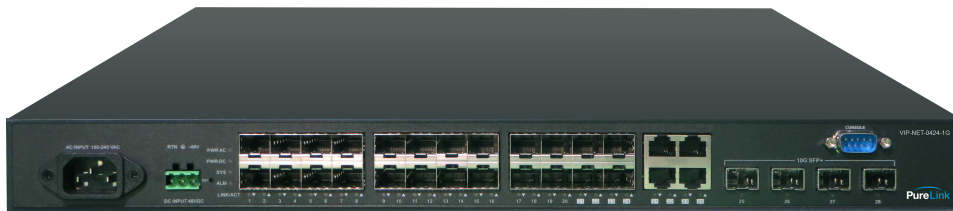


VIP-NET-0424-1G

# 1G Media Hub – PoE+ L2 Network Switch

## QUICK START GUIDE



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## INTRODUCTION

### Package Contents

- ✓ (1) VIP-NET 0424-1G Media Hub
- ✓ (1) AC power cord
- ✓ (1) RS232 console port cable

### Optional Accessories

- SFP 1G            Multi mode modules
- SFP 1G            Single mode modules
- SFP+ 10G        Multimode modules
- SFP+ 10G        Single Mode modules

### Product Overview

The **VIP-NET-0424-1G Media Hub** is a PoE+ L2 managed network switch purpose built for AV over IP applications, and is ready for use out-of-the-box when installed in closed system applications. The VIP-NET-0424-1G provides (20) 1G SFP ports, (4) SFP/RJ45 combo ports, and (4) SFP+ ports, all with optional link aggregation. The VIP-NET-0424-1G can be powered from a 100-240V AC or 48V DC power supply. Together with rear-facing connections, the VIP-NET-0424-1G makes rack installations cleaner and easier to manage.

## BEFORE YOU START

### Default IP address

VIP-NET-0424-1G encoders are set factory default to a unique IP address of 169.254.1.10. The subnet mask is 255.255.255.0

### Built-in web page login

Username = admin

Password = (empty)

### Communication Settings

Devices that need to communicate with each other on a network must be in the same IP subnet and not separated by a VLAN configuration.

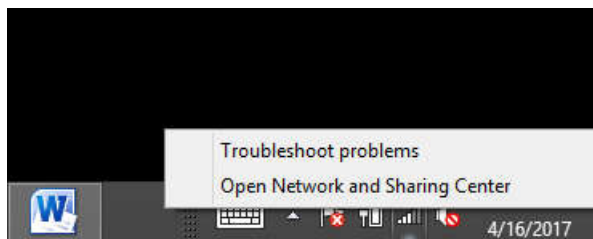
You will need to set your PC to be on the same subnet. While the interface and steps on achieving this will be different for each OS and versions of OS, they all require that you set the ipv4 settings of your LAN adapter. You may have more than one LAN adapter, so be certain you are working with the correct one.

