



LevelOne

POH-2450

24-Port PoE Midspan Hub

User Manual

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class-A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.



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1. Introduction

POH-2450 follows the IEEE 802.3af and is completely compatible with existing Ethernet switches and networked devices. Because the Power Sourcing Equipment (PSE) tests whether a networked device is PoE-capable, power is never transmitted unless a Powered Device is at other end of the cable. It also continues to monitor the channel. If the Powered Device does not draw a minimum current, because it has been unplugged or physically turned off, the PSE shuts down the power to that port. Optionally, the standard permits Powered Devices to signal to the PSEs exactly how much power they need. This allows greater flexibility in the locating of network devices and significantly decreasing installation costs in many cases.

1.1. Features

- Complies to 802.3af Power Over Ethernet
- 400W full powered supply
- Complies to IEEE802.3 10BASE-T, 802.3u 100BASE-TX
- Support 802.3af pre-standard PD
- Support power feeding priority
- Temperature monitoring
- Power limit setting
- TFTP firmware update
- System log
- Configuration up-load and down-load
- SNMP / Web/Console/Telnet management
- Circuit shot protect
- Support Redundant Power
- Simple Network Time Protocol (SNTP)
- Simple Mail Transfer Protocol (SMTP)
- DHCP Client support
- SNMP Trap support
- Management IP address security
- Fan fail detect
- Command line support
- Power overloading protect

1.2. Package Contents

Unpack the contents and verify them against the checklist below.

- POH-2450
- Power Cord
- RS-232 cable
- CD Manual / Utility



POH-2450



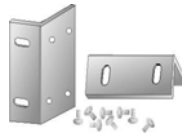
Console Cable



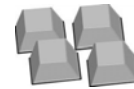
Power Cord



CD Manual / Utility



Rack-mount Kit



Rubber Pads

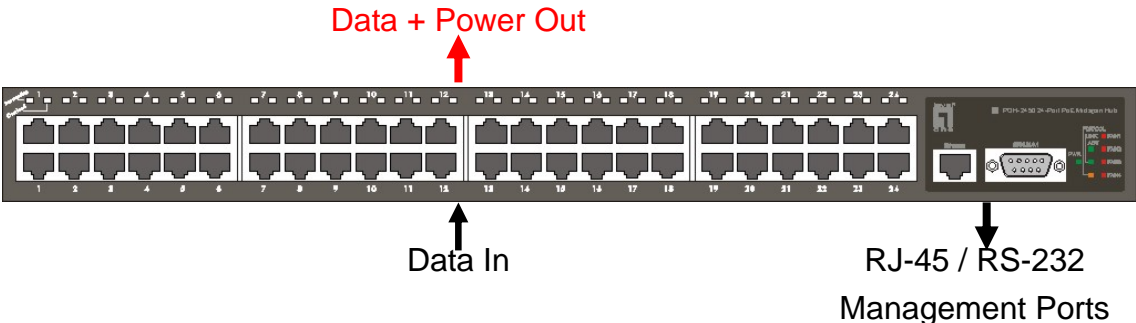
Compare the contents of your POH-2450 package with the standard checklist above. IF any item is missing or damaged, please contact your local dealer for service.

2. Hardware Description

This Section mainly describes the hardware of the POH-2450, and gives a physical and functional overview. Physical dimension is: 440 x 225 x 44mm (W x D x H)

2.1. Front Panel

The Front Panel of the POH-2450 consists of 24x RJ-45 Ethernet ports for Data in and 24x RJ-45 Ethernet for Data out and power out, LED indicators, and one console port. When user connects with PD, please make sure connection of Data in and Data out and power out is correct. Otherwise, the PoE function will not work.



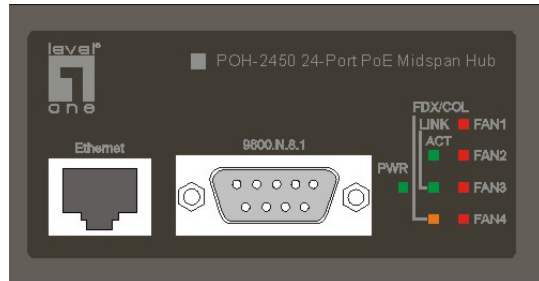
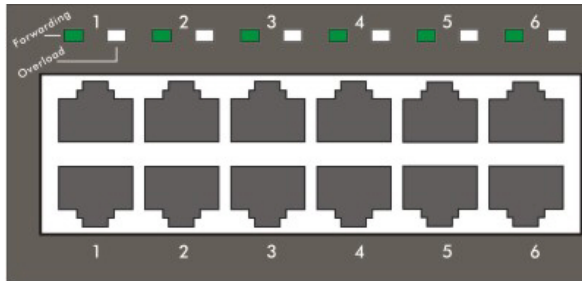
2.2. Rear Panel

The 3-pronged power plug is located at the rear Panel of the POH-2450 as shown below. The Hub will work with AC in the range 100-240V AC, 50-60Hz and also provides one DC 48V input for the extra power connection for the power redundant function. The RS-232 DB-9 female connector on rear side is for UPS management.



2.3. LED Indicators

The LED Indicators gives real-time information of systematic operation status. The following table provides descriptions of LED status and their meaning.



