

QIG PD Alive Setting

Overview

This brief guide will illustrate how to set PD (Powered Device) Alive function via switch's configuration web page.

When enabled, the switch will detect a network PoE powered device (for example, an IP CAM) with a set of IP address periodically. If the switch doesn't get any replies from the network PoE powered device, the switch will do a power cycle (PoE power OFF, and PoE power ON) to the port that connects the network PoE powered device, allowing that device to reboot. You can set the frequency of detecting, number of times of detecting, and the time period to perform power cycle when there's no reply via the switch's PoE configuration web page.

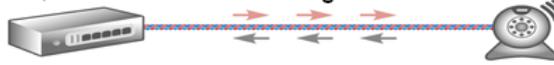
PD Alive works in a never-stopping four-step cycle, as shown in the figure down below:

Step 1

Detecting interval time, retry count and boot time can be set manually

Port	PoE Mode	Priority	Maximum Power (W)	PD Alive Enable	PD IP Address	Interval Time(5-30s)	Retry Count(1-6)	PD Boot Time(10-180s)
1	PoE+	Low	15.4	Enable	192.168.2.112	5	2	10
2	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10

PoE Switch detecting IP CAM in set interval



Step 2

IP CAM not replying in set number of times



Step 3

Power cycle events are recorded via system log

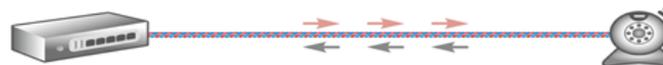
ID	Level	Time	Message
83	Warning	1970-01-01T04:23:43+00:00	PD Alive/Power cycle(Port 1)
84	Info	1970-01-01T04:23:43+00:00	Link down on port 5
85	Warning	1970-01-01T04:24:03+00:00	PD Alive/Power cycle(Port 1)
86	Info	1970-01-01T04:24:03+00:00	Link up on port 6
87	Warning	1970-01-01T04:24:24+00:00	PD Alive/Power cycle(Port 1)
88	Info	1970-01-01T04:24:46+00:00	Link down on port 6
89	Info	1970-01-01T04:24:49+00:00	Link up on port 4

PoE Switch performs a power cycle



Step 4

IP CAM resumes functioning normally and sends replies to PoE Switch



Down below is a reference table of the switch's model name that supports PD Alive function:

Model Name	
Full Management PoE+ Switch	NGSME8H(x)
	NGSME8H(x)-AV
	NGSME16T2H
	NGSME16T2H-AV
	NGSME24T2H
	NGSME24T2H-AV
	NGSME24G4S
NGSME48T2H	

This guide will be divided into 2 sections:

- **Section A:** This section will show you how to log into the switch's configuration web page.
- **Section B:** This section will illustrate how to set PD Alive function via configuration web page.

This guide will use the NGSME8H as a setting example. PD Alive setting in other switches are the same and can be related.

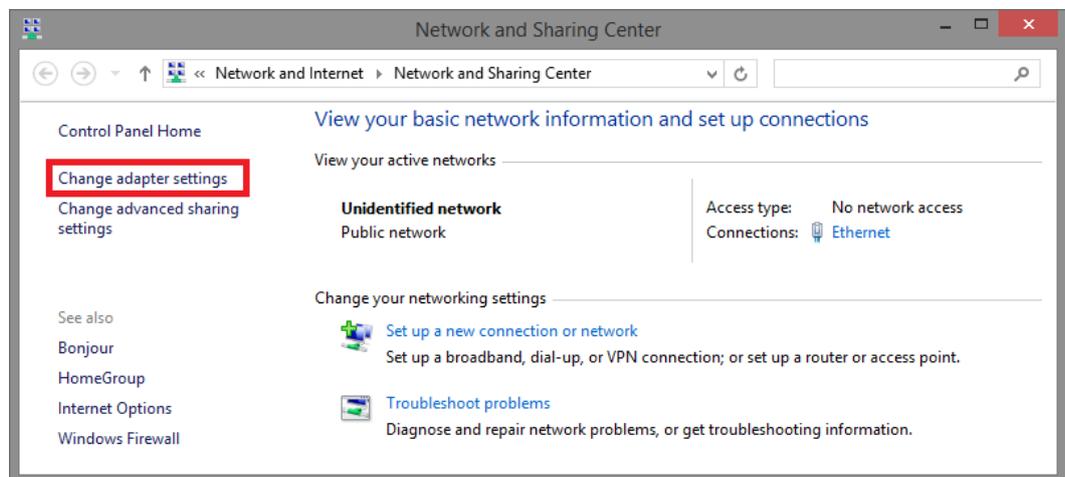
Section A

The following section will illustrate how to:

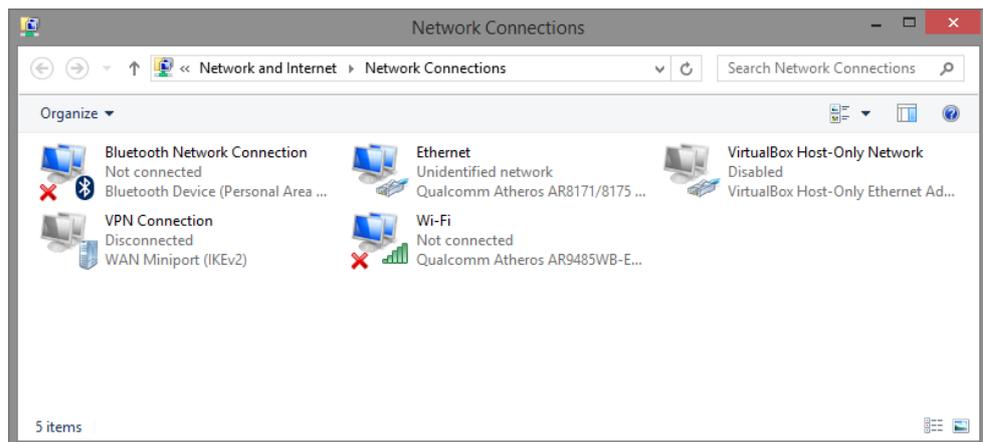
1. Set the IP address properly in a Microsoft Windows 8/ 10 environment for accessing switch's configuration web page. Setting IP address in other Microsoft operating system (such as Windows Vista or Windows 7) is quite the same and can be related.
2. Accessing switch's configuration web page via a web browser (IE, Chrome, Firefox, or Opera).

Please follow the steps down below to access your switch's configuration web page.

- Step 1** Open Network and Sharing Center in Control Panel, and click on Change adapter settings as shown in the figure down below.

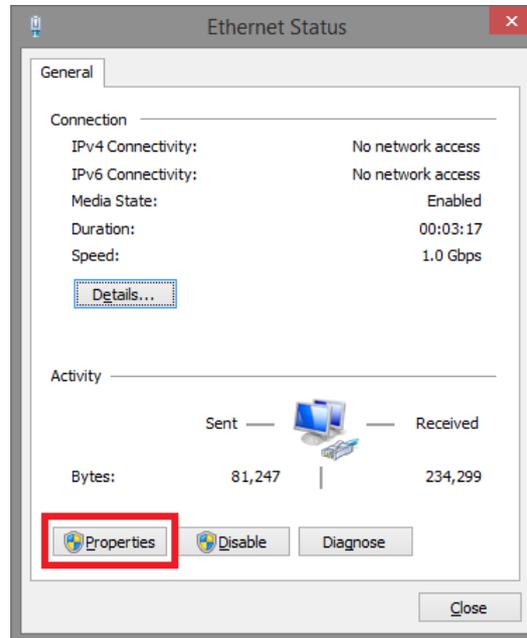


- Step 2** A Network Connections window will pop up, showing all the network connections available on your PC. Please double-click on the network connection you are using for connecting to the switch.

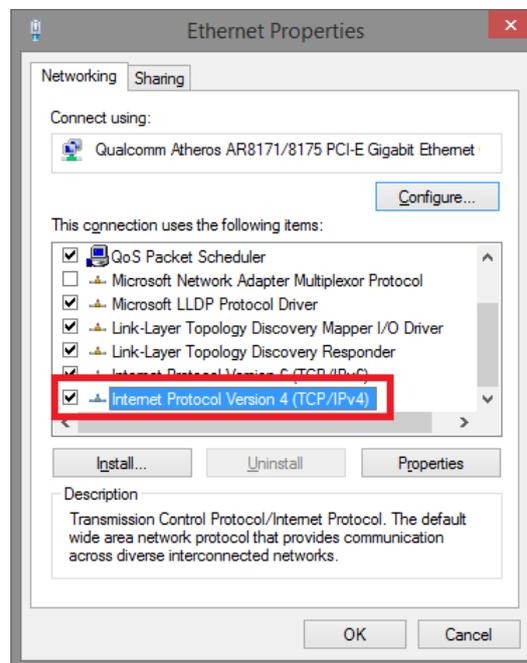


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Step 3 An Ethernet Status window will pop up. Please click on the Properties button as shown in the figure down below.