## Windows 8.1 and Windows 10 Computer LAN Port Setup

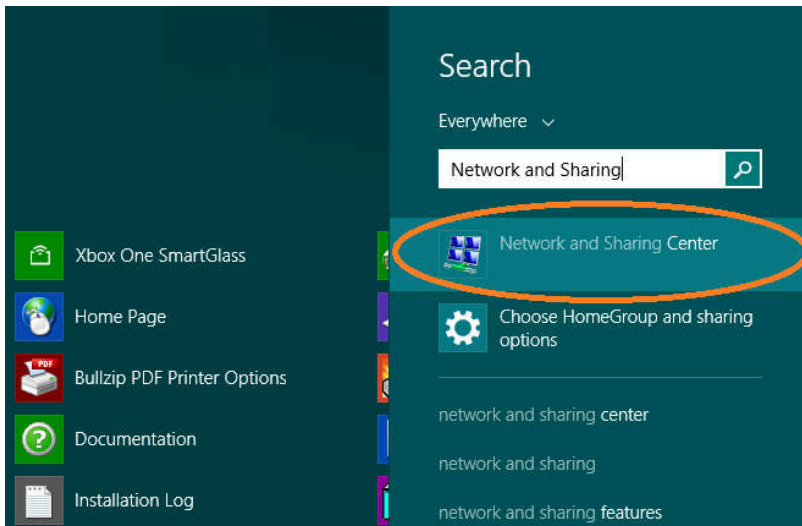
### Opening Network Page

**Option 1:** Right Click on the taskbar icon that looks like a signal strength indicator. Then click on:

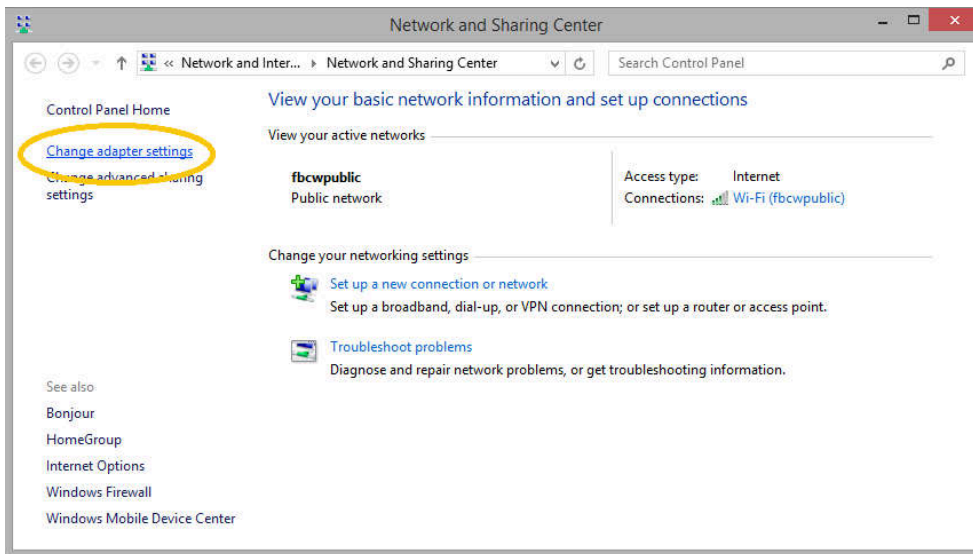
#### Open Network and Sharing Center



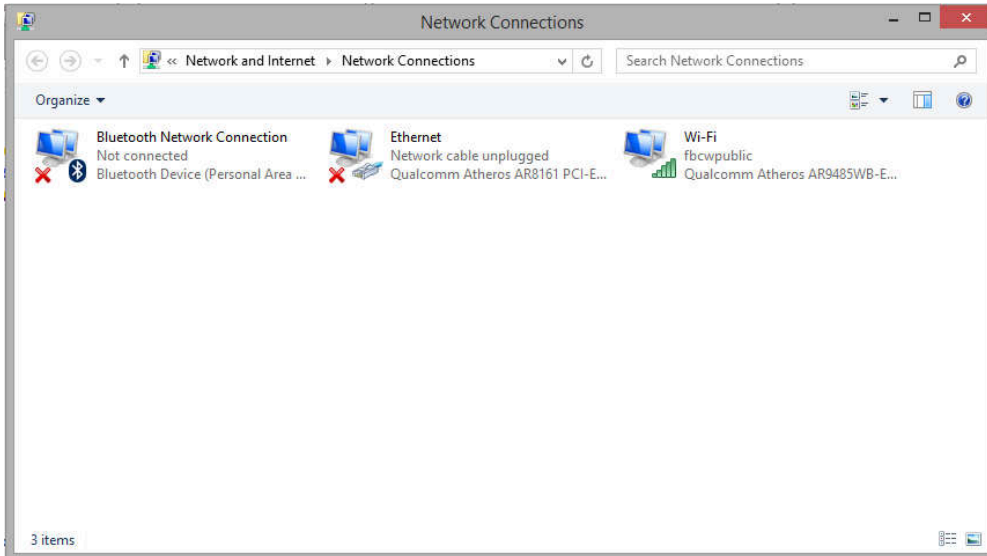
**Option 2:** Use the search bar and type “Network and Sharing Center”. When the search function provides choices below, select **Network and Sharing Center**.