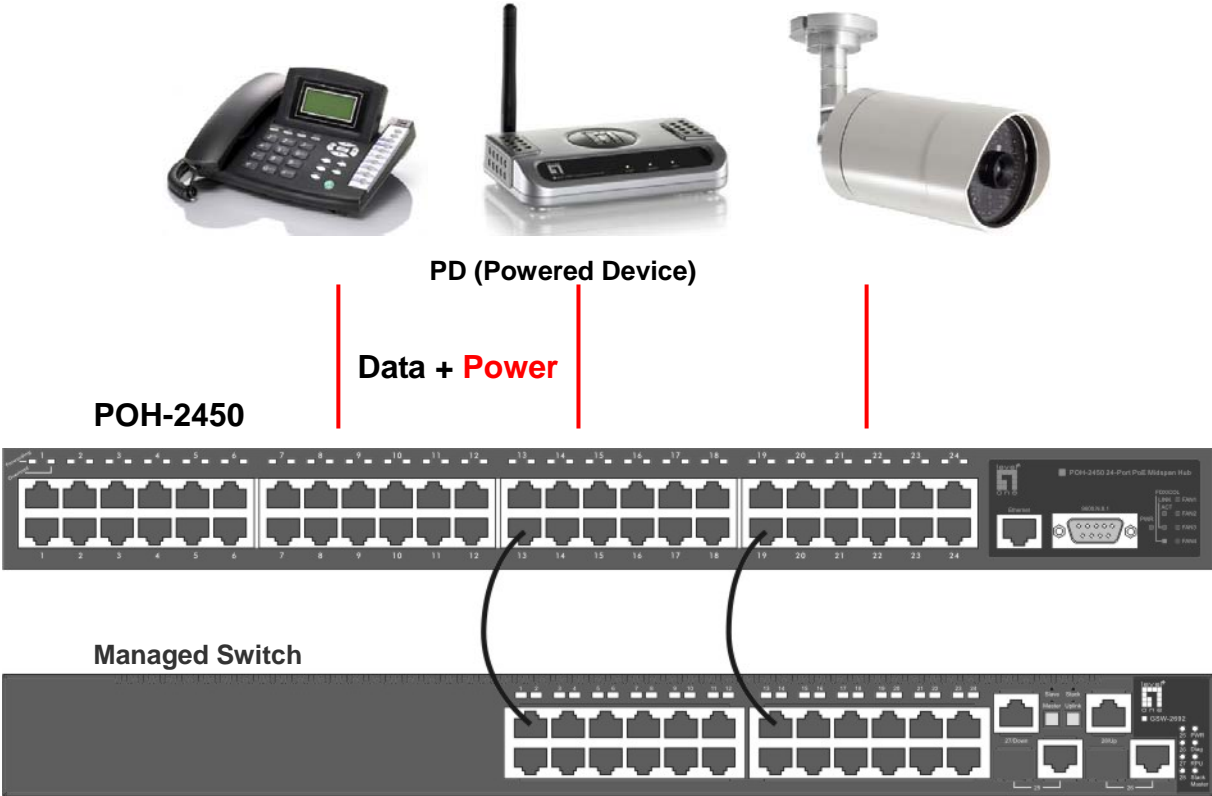
LED	Status	Color	Description
PWR	On	Green	Power On
	Off	--	Power is not connected.
FDX/COL	On	Orange	The Ethernet port is operating in full-duplex mode.
	Blink	Orange	The Ethernet port occurred collision of packets.
	Off	--	In Half-duplex mode.
LINK	On	Green	The Ethernet port is connecting with the device.
	Off	--	No device attached.
ACT	On	Green	The port is receiving or transmitting data.
	Off	--	No data occurred
FAN1~FAN4	On	Red	The fan failed.
	Off	--	The fan is working functionally.
Forwarding	On	Green	Power is transmitting to the device
	Off	--	Power is not transmitting to the device
Overload	On	Green	Device is overload or short.
	Off	--	No device attached or power feeding is in good condition.

2.4. Power On

Connect the power cord to the power socket on the rear panel of the POH-2450. The other side of power cord connects to the power outlet. The internal power supply of the POH-2450 works with voltage range of AC in the 100-240VAC, frequency 50~60Hz. Check the power indicator on the front panel to see if power is properly supplied.

2.5. Network Application

The POH-2450 can provides power to the PD that follow the IEEE 802.3af standard in the network. It can solve the problem of position limitation. The following figure is an example of network application for Power over Ethernet inject Hub.



Note:

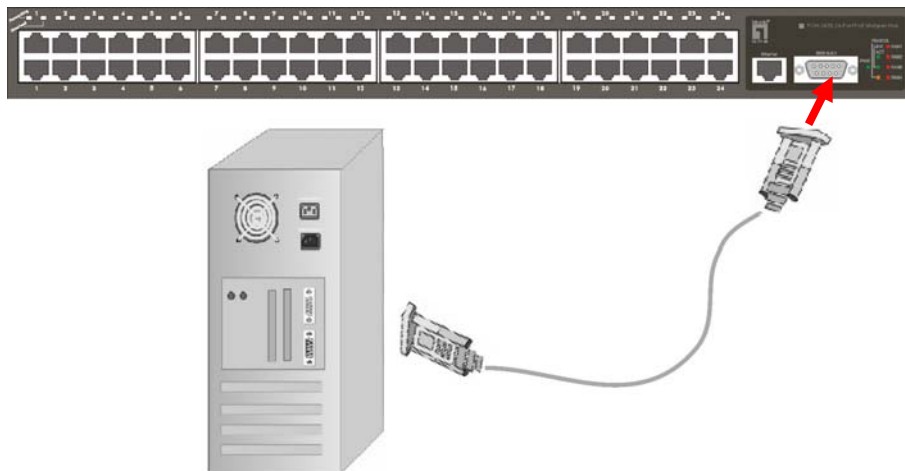
When the POH-2450 connects with the Cisco Aironet 350 Access Point, please use cross over cable for connection. For the other brands' devices, please use non-cross over cable.

