

# **15-Commands for PoE**

## Directory

1.Commands for PoE Configuration .....	1
power inline enable (Port) .....	1
power inline enable static (Port) .....	1
power inline high-inrush .....	1
power inline legacy .....	2
power inline max (Global) .....	2
power inline max (Port) .....	2
power inline police .....	3
power inline priority .....	3
power inline monitor interval .....	4
power inline monitor {on  off } .....	4
power inline monitor {on off} .....	4
power inline power-off .....	4
power inline reset interval .....	5
2.PoE Monitoring and Debugging .....	5
show power inline .....	5
show power inline interface ethernet .....	6
3. Step-up Voltage Function .....	7
power inline static .....	7

# 1.Commands for PoE Configuration

## power inline enable (Port)

<b>Command</b>	<b>power inline enable</b> <b>power inline enable auto</b> <b>no power inline enable</b>
<b>parameter</b>	-
<b>default</b>	Default auto mode.
<b>Mode</b>	Port Mode.
<b>Usage Guide</b>	This command is used to enable/disable the specified port PoE, when the port disables the POE, there will be no power output regardless of the power state of the specified port.
<b>Example</b>	Disable power supply on ports1/0/1. Switch(config)#interface ethernet 1/0/1 Switch(config-if-ethernet1/0/1)#no power inline enable

## power inline enable static (Port)

<b>Command</b>	<b>power inline enable static</b>
<b>parameter</b>	-
<b>default</b>	Default auto mode.
<b>Mode</b>	Port Mode.
<b>Usage Guide</b>	This command is used to enable forced power supply. When the port is in the forced power supply mode, the PSE will not detect whether the PD is standard, and the port will supply power directly. Note that the forced power supply port cannot supply power to electrical devices such as PCs, and serious consequences may lead to device damage!
<b>Example</b>	Enable the forced POE function on port 1/0/1.. Switch(config)#interface ethernet 1/0/1 Switch(config-if-ethernet1/0/1)#power inline enable static

## power inline high-inrush

<b>Command</b>	<b>power inline high-inrush enable</b> <b>no power inline high-inrush enable</b>
<b>parameter</b>	-
<b>default</b>	The allowed high-inrush current is not enabled
<b>Mode</b>	Global mode
<b>Usage Guide</b>	Power for non-standard PD instantaneously, this command is used to enable allowed high inrush output, no the command disables high inrush output.

---

High-inrush current will be brought when nonstandard PD is powered instantaneously, it will result PSE self-protection to make PD power failure. Here, if this nonstandard PD must be powered, it needs to allow the high-inrush current.

---

<b>Example</b>	Enable the allowed high-inrush current when nonstandard PD is powered instantaneously. Switch(config)#power inline high-inrush enable
----------------	--

## power inline legacy

---

<b>Command</b>	<b>power inline legacy enable</b> <b>no power inline legacy enable</b>
<b>parameter</b>	-
<b>default</b>	Do not provide power supply for non-standard IEEE PD
<b>Mode</b>	Global Mode
<b>Usage Guide</b>	This command is used to enable non-standard IEEE PD detection functionality. No command disables non-standard IEEE PD detection function.
<b>Example</b>	Set the switch to provide power supply for non-standard IEEE PD. Switch(config)#power inline legacy enable

## power inline max (Global)

---

<b>Command</b>	<b>power inline max &lt;max-wattage&gt;</b> <b>no power inline max</b>		
<b>parameter</b>	<table><tr><td><i>max-wattage</i></td><td>value of the max output power, in W. Any integer from 37 to 130 is valid</td></tr></table>	<i>max-wattage</i>	value of the max output power, in W. Any integer from 37 to 130 is valid
<i>max-wattage</i>	value of the max output power, in W. Any integer from 37 to 130 is valid		
<b>default</b>	Default maximum output power 370W ( Take the actual machine POE output power )		
<b>Mode</b>	Global Mode		
<b>Usage Guide</b>	This command is used to set the global maximum output power of the POE no restore the default configuration.		
<b>Example</b>	Set the global max output power to 50W. Switch(Config)#power inline max 50		