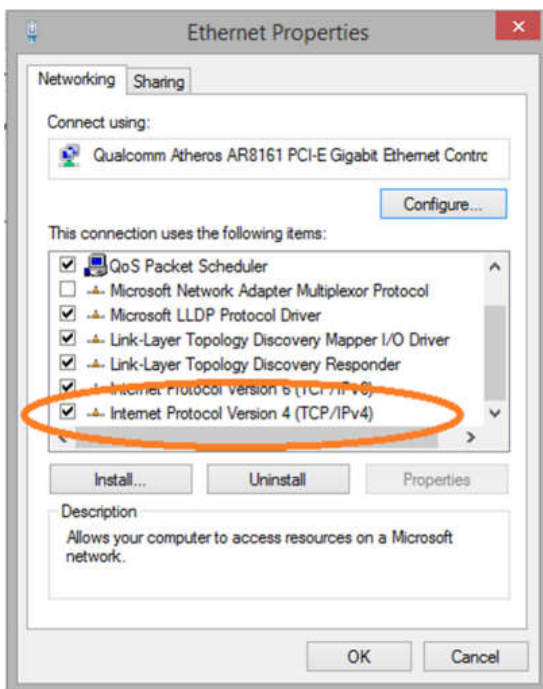
The next window will be as shown below. Select **Change Adapter Settings**.



When you are in the **Change Adapter Settings**, select the LAN adapter that you will use to communicate with the VIP-NET-0424-1G system.



For this example, we will select the middle listing, Qualcomm Atheros LAN Adapter. Double-click on the listing. The **Properties** window will open as shown below.

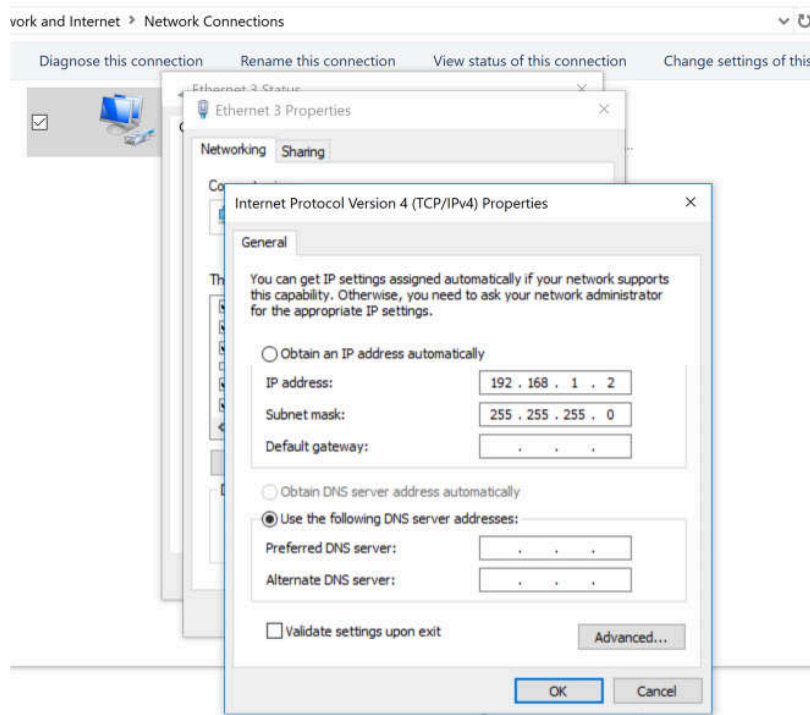


Select "Internet Protocol Version 4 (TCP/IPv4)" by double-clicking the text.

**Note:** Do not deselect the checkbox or change the selections of any other properties in the menu.

When the window changes to **Properties** for the Internet Protocol Version 4, enter the same IP subnet as the VIP-NET-0424-1G system. The default address of the VIP-NET-0424-1G is 169.254.1.10.

Please see example below of one possible setting to connect to the device. Be careful not to use the same IP address as another device on the network.

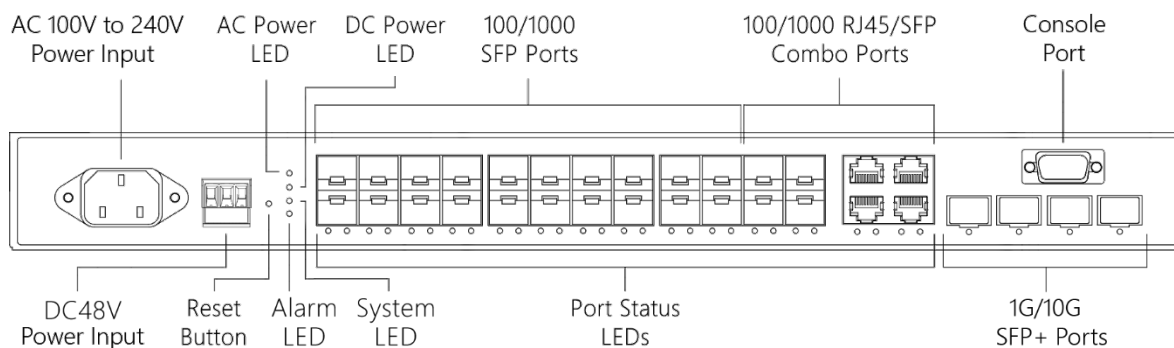


[View your network properties](#)