3. Management

POH-2450 provides the Console, Telnet, Web and SNMP management, this section shows how to connect the device through different managing tools.

3.1. Console

Attach one end of the supplied RS-232 cable to PC or terminal and the other end to the console port of the hub. The connected terminal or PC must support the terminal emulation program.



When the connection between Hub and PC is ready, turn on the PC and run a terminal emulation program or Hyper Terminal and configure its communication parameters to match the following default characteristics of the console port:

Serial Parameter

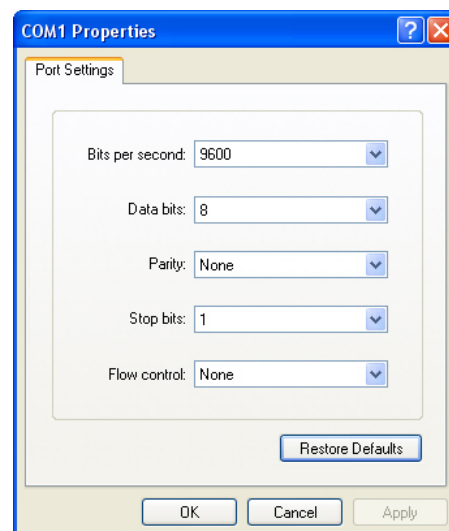
Baud Rate: 9600 bps

Data Bits: 8

Parity: none

Stop Bit: 1

Flow control: None



After finished the parameter settings, click **OK**. When the blank screen shows up, press Enter key to bring out the login prompt. Key in the **root**(default value) for the both User name and Password (use **Enter** key to switch), then press **Enter** key and the Main Menu of console management appears. Please see below figure for login screen.

```
POH-2450: 24-Port PoE Midspan Hub

User Name :
Password :
```

CLI Management

The system supports the console management – CLI command. After you login to the system, you will see a command prompt. To enter CLI management interface, enter **enable** command.

```
Switch>enable
Switch#
```

3.2. Telnet

For the telnet management, user has to set the device IP address that the same network class with PC's. For example; it factory default IP address is 192.168.16.1, then the PC IP address should be 192.168.16.x

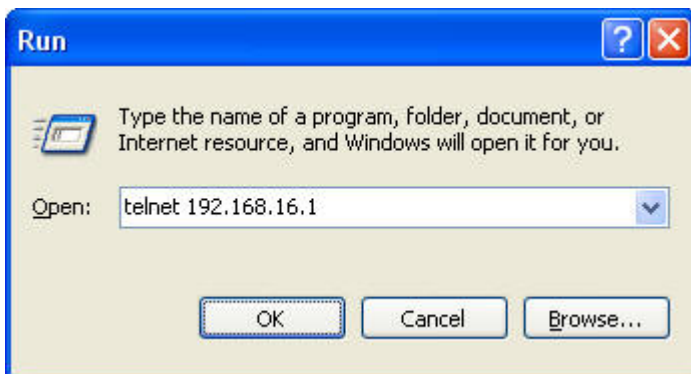
Default Setting

IP Address: **192.168.16.1**

User name: **root**

password: **root**

For example, click **Start → Run...** from Windows XP desktop
Type **telnet 192.168.16.1** into **Open:** space and click **OK**



It shows login screen, enter login name and password, then press Enter

```
POH-2450 24-Port PoE Midspan Hub
Login: root
Password:
```

3.3. Web-Based

The Web-Based Management supports **Internet Explorer 5.0** or up. And, it is applied for Java Applets for reducing network bandwidth consumption, enhance access speed and present an easy viewing screen. Before using web management, install the inject hub on the network and make sure that any one of PC on the network can connect with the inject hub through the web browser.

Note:

By default, user has to explicitly modify the IE browser setting to enable Java Applets to operate network ports.

Default Setting

IP Address: **192.168.16.1**

Subnet Mask: **255.255.255.0**

Default Gateway: **192.168.16.254**

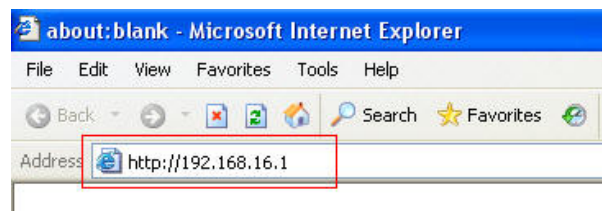
User Name: **root**

Password: **root**

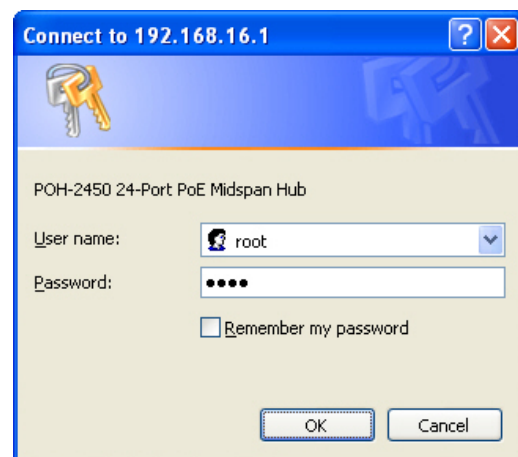
System Login

Launch the Internet Explorer on the PC, key in “http://+” the IP address of the hub”, and then Press “Enter”.