## power inline max (Port)

---

<b>Command</b>	<b>power inline max &lt;max-wattage&gt;</b> <b>no power inline max</b>
----------------	---

---

<b>parameter</b>	<i>max-wattage</i>	the value of the max output power, in mW, ranging from 1 to 15400mW, with a granularity of 100mW. Any value less than 100mW will be taken as 100mW, that is, 1~100 equals 100, 15301~15400 equals 15400. But the value set by users will be maintained without being rounded up.
<b>default</b>	Default port maximum output power 32000mW	
<b>Mode</b>	Port Mode	
<b>Usage Guide</b>	This command can be used to set the maximum output power of the specified port.	
<b>Example</b>	Set the max output power of Port 1 to 0.8W. Switch(config)#interface ethernet 1/0/1 Switch(config-if-ethernet1/0/1)#power inline max 800	

## power inline police

<b>Command</b>	<b>power inline police enable</b> <b>no power inline police enable</b>	
<b>parameter</b>	-	
<b>default</b>	The power priority management policy mode is disabled	
<b>Mode</b>	Global Mode	
<b>Usage Guide</b>	<p>This command is used to enable or disable priority management policy mode.</p> <p>In priority mode, when not enough PSE power is available, ports with low priority will be closed to satisfy the power supply for ports with high priority, no matter how long the access time of a PD is. If two ports have same priority, the one with smaller sequence number is higher privileged.</p> <p>In first-come-first-served mode, new PDs will not get power supply if available PSE power is not enough.</p>	
<b>Example</b>	Enable the power priority policy mode. Switch(Config)#power inline police enable	

## power inline priority

<b>Command</b>	<b>power inline priority {critical   high   low}</b>	
<b>parameter</b>	<b>critical</b>	the highest-level priority
	<b>high</b>	high-level priority
	<b>low</b>	low-level priority

<b>default</b>	Port priority is low
<b>Mode</b>	Port Mode
<b>Usage Guide</b>	This command is used to set the priority level of the port. This command will take effect in the mode of “power inline police enable”. Without enough available power for newly connected PD, ports with higher priority will get power supply first.
<b>Example</b>	<p>Set the priority of Port 1 to high and that of Port 2 to critical.</p> <pre>Switch(Config)#interface ethernet 1/0/1 Switch(Config-Ethernet1/0/1)#power inline priority high Switch(Config)#interface ethernet 1/0/2 Switch(Config-Ethernet1/0/2)#power inline priority critical</pre>

## power inline monitor interval

<b>Command</b>	<b>power inline monitor interval &lt;30-36000&gt;</b>
<b>parameter</b>	<30-36000> Monitoring interval, size range :30-36000, per second
<b>default</b>	The default configuration interval is 150 seconds
<b>Mode</b>	Global mode
<b>Usage Guide</b>	this command is used to configure poe monitor interval time.
<b>Example</b>	<p>The interval between switches is 3600 seconds.</p> <pre>Switch(config)#power inline monitor interval 3600</pre>

## power inline monitor {on | off }

<b>Command</b>	<b>power inline monitor {on off}</b>
<b>parameter</b>	-
<b>default</b>	Default disable poe monitor function
<b>Mode</b>	Port Configuration Mode
<b>Usage Guide</b>	This command is used to enable or disable poe monitoring function.
<b>Example</b>	<p>enable poe detection function on port 1/0/1.</p> <pre>Switch(config-if-ethernet1/0/1)#power inline monitor on</pre>

## power inline power-off

<b>Command</b>	<b>power inline power-off time-range &lt;name&gt;</b>
<b>parameter</b>	<name> Time range name: This name is defined by the user and the character length is 1-64 bits

<b>default</b>	Default not configured
<b>Mode</b>	Port Mode
<b>Usage Guide</b>	this command is used to set poe timing off.
<b>Example</b>	The poe setting switch port 1/0/1 closes at t1. Switch(config-if-ethernet1/0/1)#power inline power-off time-range t1