## Front/Rear Panel



**Figure 1: VIP-NET-0424-1G Front Panel**



**Figure 2: VIP-NET-0424-1G Rear Panel**

### LED Descriptions

The LEDs on the rear panel provide users with switch status checking and monitoring. There are two types of LEDs as follows:

- **AC/DC Power LED**  
Indicates if the switch is powered up correctly or not.
- **System LED**  
Indicates if the system is ready or not.
- **Alarm LED**  
Indicates if the system is normal or not.
- **Port Status LEDs**  
Indicates the current status of each port. Users can check these LEDs to understand the port status.



The following tables detail the functions and descriptions of various LED indicators.

#### Power LED

LED	Color	State	Description
AC Power	Green	On	The switch is powered ON correctly.
		Off	The switch is not receiving power from power1.
DC Power	Green	On	The switch is powered ON correctly.
		Off	The switch is not receiving power from power2.

#### System LED

LED	Color	State	Description
System	Green	On	The switch is ready and running.
		Off	The switch is not ready or failed.
		Blinking	The switch is booting.

#### Alarm LED

LED	Color	State	Description
Alarm	Red	On	An abnormal state, such as temperature, voltage or
		Off	The system is normal.

#### Port Status LEDs

LED	Color	State	Description
RJ45 Ports	Green	On	The port is enabled and established a link to connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and established a link to connected device, and the connection speed is 10/100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 10/100Mbps.
	--	Off	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch

SFP Ports	Green	On	The port is enabled and established a link to connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and established a link to connected device, and the connection speed is 100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 100Mbps.
	--	Off	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch user interface.
SFP+ Ports	Blue	On	The port is enabled and established a link to connected device, and the connection speed is 10Gbps.
	Blue	Blinking	The port is transmitting/receiving packets, and the connection speed is 10Gbps.
	Green	On	The port is enabled and established a link to connected device, and the connection speed is 1Gbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1Gbps.
	--	Off	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch

## Reset Button

By pressing and holding the Reset button, users can perform the following tasks.

- **Reset the Switch**  
To reboot and get the switch back to the previous configuration settings saved.
- **Restore the Switch to Factory Defaults**  
To restore the original factory default settings back to the switch.

**NOTE:** According to the table below, users can easily judge which task is being performed while pressing the Reset button by reading the LED behavior. **Once the LED behaviors are correctly displayed, users may simply release the button.**

**Reset Button Descriptions**

Task to be Performed	Press & Hold Duration	SYS LED Behavior	Port Status LED Behavior
Reset the Switch	2 ~ 7 seconds	Blinking, Green	ALL LEDs Light OFF
Restore to Defaults	7 ~ 12 seconds	Blinking, Green	ALL LEDs Stay ON

## INSTALLATION

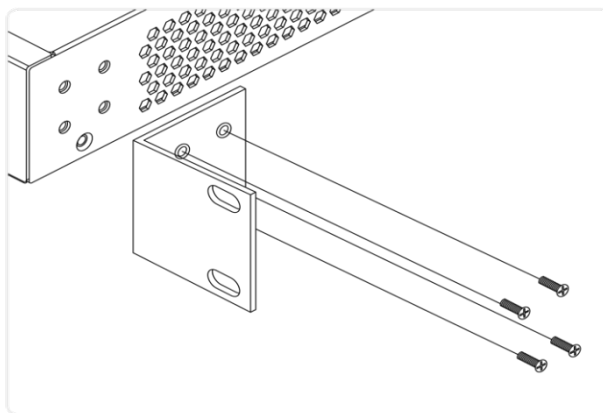
### Package Contents

- (1) VIP-NET-0424-1G Media Hub
- (1) AC power cord
- (1) Terminal Block
- (4) Adhesive rubber feet

**NOTE:** This network switch is for indoor use. To use with outdoor devices such as outdoor (surveillance) cameras or outdoor Wi-Fi APs, installation of a surge protector or surge suppressor is highly recommended in order to protect the switch.