Step 4 An Ethernet Properties window will pop up. Please double click on the Internet Protocol Version 4 (TCP/IPv4).

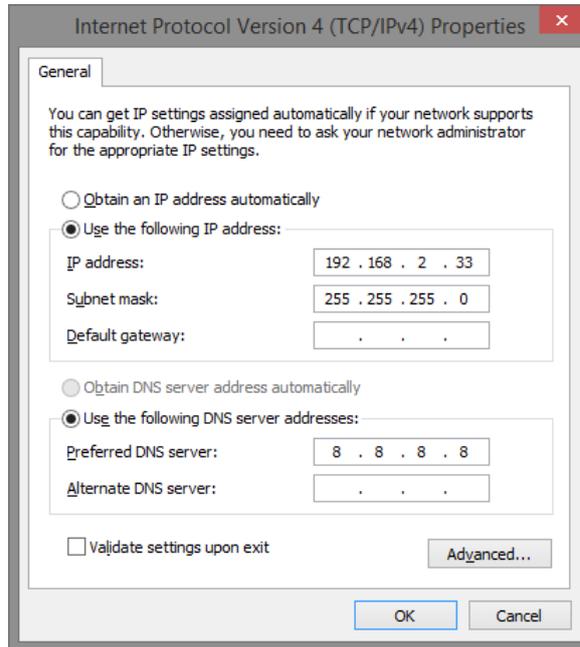


Step 5 An Internet Protocol Version 4 (TCP/IPv4) Properties window will pop up. Please set your PC's IP address and subnet mask as shown in the figure down below.

By default, your product's IP address should be 192.168.2.1. You can set any IP address as long as it's not the same with your switch's IP address and is in the same network segment with your switch's IP address.

Press OK to apply the TCP/IPv4 settings you just made. Now you can connect to your switch using a web browser (i.e. Internet Explorer, Chrome, or Firefox).

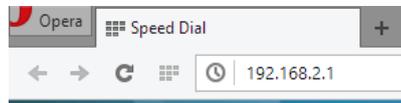
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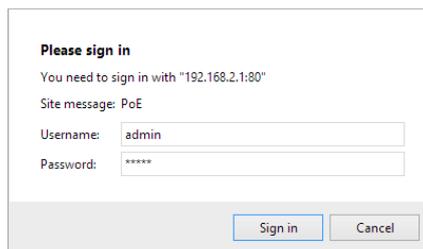
Step 6 Take an RJ45 cable, and connect your PC with your switch.

Step 7 Launch the web browser (IE, Firefox, Opera or Chrome) on your PC.

Type 192.168.2.1 (or the IP address of the switch) in the web browser's URL field, and press Enter.



Step 8 Your web browser will prompt you to input the login username and password. The default username/password for the configuration web page is admin/admin.

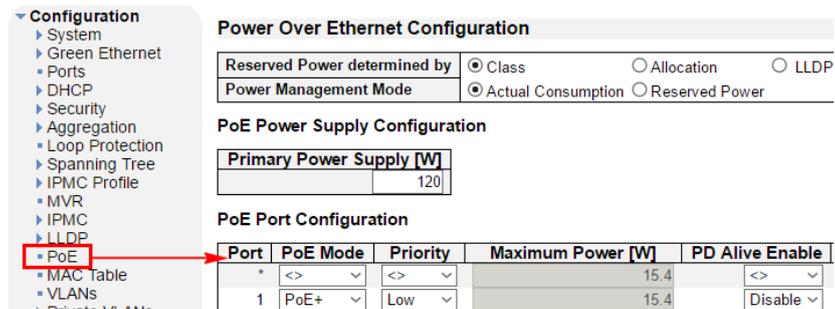


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Section B

The following section will illustrate the PD Alive function in detail. For more information regarding to PoE and other functions, please refer to the switch's user manual.

Step 1 Open your switch's configuration web page, and go to Configuration -> PoE.



Step 2 Here you can set the PD Alive function of the switch.