## power inline reset interval

<b>Command</b>	<b>power inline reset interval &lt;1-600&gt;</b>
<b>parameter</b>	<b>&lt;1-600&gt;</b> Refresh time interval size :1-600 per second
<b>default</b>	Default refresh time is 5 seconds
<b>Mode</b>	Global mode
<b>Usage Guide</b>	this command can be used to set poe refresh interval time.
<b>Example</b>	Sets the refresh interval poe the switch to 20 seconds. Switch(config)#power inline reset interval 20

## 2.PoE Monitoring and Debugging

### show power inline

<b>Command</b>	<b>show power inline</b>
<b>parameter</b>	-
<b>default</b>	-
<b>Mode</b>	<i>Admin Mode</i>
<b>Usage Guide</b>	This command is used to view POE global configuration and state。
<b>Example</b>	View global POE configuration and status.Switch#show power inline。  <div> <div>PoE Work Status</div> <div>: online</div> </div> <div> <div>PoE Port Max Number</div> <div>: 24</div> </div> <div> <div>PoE Support Type</div> <div>: 802.3at/802.3af</div> </div> <div> <div>PoE MCU Software Version</div> <div>: V2.1</div> </div> <div> <div>PoE Power Available</div> <div>: 370 W</div> </div> <div> <div>PoE Power Used</div> <div>: 0 W</div> </div> <div> <div>PoE Power Remaining</div> <div>: 370 W</div> </div> <div> <div>PoE Main Voltage</div> <div>: 54.8 V</div> </div> <div> <div>PoE Min Voltage</div> <div>: 44 V</div> </div> <div> <div>PoE Max Voltage</div> <div>: 57 V</div> </div> <div> <div>PoE Police</div> <div>: Enable</div> </div>

PoE Legacy : Enable  
 PoE High-inrush Status : Disable  
 PoE Monitor Interval : 150 s  
 PoE Reset Interval : 5 s

Display entries	describe
PoE Work Status	POE working status
PoE Power Available	Global maximum of available power
PoE Power Used	Power currently in use
PoE Power Remaining	Remaining available power
PoE Min Voltage	minimum voltage
PoE Max Voltage	maximum voltage
PoE Police	Power Priority Policy Enable Status
PoE Legacy	Status of non-standard PD detection function
PoE High-inrush Status	Poe high inrush state

## show power inline interface ethernet

### Command

**show power inline interface** [ethernet <interface-number> | <interface-name>]

### parameter

**interface-number** Ethernet port number

### default

-

### Mode

Admin Mode

### Usage Guide

This command is used to view the configuration and status displayed on POE specified port.

### Example

View POE information on port 1/0/1.

Switch#show power inline interface ethernet 1/0/1

```

Interface      Status   Oper    Power(mW) Max(mW) Current(mA) Volt(V) Priority
Class
-----
Ethernet1/0/1  Disable Off      0      800      0      54      Low
N/A

```

Display entries	describe
Oper	Working status: On: PD normal connection Off: PD no connection Faulty: PD detection failure Deny : Not enough power available or required to exceed the limit



Current(mA)	Current current at port
Volt(V)	Current voltage at port
Class	PD input power used: 0 Default 0.44~12.95 1 Optional 0.44~3.84 2 Optional 3.84~6.49 3 Optional 6.49~12.95 4 Reserved treated as class 0 and reserved for future use It is impossible for a compatible PD to provide a class 4 signal

### 3. Step-up Voltage Function

#### power inline static

<b>Command</b>	<b>power inline static (24 48)</b>	
<b>Parameter</b>	<b>24</b>	PoE voltage 24V
	<b>48</b>	PoE voltage 48V
<b>Default</b>	Default output 24V	
<b>Mode</b>	Port mode	
<b>Usage Guide</b>	This command is used to modify the output voltage of the switch port. Note that this command should be used under the critical priority level.	
<b>Example</b>	Set the POE output voltage on 1/0/1 to 48V. Switch (config-if-ethernet1/0/1)#power inline static 48	