### 19" Rack Installation

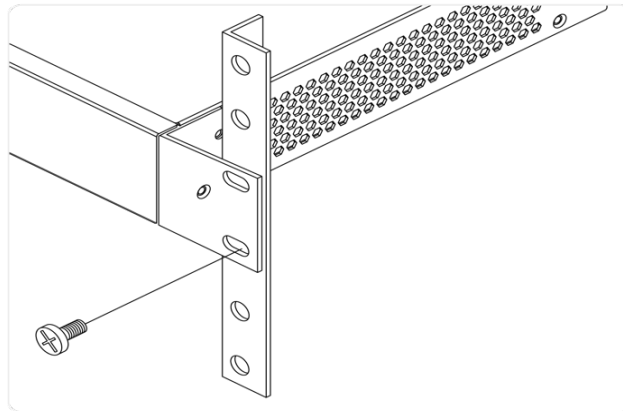
**STEP 1:** Attach the mounting brackets to both sides of the chassis. Insert screws and tighten them with a screwdriver to secure the brackets.



**Figure 3: Attaching brackets to the switch**

**STEP 2:** Place the switch on a rack shelf in the rack. Push it in until the oval holes in the brackets align with the mounting holes in the rack posts.

**STEP 3:** Attach the brackets to the posts. Insert screws and tighten them.

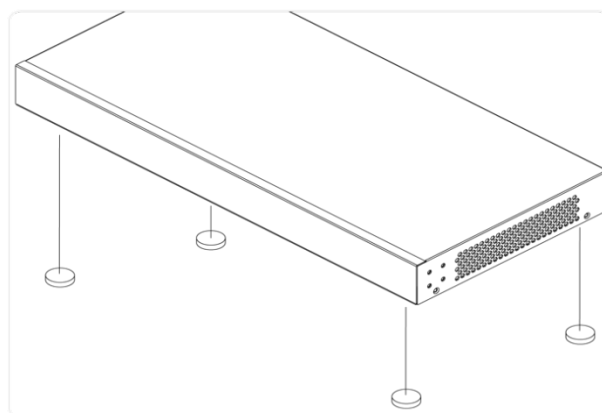


**Figure 4: Attaching brackets to the rack post**

## Desk or Shelf Mounting

**Step 1:** Verify that the workbench is sturdy and reliably grounded.

**Step 2:** Attach the four adhesive rubber feet to the bottom of the switch.



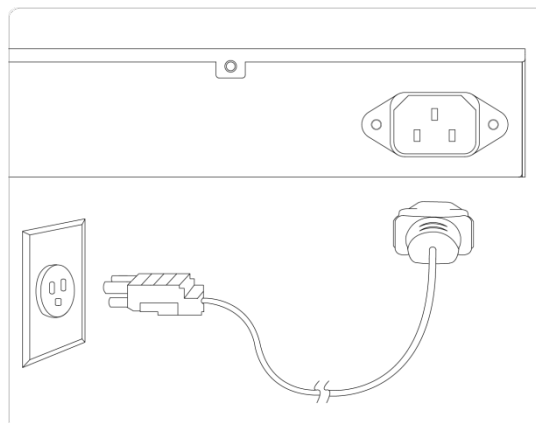
**Figure 5: Attaching the rubber feet**

## Connecting the AC Power Cord

**Step 1:** Connect the AC power cord to the AC power receptacle of switch.

**Step 2:** Connect the other end of the AC power cord to the AC power outlet.

**Step 3:** Check the SYS LED. If it is ON, the power connection is correct.



**Figure 6: Connecting the AC power cord**

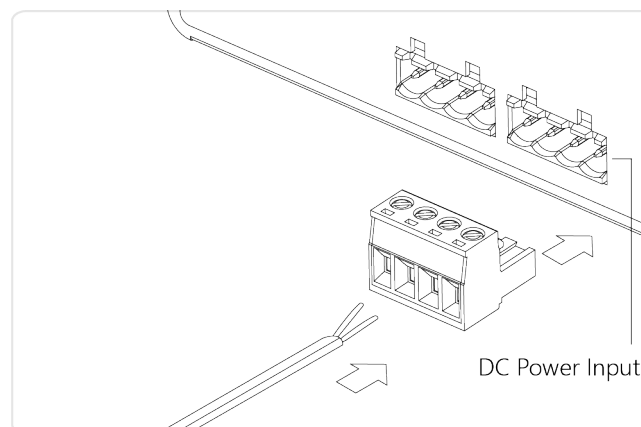
## Connecting the DC Power Cord

**Step 1:** Insert the negative/positive DC wires into the V-/V+ terminals, respectively.

**Step 2:** To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

**Step 3:** Insert the terminal block connector prongs into the terminal block receptor.

**Step 4:** Check the SYS LED. If it is ON, the power connection is correct.



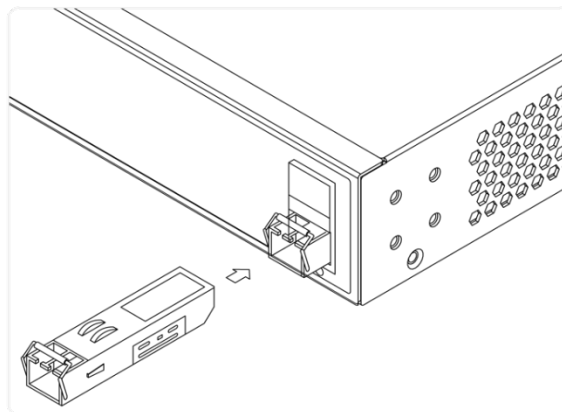
**Figure 7: Connecting the DC power cord**

## Installing SFP/SFP+ Modules

You can install or remove a mini-GBIC SFP/SFP+ module from a SFP/SFP+ port without having to power off the switch.

**Step 1:** Insert the module into the SFP/SFP+ port.

**Step 2:** Press firmly to ensure that the module seats into the connector.



**Figure 8: Installing an SFP/SFP+ module**

**NOTE:** The SFP/SFP+ ports should use UL listed optional transceiver product - rated 3.3Vdc, Class 1 laser.

## INITIAL CONFIGURATION

After powering on the switch for the first time, you can perform the initial switch configuration using a web browser. For managing other switch features, please refer to the Web interface user guide for details.