The login screen will appear right after



Key in the user name and password. The default user name and password are the same as “root”. Press “Enter” or ”OK”, and then the home screen of the Web-based management appears



4. Console Management

4.1. Commands Level

Modes	Access Method	Prompt	Exit Method	About
User EXEC	Begin a session with your switch.	switch>	Enter logout or quit	The available user commands at the user level are a subset of those available at the privileged level. Use this mode to <ul style="list-style-type: none"> • Perform Basic tests. • Display system information. • Enter the Privileged mode.
Privileged EXEC	Enter the enable command while in user EXEC mode.	switch#	Enter disable to exit	The privileged command is advance mode Privileged this mode to <ul style="list-style-type: none"> • Display advance function status • save configures
Global configuration	Enter the configure command while in privileged EXEC mode.	switch(config)#	To exit to privileged EXEC mode, enter exit or end	Use this mode to configure parameters that apply to your switch as a whole.

4.2. Commands Set List

User EXEC	E
Privileged EXEC	P
Global configuration	G
PoE	P
UPS	U

System

Commands	Level	Description	Example
show system-info	E	Show system status	switch> show system-info
show version	E	Show version status	switch> show version
show config	E	Show switch configuration	switch> show config
show terminal	P	Show console status	switch# show terminal
write memory	G	Save user configuration into permanent memory (flash rom)	switch# write memory
write terminal	G	Display user configuration on terminal	switch# write terminal
system name [System Name]	G	Configure system name	switch(config)# system name xxx
system location [System Location]	G	Set switch system location string	switch(config)# system location xxx
system description [System Description]	G	Set switch system description string	switch(config)# system description xxx
ip address [Ip-address] [Subnet-mask] [Gateway]	G	Configure the IP address of switch	switch(config)# ip address 192.168.1.1 255.255.255.0 192.168.1.254
ip dhcp [Enable Disable]	G	Enable DHCP client function of switch	switch(config)# ip dhcp enable

Commands	Level	Description	Example
reload	G	Reboot switch	switch(config)# reload
default	G	Restore to default	Switch(config)# default
username [Username]	G	Changes a login username. (maximum 10 words)	switch(config)# username xxxxxx
password [Password]	G	Specifies a password (maximum 10 words)	switch(config)# password xxxxxx
security enable [Enable Disable]	G	Enable IP security function	switch(config)# ip-security enable
http-server [Enable Disable]	G	Enable IP security of HTTP server	switch(config)# ip-security http-server enable
telnet-server [Enable Disable]	G	Enable IP security of telnet server	switch(config)# ip-security telnet-server enable
address [1~10] [IP]	G	Set the IP security list	switch(config)# ip-security address 1 192.168.1.55
show ip-security	P	Show the information of IP security	switch# show ip-oosecurity

SNMP

Commands	Level	Description	Example
snmp system-name [System Name]	G	Set SNMP agent system name	switch(config)# snmp system-name l2switch
snmp system-location [System Location]	G	Set SNMP agent system location	switch(config)# snmp system-location lab
snmp community-strings [Community] right [RO/RW]	G	Add SNMP community string.	switch(config)# snmp community-strings public right rw
snmp-server host [Host-address] community [Community-string]	G	Configure SNMP server host information and community string.	switch(config)# snmp-server host 192.168.1.50 community public trap-version v1
no snmp-server host [Host-address]	G	Remove SNMP server host information.	Switch(config)# no snmp-server host 192.168.1.50
no snmp community-strings [Community]	G	Remove SNMP community string.	Switch(config)# no snmp community-strings public

TFTP

Commands	Level	Description	Example
copy flash:config.text tftp	G	Save configuration to TFTP and need to specify the IP of TFTP server and the file name of image.	switch(config)# copy flash:config.text tftp
tftp:config.text flash	G	Get configuration from TFTP server and need to specify the IP of TFTP server and the file name of image.	switch(config)# tftp:config.text flash
tftp:firmware flash	G	Upgrade firmware by TFTP and need to specify the IP of TFTP server and the file name of image.	switch(config)# tftp:firmware flash

SystemLog, SMTP

Commands	Level	Description	Example
systemlog ip [IP address]	G	Set System log server IP address.	switch(config)# systemlog ip 192.168.1.100
systemlog [Enable Disable]	G	Set System Log Function	switch(config)# systemlog enable
show systemlog	E	Display system log.	Switch> show systemlog
show systemlog	P	Show system log client & server information	switch# show systemlog
smtp [Enable Disable]	G	Enable SMTP function	switch(config)# smtp enable
smtp ip [IP]	G	Configure SMTP server IP	switch(config)# smtp serverip 192.168.1.5
smtp authentication [Enable Disable]	G	Enable SMTP authentication	switch(config)# smtp authentication enable
smtp account [account]	G	Configure authentication account	switch(config)# smtp account User
smtp password [password]	G	Configure authentication password	switch(config)# smtp password 123456
smtp [Enable Disable] e-mail alert	G	Enable e-mail alert	switch(config)# smtp enable e-mail alert
smtp receipt-mail-address [1~4] [Mail address]	G	Set SMTP receipt mail address	switch(config)# smtp receipt-mail-address 1 User@mail.box
show smtp	P	Show the information of SMTP	switch# show smtp

