



# TRANSITION NETWORKS SESPM-2P-24V-CP Passive PoE Port Module Installation Guide

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**TRANSITION NETWORKS SESPM-2P-24V-CP Passive PoE Port Module**



## Features

- Lets you power items such as Ubiquiti and Fluidmesh WAPs, radar equipment, etc. via 24VDC or “passive PoE”.
- Works as an additional combo port module, but in addition to providing a 10/100/1000 copper / 1000 Base-X fiber Ethernet port, it also provides conversion to 24VDC to send passive PoE to non-standard PoE devices.
- 24VDC Passive PoE Module fits into and is powered by the proprietary M.2 slot in the SESPM1040-541-LT-xx.
- Plug-and-play installation and operation.
- 24VDC power from the module is off by default to avoid sending power to connected devices not requiring power (always be aware of connected devices and their ability to accept power). Once enabled, power to the connected 24V device remains active during switch reboot. If the connected device is later removed, user should manually disable the port in the UI or CLI to prevent future devices from being connected and powered without consent.

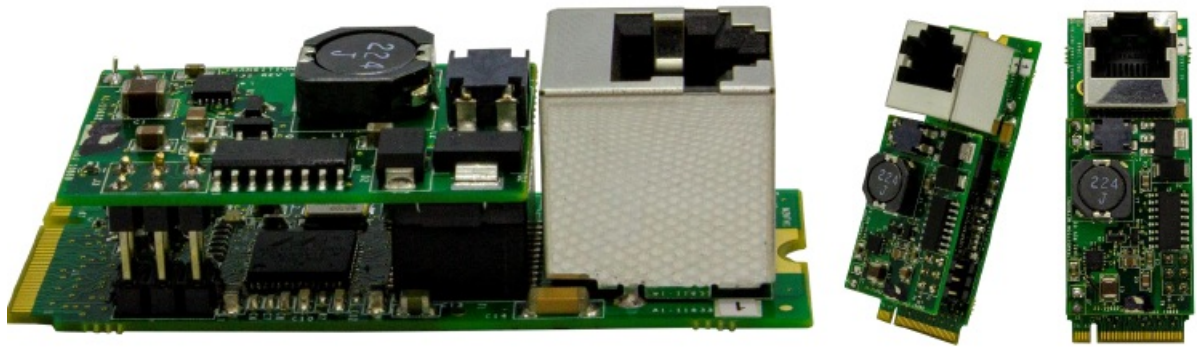
## Management Features

- Can enable/disable 24V PoE power via the Web UI, CLI or via CLI commands through the Switch Manager Mobile app with wireless BLE link.
- Ability to display power being consumed by attached device.
- Port automatically shuts down if excessive power is used (added at Software Rev 3.0.2).

## Parts List

- **DESCRIPTION**
- TN Product Support Postcard
- Manual, SESPM-2P-24V-CP Option Quick Start Guide
- Thermal Pad, 0.125 THK, M.2, PoE++ (in 2×3” Bag)
- Screw, SEMS, M2.5 x 0.45 x 4mm, Zinc (in 2×3” Bag)

- Packaging, 2 x 3, 2MIL Reclosable Poly Bag
- PCB Assembly, SESPM-2P-24V-CP Module (in 3x5" Static Shield Bag) Packaging, 3 x 5" 3MIL Ziplock Static Shield Bag



SESPM-2P-24V-CP Dimensions: 2.325" x 0.866" x 0.673" (L x W x H) Weight: 0.6 ounces (17.0 grams)

### Install Procedure

**Caution:** Passive PoE devices do not perform a signature detection/qualification check. You must know what PoE voltage your attached device requires before plugging in the Ethernet cable and powering it up. Do not connect the wrong voltage or you may cause permanent electrical damage to the attached device.

1. Install firmware version 3.0.1 (or later) on your SESPM1040-541-LT-xx switch. Note: The 24V Passive PoE Module is not compatible with firmware versions earlier than 3.0.1.
2. Ensure the switch is powered off before installing the 24V Passive PoE Port Module.
3. See the SESPM1040-541-LT-xx Install Guide for important Cautions and Warnings.
4. Unpack the kit and verify the contents prior to sending to the install site.
5. Install provided Thermal Pad over the gold squared area directly under the module on the PCB.
6. Insert gold fingers of the 24V Passive PoE Port Module into M.2 socket on the switch board.
7. Secure the 24V Passive PoE Port Module by inserting SEMS screw and tightening gently.
8. Connect an Ethernet cable to the RJ-45 jack to use for providing passive PoE over a 10/100/1000Base-T port. Passive PoE Port module use pins 4 and 5 for the positive PoE voltage polarity and pins 7 and 8 for the negative voltage polarity. Alternatively, insert an SFP module into the top SFP cage on the switch board to use as a 1000Base-X port (no passive PoE is provided over fiber). 24VDC power from the module is off by default to avoid sending power to connected devices not requiring power (always be aware of connected devices and their ability to accept power). Once enabled, power to the connected 24V device remains active during switch reboot. If the connected device is later removed, user should manually disable the port in the Web UI or CLI to prevent future devices from being connected and powered without consent.
9. Refer to the attached device documentation for important information such as safety and compliance, install requirements, package contents, hardware, mounting, LED and port descriptions, grounding powering, software installation and operation, and troubleshooting the attached device.