To begin with the initial configuration stage, you need to reconfigure your PC's IP address and subnet mask so as to make sure the PC can communicate with the switch. After changing PC's IP address (for example, 192.168.1.250), then you can access the Web interface of the switch using the switch's default IP address as shown below.

### NOTE:

The factory default IP address of the switch is **169.254.1.10**

The factory default Subnet Mask of the switch is **255.255.255.0**

## Initial Switch Configuration Procedure

The initial switch configuration procedure is as follows:

1. Turn on the PC that you will use for the initial configuration. Please make sure the PC has an Ethernet RJ45 connector.
2. Reconfigure the PC's IP address and Subnet Mask as below, so that it can communicate with the switch. The method to change the PC's IP address, for example, for a PC running Windows® 7/8.x/10, is as follows:

**Step 1:** Type "*network and sharing*" into the **Search box** in the **Start Menu**

**Step 2:** Select **Network and Sharing Center**

**Step 3:** Click on **Change adapter settings** on the left of PC screen

**NOTE:** Users can also skip step 1 to 3, by pressing **WinKey+R** and type "*ncpa.cpl*" command to get to step 4 directly.

**Step 4:** Right-click on your local adapter and select **Properties**

**Step 5:** In the **Local Area Connection Properties** window highlight **Internet Protocol Version 4 (TCP/IPv4)** then click the **Properties** button.

**NOTE:** Be sure to record all your PC's current IP settings to be able to restore them later.

**Step 6:** Select the radio button **Use the following IP address** and enter in the IP for the PC (e.g. any IP address not in use, and in between 192.168.1.2 and 192.168.1.254), Subnet mask (e.g. 255.255.255.0), and Default gateway that corresponds with your network setup. Then enter your Preferred and Alternate DNS server addresses.