SNTP

Commands	Level	Description	Example
sntp enable [Enable Disable]	G	Enable SNTP function	switch(config)# sntp enable
sntp ip [IP]	G	Set SNTP server IP	switch(config)# sntp ip 192.169.1.1
sntp timezone [Timezone]	G	Set timezone	switch(config)# sntp timezone Hawaii

UPS

Commands	Level	Description	Example
power	P	Enter Power function.	switch# power
status	G	Show Power I/O status.	switch(power)# status
Info	G	Show Power info.	switch(power)# info
test10	G	Test for 10 seconds.	switch(power)# test10

PoE

Commands	Level	Description	Example
poe	P	Enable PoE function.	switch# poe
portabl [Enable Disable] [Ports]	G	Port Enable & Disable configure.	switch(poe)# portabl enable 2
portplm [100~20000] [Port]	G	Port Power Limit Max Setting.	switch(poe)# portplm 15400 3
system-power-limit [37~400]	G	Set system power limit value.	switch(poe)# system-power-limit 806
8023af-pre-standard [Enable Disable]	G	Set IEEE 802.3af pre-standard.	switch(poe)# 8023af-pre-standard enable
temperature-alarm [1~2] [Temperature]	G	Set system temperature alarm.	switch(poe)# temperature-alarm 1 50
power-management [1~5]	G	Set power management mode.	switch(poe)# power-management 5
show status	G	Show POE status.	switch(poe)# show status
show configure	G	Show POE configure.	switch(poe)# show configure
show system	G	Show POE system information.	switch(poe)# show system
show temperature	G	Show POE system temperature.	switch(poe)# show temperature
show power-management	G	Show POE power management mode.	switch(poe)# show power-management

5. Web-Based Management

This section introduces the configuration and functions of the Web-Based management. On CPU board of the hub there is an embedded HTML web site residing in flash memory, which offers advanced management features and allow users to manage the hub from anywhere on the network through a standard browser such as Microsoft Internet Explorer.



5.1. System

The **System** contains 5 sub-items, such as follows:

- System Information
- Console Port Information
- System IP Configuration
- Security Manager
- System Log.

System Information

System Name: Display the name of hub. The maximum length is 64 bytes.

System Location: Display the hub physical location. The maximum length is 64 bytes.

Firmware Version: Display the hub's firmware version.

Kernel Version: Display the kernel software version.

Hardware Version: Display the hardware version

MAC Address: Display the unique hardware address assigned by manufacturer (default)

PoE Chip Version: Display the chip version on main board.

System Information

System Name	POH-2450
System Description	24-Port PoE Midspan Hub
System Location	
Firmware Version	v1.00
Kernel Version	v1.05
Hardware Version	A5.00
MAC Address	00116B0199A3
PoE Chip Version	v501

Console Port Information

Baud Rate(bps): display the transmission rate (bits per second).

Parity Check: display which parity check method is used.

Data Bits(bit): display the number of bits per unit of data.

Stop Bits(bit): display the number of bits for announcing the end of the data.

Flow Control: display the method of flow control.

Console Port Information

Baud Rate (bps)	9600
Parity Check	none
Data Bits (bit)	8
Stop Bits (bit)	1
Flow Control	none

System IP Configuration

User can configure the IP Settings and DHCP client function

DHCP Client: To enable or disable the DHCP client function. When DHCP client function is enabled, the PoE hub will be assigned the IP address from the network DHCP server. The default IP address will be replaced by the DHCP server assigned IP address. After user click **[Apply]** button, a popup dialog show up. It is to inform the user that when the DHCP client is enabled, the current IP will lose and user should find the new IP on the DHCP server.

IP Address: Assign the IP address that the network is using. If DHCP client function is enabled, and then user needn't assign the IP address manually. Instead, the network DHCP server will assign the IP address for the PoE hub and display in this column. The default IP is 192.168.16.1

Subnet Mask: Assign the subnet mask of the IP address. If DHCP client function is enabled, and then user needn't assign the subnet mask

Gateway: Assign the network gateway for the PoE hub. The default gateway is 192.168.16.254

Gateway: Assign the network gateway for the PoE hub. The default gateway is 192.168.16.254

System IP Configuration

DHCP Client : ▾

IP Address	<input type="text" value="192.168.168.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.168.254"/>

Security Manager

Change web management login user name and password for the management security issue

User name: Key in the new user name(The default is "root")

New Password: Key in the new password(The default is "root")

Confirm password: Re-type the new password

And then, click **[Apply]**

Security Manager

User Name :	<input type="text" value="root"/>
New Password :	<input type="password" value="••••"/>
Confirm Password :	<input type="password" value="••••"/>
	<input type="button" value="Apply"/>

Note: Password requires 1-10 letters or numbers with no spaces or special characters

System Log

Configuring the system event mode that want to be collected and system log server IP

System Log

System Log Client Mode	<input type="text" value="Disable"/>	<input type="button" value="Apply"/>
System Log Server IP Address	<input type="text" value="192.168.16.2"/>	

1: Jan 1 00:00:00 : Clear System Log Table!

Page.1

5.2. PoE

The article of **PoE** contains 5 sub-items, such as follows:

- PoE Status
- Controller Temperature
- PoE Power Manage
- PoE Port Configuration
- PoE Port Status

PoE Status

PoE Status shows status of power usage including Power Consumption, Voltage, etc.

