigamon Community](#)

## Documentation

This table lists all the guides provided for G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 software and hardware. The first row provides an All-Documents Zip file that contains all the guides in the set for the release.

**NOTE:** In the online documentation, view [What's New](#) to access quick links to topics for each of the new features in this Release; view [Documentation Downloads](#) to download all PDFs.

Table 1: Documentation Set for Gigamon Products

| G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 5.16 Hardware and Software Guides   |
|---|
| <p><b>DID YOU KNOW?</b> If you keep all PDFs for a release in common folder, you can easily search across the doc set by opening one of the files in Acrobat and choosing <b>Edit &gt; Advanced Search</b> from the menu. This opens an interface that allows you to select a directory and search across all PDFs in a folder.</p> |
| <p><b>Hardware</b></p> <p>how to unpack, assemble, rack-mount, connect, and initially configure ports the respective G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 devices; reference information and specifications for the respective G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 devices</p>   |
| <b>GigaVUE-HC1 Hardware Installation Guide</b>  |
| <b>GigaVUE-HC2 Hardware Installation Guide</b>  |
| <b>GigaVUE-HC3 Hardware Installation Guide</b>  |
| <b>GigaVUE-TA25 Hardware Installation Guide</b>   |
| <b>GigaVUE-TA200 Hardware Installation Guide</b>  |
| <b>GigaVUE-TA400 Hardware Installation Guide</b>  |
| <b>GigaVUE-TA10 Hardware Installation Guide</b>   |

## G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 5.16 Hardware and Software Guides

**GigaVUE-TA40 Hardware Installation Guide**

**GigaVUE-TA100 Hardware Installation Guide**

**GigaVUE-TA100-CXP Hardware Installation Guide**

**GigaVUE-OS Installation Guide for DELL S4112F-ON**

**G-TAP A Series 2 Installation Guide**

**GigaVUE M Series Hardware Installation Guide**

**GigaVUE-FM Hardware Appliance Guide for GFM-HW1-FM010 and and GFM-HW1-FM001-HW**

### Software Installation and Upgrade Guides

**GigaVUE-FM Installation, Migration, and Upgrade Guide**

**GigaVUE-OS Upgrade Guide**

### Fabric Management and Administration Guides

**GigaVUE Administration Guide**

covers both GigaVUE-OS and GigaVUE-FM

**GigaVUE Fabric Management Guide**

how to install, deploy, and operate GigaVUE-FM; how to configure GigaSMART operations; covers both GigaVUE-FM and GigaVUE-OS features

### Cloud Guides

how to configure the GigaVUE Cloud Suite components and set up traffic monitoring sessions for the cloud platforms

**GigaVUE V Series Quick Start Guide**

**GigaVUE Cloud Suite for AWS–GigaVUE V Series 2 Guide**

**GigaVUE Cloud Suite for Azure–GigaVUE V Series 2 Guide**

**GigaVUE Cloud Suite for OpenStack–GigaVUE V Series 2 Guide**

**GigaVUE Cloud Suite for VMware—GigaVUE V Series Guide**

**GigaVUE Cloud Suite for AnyCloud Guide**

**Gigamon Containerized Broker Guide**

**GigaVUE Cloud Suite for AWS–GigaVUE V Series 1 Guide**

**GigaVUE Cloud Suite for Azure–GigaVUE V Series 1 Guide**

**GigaVUE Cloud Suite for OpenStack–GigaVUE V Series 1 Guide**

**GigaVUE Cloud Suite for Nutanix Guide**

## G-TAP A-TX21,G-TAP A-TX21-C, G-TAP A-SF21 5.16 Hardware and Software Guides

### GigaVUE Cloud Suite for VMware—GigaVUE-VM Guide

#### Reference Guides

##### GigaVUE-OS CLI Reference Guide

library of GigaVUE-OS CLI (Command Line Interface) commands used to configure and operate GigaVUE HC Series and TA Series devices

##### GigaVUE-OS Cabling Quick Reference Guide

guidelines for the different types of cables used to connect Gigamon devices

##### GigaVUE-OS Compatibility and Interoperability Matrix

compatibility information and interoperability requirements for Gigamon devices

##### GigaVUE-FM REST API Reference in GigaVUE-FM User's Guide

samples uses of the GigaVUE-FM Application Program Interfaces (APIs)

#### Release Notes

##### GigaVUE-OS, GigaVUE-FM, GigaVUE-VM, G-TAP A Series, and GigaVUE Cloud Suite Release Notes

new features, resolved issues, and known issues in this release ;  
important notes regarding installing and upgrading to this release

**NOTE:** Release Notes are not included in the online documentation.

**NOTE:** Registered Customers can log in to [My Gigamon](#) to download the Software and Release Notes from the Software & Docs page on to [My Gigamon](#). Refer to [How to Download Software and Release Notes from My Gigamon](#).

#### In-Product Help

##### GigaVUE-FM Online Help

how to install, deploy, and operate GigaVUE-FM.

##### GigaVUE-OS H-VUE Online Help

provides links the online documentation.

## How to Download Software and Release Notes from My Gigamon

Registered Customers can download software and corresponding Release Notes documents from the **Software & Release Notes** page on to [My Gigamon](#). Use the My Gigamon Software & Docs page to download:

- Gigamon Software installation and upgrade images,
- Release Notes for Gigamon Software, or
- Older versions of PDFs (pre-v5.7).