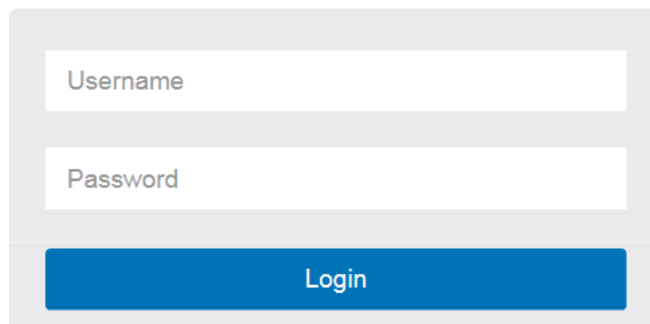
**Step 7:** Click **OK** to change the IP address of the PC.

3. Power on the switch to be initially configured, and wait until it has finished its start-up processes.
4. Connect the PC to any port on the switch using a standard Ethernet cable, and check the port LED on the switch to make sure the link status of the PC's is OK.



5. Run your Web browser on the PC and enter the factory default IP address, so as to access the switch's Web interface.

If your PC is configured correctly, you will see the login page of the switch as shown in Figure 9 below.



The image shows a login page with a light gray background. It features two white input fields: the top one is labeled 'Username' and the bottom one is labeled 'Password'. Below these fields is a blue button with the text 'Login' in white.

**Figure 9: Web Interface login page**

If you do not see the above login page, please perform the following steps:

- Refresh the web page.
- Check to see if there is an IP conflict issue.
- Clean browser cookies and temporary internet files.
- Check your PC settings again and repeat step 2.

Enter the factory default username and password in login page.

Click "Login" to log into the switch.

**NOTE:** The factory default Username of the switch is **admin**. There is no factory default Password of the switch.

## TROUBLESHOOTING

The following table provides information for users to easily troubleshoot problems by taking actions based on the suggested solutions within.

Symptoms	Possible Causes	Suggested Solutions
SYSTEM LED is Off	The switch is not receiving power.	<ol style="list-style-type: none"> <li>1. Check if correct power cord is connected firmly to the switch and to the AC/DC outlet socket.</li> <li>2. Perform power cycling the switch by unplugging and plugging the power cord back into the switch.</li> <li>3. If the LED is still off, try to plug power cord into different AC/DC outlet socket to make sure correct AC/DC source is supplied.</li> </ol>
Port Status LED is Off	The port is not connected or the connection is not working.	<ol style="list-style-type: none"> <li>1. Check if the cable connector plug is firmly inserted and locked into the port at both the switch and the connected device.</li> <li>2. Make sure the connected device is up and running correctly.</li> <li>3. If the symptom still exists, try different cable or different port, in order to identify if it is related to the cable or specific port.</li> <li>4. Check if the port is disabled in the configuration settings via WEB user interface.</li> </ol>

## GLOSSARY

<b>FPS</b>	Frames Per Second – common settings are 24fps, 25fps, 30fps, and 60 fps
<b>FLV</b>	Flash Video streaming utilizing Adobe Flash Player version6 or higher
<b>HLS</b>	HTTP Live Streaming, found with browsers such as Chrome, Firefox, and Safari
<b>GOP</b>	Group of Pictures – terminology used when encoding MPEG video
<b>Bitrate</b>	quantity of bits per second sent from the encoder, in kilobits
<b>Encoded Size</b>	Horizontal and vertical pixel counts of output image resolution
<b>H.264</b>	high quality, low bitrate motion-compensation based compression standard
<b>Bitrate Control</b>	refers to VBR (Variable Bit Rate), or CBR (Constant Bit Rate)
<b>CBR</b>	Constant Bit Rate, used to save file size when content has similar motion throughout
<b>VBR</b>	Variable Bit Rate, used vary bit rate dependent on content changes and provides most favorable results.
<b>TS</b>	Transport Stream, commonly used for audio/video streaming based on MPEG-2
<b>RTSP</b>	Real Time Streaming Protocol for request communications between media servers and clients
<b>Multicast IP</b>	IP address for data (audio/video) broadcasting. An audio/video encoder such as the VIP-NET-0424-1G will have both a device IP address (192.168.1.168) and a multicast IP address for broadcasting the audio/video stream (e.g.: 238.0.0.1:1234)
<b>RTMP</b>	Real Time Messaging Protocol, a TCP based streaming protocol with persistent connectivity
<b>AAC</b>	Audio coding standard used by YouTube, Apple, Sony, etc.
<b>ONVIF</b>	Open Network Video Interface Forum, a standardization of IP based security products
<b>G711A</b>	A PCM audio companding standard used in telephony