Current Get Power: display the current get power (watts).

Currently Power Consumption: display the currently power consumption.

Currently Voltage: display the currently voltage.

Current: display the load current (ampere).

System Power Limit: the maximum power limit.

IEEE 802.3af Pre-standard: to enable or disable IEEE 802.3af Pre-standard function.

Click **[Refresh]** for getting newest status, and then click **[Apply]** to configure.

PoE Status

System Information	
Current Get Power	2 W
Currently Power Consumption	3 W
Currently Voltage	49.4 Vdc
Current	0.0 A

PoE System Configure	
System Power Limit	400 W (37~400W)
IEEE 802.3af Pre-standard	Enable

Controller Temperature

Chipset & Port number: display the controller chip number.

Current Temperature: display the current operating temperature of the chip.

Set Temperature Alarm: set the number of temperature in centigrade. When the operating temperature of the chip reach the set number, the system will issue an alarm message.

And then, click **[Apply]**

Controller Temperature

Chipset & Port number	Current Temperature
Chip 1(Port 1-12)	28 C
Chip 2(Port 13-24)	30 C

Chipset & Port number	Set Temperature Alarm
Chip 1(Port 1-12)	<input type="text" value="120"/> C
Chip 2(Port 13-24)	<input type="text" value="120"/> C

PoE Power Manage

Total Allocated Power: display the total allocated power of the PoE hub.

Port Power Limit: display the power limit to a single port.

Start Condition: display the type of start condition.

Power Management Mode: there are 5 modes for selecting.

And then, click **[Apply]**

PoE Power Manage

Total Allocated Power	Port Power Limit	Start Condition
Consumption	Max.	None

Power Management Mode	1
-----------------------	---

Apply

- 1
- 2
- 3
- 4
- 5

An optional "**Power Class**" feature allows the PD to indicate its power requirements by changing the sense resistance at higher voltages. Power Class selection is depending on the amount of power they require.

Mode	Class	Usage	Power Level (watts)
1	0	Default	0.44 to 12.95
2	1	Optional	0.44 to 3.84
3	2	Optional	3.84 to 6.49
4	3	Optional	6.49 to 12.49
5	4	Reserved	

POE Port Configuration

The Port Configuration menu allows the user to control individual ports, and set-up parameters.

Port: port 1 ~ port 24 are listed for selecting

Port State: enable or disable the selected port.

Power Limit Value: set the power limit value to the port.

And then, click **[Apply]**

PoE Port Configuration

Port	Port State	Power Limit Value
Port.01		
Port.02	Enable	15400 mW (100 ~ 20000mW)
Port.03		
Port.04		

Apply

Port	State	Power Limit Value
Port.02	Enable	15400 mW

Note:

If change the **Power** values, make sure your PD does correspond to required power.

PoE Port Status

The Port Status shows individual ports status and monitor their status.

Port: display the port number.

Status: display the status of the port.

Forward Power: display the forwarding power which is provided by the hub.

Current: display the current of the port.

Class: display the class status.

Event: display the related events to the port.

And then, click **[Refresh]** to get the newest information.

PoE Port Status

Port	Status	Forward Power	Current	Class	Event
Port.01	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.02	Forward	2.7 W	56 mA	0	Valid resistor detected
Port.03	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.04	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.05	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.06	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.07	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.08	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.09	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.10	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.11	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.12	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.13	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.14	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.15	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.16	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.17	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.18	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.19	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.20	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.21	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.22	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.23	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.24	Disconnect	0.0 W	0 mA	0	Detection is in Process

Refresh

5.3. MISC Configuration

The article of MISC Configuration contains 5 sub-items:

- Power Status
- SNTP Configuration
- SNMP Configuration
- Email Alert
- IP Security
- Power Status

Power Status

Click **[Refresh]** to get the current information.

Input Voltage: showing the real, minimum, and maximum input voltage.

Output Voltage: showing the real, minimum, and maximum output voltage.

Frequency: showing the real, minimum, and maximum frequency.

Battery Capacity: showing the real, minimum, and maximum battery capacity.

UPS Overload: showing the real, minimum, and maximum UPS overload.

Temperature: showing the real, minimum, and maximum operating temperature.

RatVoltage(Vac): display the Rat Voltage(Vac).

RatVoltage(Vdc): display the Rat Voltage(Vdc).

RatCurrent: display the RatCurrent.

RatFrequency: display the RatFrequency.

UPS Status

	Input Voltage	Output Voltage	Frequency
Now	112.2 Volt.	50.2 Volt.	60.0 Hz
Min	0 Volt.	0 Volt.	0 Hz
Max	112.2 Volt.	50.2 Volt.	60.0 Hz
	Battery Capacity	UPS Overload	Temperature
Now	18.5 %	1 %	48.0 C
Min	0 %	0 %	0 C
Max	18.5 %	2 %	50.4 C

RatVoltage	0.0 Vac	RatBtyVoltage	0.0 Vdc	RatCurrent	0.0 A	RatFrequency	0.0 Hz
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	UPS Connecting		UPS Input Ok		Potential Ok		Beeper On
	UPS Ok		UPS Bypass		UPS Test		UPS Shutdown

SNTP Configuration

User can configure the SNTP (Simple Network Time Protocol) settings. The SNTP allows user to synchronize PoE Hub clocks from the Internet.