PoE Port Configuration

Port	PoE Mode	Priority	Maximum Power [W]	PD Alive Enable	PD IP Address	Interval Time(5~30s)	Retry Count(1~6)	PD Boot Time(10~180s)
*	<>	<>	15.4	<>	0.0.0.0	<>	<>	<>
1	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
2	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
3	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
4	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
5	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
6	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
7	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10
8	PoE+	Low	15.4	Disable	0.0.0.0	5	2	10

Save Reset

The settings you can make with PD Alive function include:

- **PD Alive Enable:** This scroll-down menu allows you to enable/disable PD Alive function for each port. (Default: Disable)
- **PD Alive IP Address:** Here you can input the network device's IP address connected to a specific port. (Default: 0.0.0.0)
- **Interval Time (5~30S):** Here you can set the ping interval time. When set, the PoE switch will ping the PoE device connected to that port once with the interval time you set here. (Default: 5 seconds)
- **Retry Count:** Here you can set the ping retry count. If the switch did not get reply for the set number of counts here consecutively, the switch will power cycle that PoE port. (Default: 2 times)
- **PD Boot Time (10~180S):** Here you can set the PD boot time. The PD boot time is a set amount of time that allows your PD to boot. During this time period, the switch won't ping the PD. Please note that it might take 2~3 minutes for your PD (such as IP camera or VoIP phone) to boot, so it is import to leave enough time for your PD to boot. If you don't leave enough time here for your PD to boot, PD might never be able to boot up. (Default: 10 seconds)

By the default setting values of Interval Time (5 seconds), Retry Count (2 times), and PD Boot Time (10 seconds), the switch will ping the IP device every 5 seconds, if the IP device failed to respond 2 times in a row, that port will perform a power cycle. The switch will wait 10 seconds for the IP device to boot, and it will repeat the whole process by detecting the IP device again.

All the power cycle events will be logged by switch. You can access these logs by going to Monitor -> System -> Log.

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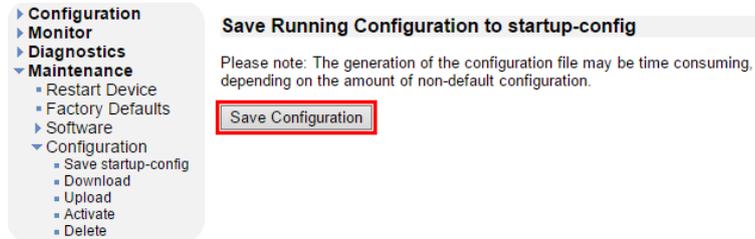
ID	Level	Time	Message
1	Info	1970-01-01T00:00:01+00:00	Switch just made a cold boot.
2	Info	1970-01-01T00:00:05+00:00	Link up on port 2
3	Info	1970-01-01T00:00:10+00:00	Link up on port 4
4	Info	1970-01-01T00:00:31+00:00	Link down on port 4
5	Info	1970-01-01T00:00:34+00:00	Link up on port 4
6	Warning	1970-01-01T00:15:49+00:00	PD Alive/Power cycle(Port 4)
7	Info	1970-01-01T00:15:49+00:00	Link down on port 4
8	Info	1970-01-01T00:15:58+00:00	Link up on port 4
9	Warning	1970-01-01T00:16:04+00:00	PD Alive/Power cycle(Port 4)
10	Info	1970-01-01T00:16:04+00:00	Link down on port 4

After you're done, press the "Save" button to apply all the settings that you made here.

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Step 3 You have to save the current running configuration file to the start-up configuration file or otherwise all the setting you've made here will be lost if you turn off the switch's power.

Please go to Maintenance -> Configuration -> Save startup-config, and press the "Save Configuration" button as shown in the figure down below.



Save Running Configuration to startup-config

startup-config saved successfully.

Additional Note You can also view the PoE status, as well as the IP devices that are connected to the switch via Monitor -> PoE.

Power Over Ethernet Status										Auto-refresh <input type="checkbox"/>	Refresh
Local Port	PD class	Power Requested	Power Allocated	Power Used	Current Used	Priority	Port Status	PD IP Addr.	PD Alive Status		
1	-	0 [W]	0 [W]	0 [W]	0 [mA]	Low	No PD detected	0.0.0.0	●		
2	-	0 [W]	0 [W]	0 [W]	0 [mA]	Low	No PD detected	0.0.0.0	●		
3	-	0 [W]	0 [W]	0 [W]	0 [mA]	Low	No PD detected	0.0.0.0	●		
4	3	15.4 [W]	15.4 [W]	1.2 [W]	36 [mA]	Low	PoE turned ON	192.168.2.58	●		
5	3	15.4 [W]	15.4 [W]	3.6 [W]	80 [mA]	Low	PoE turned ON	192.168.2.54	●		
6	3	15.4 [W]	15.4 [W]	2.8 [W]	65 [mA]	Low	PoE turned ON	192.168.2.45	●		
7	-	0 [W]	0 [W]	0 [W]	0 [mA]	Low	No PD detected	0.0.0.0	●		
8	-	0 [W]	0 [W]	0 [W]	0 [mA]	Low	No PD detected	0.0.0.0	●		
Total		46.2 [W]	46.2 [W]	7.6 [W]	181 [mA]						