## **WARRANTY & CUSTOMER SERVICE**

### **PureLink™ Three (3) Year Limited Warranty**

#### **For PureStream™ Branded Products Only**

Purovision, LLC. (hereinafter "PureLink") warrants its PureStream™ branded products (hereinafter "Product") purchased directly from PureLink or Dealer shall be free from defects in workmanship and materials, under normal use and service, for a period of three (3) years on parts and three (3) years on labor. Any repaired or replaced equipment related to Product shall be covered only under the remaining portion of the warranty. This warranty has no relationship to and exists independently of any warranty offered by Dealer. This warranty is a limited warranty and gives you specific legal rights. You may also have other rights which vary from state to state.

#### **TERMS & CONDITIONS**

PureLink shall repair or replace the Product if it develops a material fault during the period of warranty, on condition that i) the Product has only been subject to normal use in a domestic or commercial environment in a manner consistent with its specification and functionality, ii) the Product has been cared for reasonably and only subjected to reasonable wear and tear, iii) the defect has not been caused by willful or negligent abuse or neglect, or any accident or improper installation procedure, iv) the serial number of the Product has not been altered or removed.

This warranty only applies to the original purchaser, and shall be the exclusive remedy to the original purchaser. PureLink shall not be liable for any damages whatsoever caused by Product or the failure of Product to perform, including incidental or consequential damages. PureLink shall not be liable for any claim made by a third party or made by the purchaser for a third party.

Except as expressly set forth in this warranty, PureLink makes no other warranties, expressed or implied, including any implied warranties of merchantability and fitness for a particular purpose. PureLink expressly disclaims all warranties not satisfied in this limited warranty. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

#### **WARRANTY RETURNS/REPAIRS/EXCHANGES**

No merchandise may be returned without prior authorization from PureLink, and a Return Materials Authorization (RMA) number. Failure to comply with these conditions will result in rejection of the returned merchandise.

Any warranty service on Products must be arranged through Dealer. Authorized returns must be shipped freight prepaid and fully insured to PureLink, Ramsey, NJ USA, with the RMA number clearly marked on the outside of all shipping boxes and containers. PureLink reserves the right at its sole discretion to refuse any shipments arriving freight collect or without an RMA number. Any authorized returned merchandise must be accompanied by a note describing the reason for return, along with contact information including name, phone number, return mailing and shipping addresses, e-mail address, and RMA number.

On any products returned and accepted with an RMA number, return freight charges following repair of items under warranty shall be paid by PureLink, shipping by the standard ground carrier of its choice.

### **ADVANCE WARRANTY REPLACEMENTS**

PureLink's advance replacement service offers a Replacement Unit upon request - free of charge for eligible products purchased less than one (1) year of the warranty claim. Products purchased more than one (1) year prior to the warranty claim do not qualify for advance replacement services.

Advance replacement requests must be validated by a member of PureLink's Technical Support Team. Replacement units may be new or refurbished and is subject to availability. PureLink is responsible for shipping the Replacement Unit to your designated location by standard ground service. All other shipping methods will be responsibility of the Dealer.

**Original Unit Return** – the Original Unit must be returned within thirty (30) calendar days of the return authorization date. Failure to return the Original Unit within this period will be subject to a minimum 15% re-stocking fee. Dealer is solely responsible for the shipping of the Original Unit to PureLink.

### **TO MAKE A WARRANTY CLAIM**

To make a warranty claim, promptly notify PureLink within the warranty periods described above by calling PureLink's Technical Support Department at 1-201-488-3232. PureLink, in its sole discretion, will determine what action, if any, is required under this warranty.

Most problems can be corrected over the phone through close cooperation between Customer and a PureLink technician. To better enable PureLink to address a warranty claim, please have the Product's serial and model numbers. If PureLink, in its sole discretion, determines that an on-site visit or other remedial action is necessary, PureLink may send a representative to Customer's site.

### **CUSTOMER SERVICE**

Technical support inquiries can be submitted electronically through the PureLink website at [purelinkav.com/tickets](http://purelinkav.com/tickets). For immediate assistance please contact PureLink's Customer Care Team (M-F, 9:00 AM – 5:00 PM EST) at +1 (201) 488-3232.