SNTP Client: enable or disable SNTP function to get the time from the SNTP server.

UTC Timezone: set the hub time zone location.

SNTP Server IP: set the SNTP server IP address

Switch Timer: display the hub current time

SNTP Configuration

SNTP Client:

UTC Timezone	<input type="text" value="(GMT)Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London"/> <input type="button" value="v"/>
SNTP Server IP	<input type="text" value="192.168.16.2"/>
Switch Timer	<input type="text"/>

SNMP Configuration

Use this page to define management stations as trap managers and to enter SNMP community strings. You can also define a name, location and contact person for the switch

System Options

Enter the following information about the hub, as needed:

Name: Enter a name to be used for the hub.

Location: Enter the location of the PoE hub

Contact: Enter the name of contact person or organization.

Community Strings

Community strings serve as password and can be entered as one of the following:

Current Strings: User can remove the current strings or add new community strings.

New Community Strings: Fill the column with name of string. Click **[Add]**

To remove the community string, select the community string that you have defined and click **[Remove]**. You cannot remove the default community string set.

RO: Read only. Enables requests accompanied by this string to display MIB-object information.

RW: Read/write. Enables requests accompanied by this string to display MIB-object information and to set MIB objects.

Trap Managers

A trap manager is a management station that receives traps. The management station then generates alerts based on the received traps. If no trap manager is defined, no traps will be issued. Create a trap manager by entering the IP address of the station, a community string, and selects the SNMP version.

IP Address: Enter the IP address of trap manager.

Community: Enter the community string.

Trap version: Select the SNMP trap version type – v1 or v2c

SNMP Trap

- Managed Ethernet port Link down/up.
- DC disconnect trap - PoE port Event
- Disconnect PDU off - PoE port event
- Over loading trap - PoE port event
- Short circuit trap - PoE port event
- Over Temp protection trap - PoE port event.
- Power management - PoE port off event
- Authentication fail trap
- Cold start trap
- Redundant Power (DC48V) disconnect trap (RPS-2450)
- Redundant power AC fault - Redundant power fault trap (RPS-2450)
- Battery Low Trap (RPS-2450)
- Fan fail trap (RPS-2450)

* RPS-2450 is optional Redundant Power unit for the POH-2450

SNMP Configuration

System Options

Name :	<input type="text"/>
Location :	<input type="text"/>
Contact :	<input type="text"/>

Community Strings

Current Strings :	New Community String :
<input type="text" value="public__RO"/> <input type="text" value="private__RW"/>	<input type="text" value="String :"/>
<input type="button" value="Add"/>	<input checked="" type="radio"/> RO <input type="radio"/> RW
<input type="button" value="Remove"/>	

Trap Managers

Current Managers :	New Manager :
<input type="text" value="192.0.1.41: public, v2"/>	<input type="text" value="IP Address :"/>
<input type="button" value="Add"/>	<input type="text" value="Community :"/>
<input type="button" value="Remove"/>	<input checked="" type="radio"/> v1 <input type="radio"/> v2c

Email Alert

User can set up the mail server IP, mail account, password to the account, and forwarded email account for receiving the event alert. Refer to the SNMP Trap for alert events.

Email Alert: Enable or disable the email alert function.

SMTP Server IP: Set up the mail server IP address (when Email Alert enabled, this function will then be available).

Authentication: Mark the check box to enable and configure the email account and password for authentication (when Email Alert enabled, this function will then be available).

Mail Account: Set up the email account to receive the alert e.g. admin@123.com. It must be an existing email account on the mail server, which you had set up in SMTP Server IP Address column.

Password: The email account password.

Confirm Password: Reconfirm the password.

Rcpt e-mail Address 1 ~ 4: You can also assign up to 4 e-mail accounts to receive the alert.

Email Alert

E-mail Alert:

SMTP Server IP Address :	<input type="text" value="0.0.0.0"/>
<input checked="" type="checkbox"/> Authentication	
Mail Account :	<input type="text"/>
Password :	<input type="text"/>
Confirm Password :	<input type="text"/>
Rcpt e-mail Address 1 :	<input type="text"/>
Rcpt e-mail Address 2 :	<input type="text"/>
Rcpt e-mail Address 3 :	<input type="text"/>
Rcpt e-mail Address 4 :	<input type="text"/>

IP Security

IP security function allows user to assign 10 specific IP addresses that have permission to access the PoE inject hub through the web browser for the securing hub management.

Enable IP Security: mark this check box to enable IP security function.

Enable HTTP Server: when this check box is checked, the IP addresses among Security IP1 ~ IP10 will be allowed to access via HTTP service.

Enable Telnet Server: when checked, the IP addresses among Security IP1 ~ IP10 will be allowed to access via telnet service.

Security IP 1 ~ 10: Assign up to 10 specific IP address. Only these 10 IP address can access and manage the PoE hub through the Web browser
And then, click **[Apply]** button to apply the configuration

IP Security

Enable IP Security
 Enable HTTP Server
 Enable Telnet Server

Security IP1	0.0.0.0
Security IP2	0.0.0.0
Security IP3	0.0.0.0
Security IP4	0.0.0.0
Security IP5	0.0.0.0
Security IP6	0.0.0.0
Security IP7	0.0.0.0
Security IP8	0.0.0.0
Security IP9	0.0.0.0
Security IP10	0.0.0.0

Note:

User must add the DHCP Server IP on the list if DHCP Client is enabled

5.4. TFTP Firmware Upgrade

It provides the functions allowing user to update the hub firmware. Before updating, make sure you have your TFTP server ready and the firmware image is on the TFTP server.