**To download release-specific software, release notes, or older PDFs:**

1. Log in to [My Gigamon](#)
2. Click on the **Software & Release Notes** link.
3. Use the **Product** and **Release** filters to find documentation for the current release. For example, select Product: "GigaVUE-FM" and Release: "5.6," enter "pdf" in the search box, and then click **GO** to view all PDF documentation for GigaVUE-FM 5.6.xx.

**NOTE:** My Gigamon is available to registered customers only. Newer documentation PDFs, with the exception of release notes, are all available through the publicly available online documentation.

## Documentation Feedback

We are continuously improving our documentation to make it more accessible while maintaining accuracy and ease of use. Your feedback helps us to improve. To provide feedback and report issues in our documentation, send an email to:

[documentationfeedback@gigamon.com](mailto:documentationfeedback@gigamon.com)

Please provide the following information in the email to help us identify and resolve the issue. Copy and paste this form into your email, complete it as able, and send. We will respond as soon as possible.

| Documentation Feedback Form |                        |   |
|-----------------------------|------------------------|---|
| <b>About You</b>            | <b>Your Name</b>       |   |
|                             | <b>Your Role</b>       |   |
|                             | <b>Your Company</b>    |   |
|                             |                        |   |
| <b>For Online Topics</b>    | <b>Online doc link</b> | <i>(URL for where the issue is)</i>   |
|                             | <b>Topic Heading</b>   | <i>(if it's a long topic, please provide the heading of the section where the issue is)</i> |
|                             |                        |   |

|                            |  |  |
|----------------------------|--|--|
| <b>For PDF Topics</b>      | <b>Document Title</b>  | <i>(shown on the cover page or in page header )</i>  |
|                            | <b>Product Version</b>   | <i>(shown on the cover page)</i>   |
|                            | <b>Document Version</b>  | <i>(shown on the cover page)</i>   |
|                            | <b>Chapter Heading</b>   | <i>(shown in footer)</i>   |
|                            | <b>PDF page #</b>  | <i>(shown in footer)</i>   |
| <b>How can we improve?</b> | <b>Describe the issue</b>  | <i>Describe the error or issue in the documentation.<br/>(If it helps, attach an image to show the issue.)</i> |
|                            | <b>How can we improve the content?</b><br><b>Be as specific as possible.</b> |  |
|                            | <b>Any other comments?</b>   |  |

## Contact Technical Support

For information about Technical Support: Go to **Settings**  > **Support** > **Contact Support** in GigaVUE-FM.

You can also refer to <https://www.gigamon.com/support-and-services/contact-support> for Technical Support hours and contact information.

Email Technical Support at [support@gigamon.com](mailto:support@gigamon.com).

## Contact Sales

Use the following information to Gigamon channel partner or Gigamon sales representatives.

**Telephone:** +1.408.831.4025

**Sales:** [inside.sales@gigamon.com](mailto:inside.sales@gigamon.com)

**Partners:** [www.gigamon.com/partners.html](http://www.gigamon.com/partners.html)

## Premium Support

Email Gigamon at [inside.sales@gigamon.com](mailto:inside.sales@gigamon.com) for information on purchasing 24x7 Premium Support. Premium Support entitles you to round-the-clock phone support with a dedicated Support Engineer every day of the week.

## The Gigamon Community

The [Gigamon Community](#) is a technical site where Gigamon users, partners, security and network professionals and Gigamon employees come together to share knowledge and expertise, ask questions, build their network and learn about best practices for Gigamon products.

Visit the Gigamon Community site to:

- Find knowledge base articles and documentation
- Ask and answer questions and learn best practices from other members.
- Join special-interest groups to have focused collaboration around a technology, use-case, vertical market or beta release
- Take online learning lessons and tutorials to broaden your knowledge of Gigamon products.
- Submit and vote on feature enhancements and share product feedback. (Customers only)
- Open support tickets (Customers only)
- Download the latest product updates and documentation (Customers only)

The Gigamon Community is a great way to get answers fast, learn from experts and collaborate directly with other members around your areas of interest.

**Register today at** [community.gigamon.com](http://community.gigamon.com)

**Questions?** Contact our Community team at [community@gigamon.com](mailto:community@gigamon.com).

# Glossary

## D

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### decrypt list

need to decrypt (formerly blacklist)

### decryptlist

need to decrypt - CLI Command (formerly blacklist)

### drop list

selective forwarding - drop (formerly blacklist)

## F

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### forward list

selective forwarding - forward (formerly whitelist)

## L

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### leader

leader in clustering node relationship (formerly master)

## M

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### member node

follower in clustering node relationship (formerly slave or non-master)

## N

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### no-decrypt list

no need to decrypt (formerly whitelist)



**nodecryptlist**

no need to decrypt- CLI Command (formerly whitelist)

**P**

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**primary source**

root timing; transmits sync info to clocks in its network segment (formerly grandmaster)

**R**

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**receiver**

follower in a bidirectional clock relationship (formerly slave)

**S**

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**source**

leader in a bidirectional clock relationship (formerly master)