TFTP Server IP Address: fill in your TFTP server IP

Update File Name: the name of firmware image

Click [**Apply**]



The screenshot shows a web-based configuration interface for a TFTP Firmware Upgrade. At the top, the title "TFTP Firmware Upgrade" is displayed in blue, underlined text. Below the title is a form with two input fields. The first field is labeled "TFTP Server IP Address" and contains the value "192.168.16.2". The second field is labeled "Update File Name" and contains the value "image.bin". Below the form are two buttons: "Apply" and "Help".

TFTP Server IP Address	192.168.16.2
Update File Name	image.bin

5.5. Configuration Backup

TFTP Server IP Address: fill in your TFTP server IP

Backup File Name: fill in the name of the backup file

And then, click **[Backup]**

TFTP Server IP Address: fill in your TFTP server IP

Restore File Name: fill in the name of the restore file

And then, click **[Restore & Reboot]**

Configuration Backup

TFTP Server IP Address	192.168.16.2
Backup File Name	data.dat

TFTP Server IP Address	192.168.16.2
Restore File Name	data.dat

5.6. Save Configuration

Save all configurations that you have made in the system. To ensure the all configuration will be saved. Click **[Save Configuration]** to save the all configuration to the flash memory.

Save Configuration

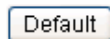


5.7. Factory Default

Reset hub to default configuration. Click **[Default]** to reset all configurations to the default value.

Factory Default

Please click **[Default]** button to restore factory default setting.

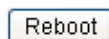


5.8. System Reboot

Reboot the hub in software reset. Click **[Reboot]** to reboot the system.

System Reboot

Please click **[Reboot]** button to restart switch device.

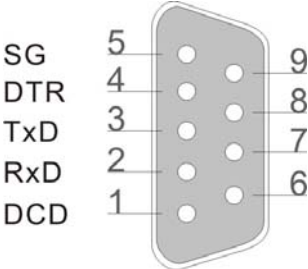


6. Technical Specification

Model	POH-2450
Standard	IEEE802.3af Power over Ethernet
Connector	Data in: 24 x RJ-45, Data pin 1,2,3,6 Data and power out: 24 x RJ-45
PIN Assignment	Data pin 1,2,3,6 Power pin (V+): 4, 5, Power pin (V-): 7, 8
Power out put	Deliver 48VDC to PD
Management	SNMP, Telnet, Command line interface and Web management
Power over Ethernet mode	Mid-Span
Management utility	Support Microsoft windows based application for power management
PoE System Configuration	IEEE802.3af and Pre-standard selection, Show system power voltage, current, power consumption. Temperature and power consumption limiting setting.
PoE Port Configuration	Port Disable / Enable Port Monitoring Power limiting rule setting
PoE Port Status	Port status, Currently feeding power, current, detected class. Shows the cause of port off (AC off of disconnecting, DC off of disconnecting, PDU off of disconnecting , off of over loading, off of short circuit, off of Over Temperature protection, Power management –Port off)
LED	System: Power Per port: Forwarding, Overload Console port: FDX/COL, LINK, ACT Fan: FAN1, FAN2, FAN3, FAN4
Power	AC 100~240V, 50/60 Hz, 400 Watts DC input 48V
Power consumption	407 Watts (maximum) @ AC 110V
Cooling	4 x DC fan with fault detect function
Operating environment	0°C~45°C , 5%~95%RH
Storage temperature	-40°C~70°C , 95% RH
Dimension	440mm x 225mm x 44mm (W x D x H)
EMI	CE, FCC Class A
Safety	CE/EN60950-1

6.1. Console Port Pin Assignment

The female DB-9 serial port on the PoE hub front panel is used to connect to the switch for out-of-band console configuration. The web interface configuration program can be accessed from PC running the system utility program. The pin assignments used to connect to the serial port are provided in the following tables.



DB-9 Console Port Pin Numbers

DB-9 Port Pin Assignments

EIA Circuit	CCITT Signal	Description	Switch DB9 DTE Pin #	PC DB9 DTE Pin #
BB	104	RxD (Received Data)	2	2
BA	103	TxD (Transmitted Data)	3	3
AB	102	SGND (Signal Ground)	5	5

No other pins are used

Console Port to 9-Pin DTE Port on PC

Switch 9-Pin Serial Port	CCITT Signal PC 9-Pin	DTE Port
2 RXD	<-----RXD ----->	3 TxD
3 TXD	-----TXD ----->	2 RxD
5 SGND	-----SGND -----	5 SGND

No other pins are used.

6.2. RJ-45 pin Assignment

Non-802.3af standard PD with POH-2450 PoE Midspain Hub RJ-45 pin assignment

Pin out of Cisco non-802.3af standard PD

Pin	Signal
1	RX+
2	RX-
3	TX+
4	VCC -
5	VCC -
6	TX-
7	VCC +
8	VCC +

Pin out of PoE Midspain Hub

Pin	Signal / Name
1	RX+
2	RX-
3	TX+
4	VCC+
5	VCC+
6	TX-
7	VCC-
8	VCC-

Note:

Before you powered PD, please check the RJ-45 connector pin assignment follow IEEE802.3af standard, otherwise you may need change one of the RJ-45connector pin assignment, which attached with the UTP cable.