### PM-2P-24V-CP Installed View:



SESPM1040-541-LT-AC with Installed SESPM-2P-24V-CP 24V Passive PoE Port Module

## Troubleshooting

1. Ensure that firmware version 3.0.1 (or later) is installed on your SESPM1040-541-LT-xx switch. The 24V Passive PoE Module is not compatible with firmware versions earlier than 3.0.1. If you have downgraded from 3.0.1 to an earlier firmware version, you must also power cycle the switch to disable previously enabled passive PoE.
2. Make sure the switch is operating properly and that Passive PoE has been enabled through the web UI or CLI.
3. Ensure proper seating of the gold fingers of the 24V Passive PoE Module in the M.2 socket on switch board.
4. Make sure that the Ethernet cable is good (if using as a 10/100/1000Base-T port providing 24V passive PoE). Passive PoE Port module use pins 4 and 5 for the positive PoE voltage polarity and pins 7 and 8 for the negative voltage polarity.
5. Make sure the SFP and fiber cable are good (if using as a 1000Base-X port – no passive PoE provided over fiber).
6. Verify the attached powered device is receiving power from the 24V Passive PoE Module or is receiving data over the fiber connection. Refer to the switch documentation for important related information.
7. Record any operating details (LEDs flashing, etc.).
8. Contact Transition Networks Technical Support.

## Related Manuals

- SESPM1040-541-LT-xx Quick Start Guide, 33783
- SESPM1040-541-LT-xx Install Guide, 33772
- SESPM1040-541-LT-xx Operation Guide, 33773-33779
- Switch Manager Mobile App User Guide, 33789
- Release Notes (version specific)
- **For More Information:** A printed Quick Start Guide is shipped with each switch. For Transition Networks Drivers, Firmware, etc. go to the Product Support webpage (login required). For Transition Networks Manuals, Brochures, Data Sheets, etc. go to the Product Resources page (no login required).

## CLI Commands

Please allow approximately one minute for initialization after logging in before initiating commands. The show command is run from the base prompt (Exec mode). The Configuration commands are run from Config mode. Access for CLI commands is through telnet or console port. The Passive PoE Module can be managed by utilizing CLI commands through traditional CLI command entry or CLI commands within the Switch Manager Mobile App that is communicating with the 24V Passive PoE Module via the wireless BLE link.

### Passive PoE CLI Command Set

- show Poe passive status display the current PoE Passive operating status
- show Poe passive status display the current PoE Passive operating status
- poe passive enable Enable PoE Passive operation
- no poe passive enable Disable PoE Passive operation
- poe passive reset Reset PoE Passive status
- poe passive <cr> Enabling will apply power to the directly connected device. Any connected device not designed to receive 24V passive poe power may be destroyed.
- poe passive underload Enable Passive PoE Underload protection
- do show poe passive status Display the current PoE Passive operating status (from Config mode)

### Show Command

Initially Passive PoE is off:

```
sespm# show poe passive status
Status: Disabled
```

### Configuration Commands

#### Enabling Passive PoE Power

```
# configure terminal
(config)# poe passive enable
(config)# exit

# show poe passive status
Passive PoE Config:      Disabled
Passive PoE Overload State: Disabled
Passive PoE Status:
Passive PoE Underload Config: Disabled
Passive PoE Underload State: Disabled
Passive PoE Underload Status: Underload Protection is Disabled
Passive PoE Power:      0.000W
Passive PoE Device Power: 0.000W
Passive PoE Input Voltage: 0.000V
Total PSE Power Available: 0.000W
#
```

**Note:** No device is attached in this example so the power draw is that of the passive PoE module itself. In all scenarios, Passive PoE Attached Device Power is (Passive PoE Power \* 0.8) as the passive PoE module is 80% efficient. Passive PoE Attached Device Power does not imply that there is an attached device. Its value is just for reference.

#### Disabling Passive PoE Power

```

sespm# configure terminal
sespm(config)# no poe passive enable
sespm(config)# exit
sespm# show poe passive status
Status: Disabled

# configure terminal
(config)# no poe passive enable
(config)# exit
# show poe passive status
Passive PoE Config:          Disabled
Passive PoE Status:          Disabled
Passive PoE Overload Status: Disabled
Passive PoE Power:           0.000W
Passive PoE Device Power:    0.000W
Passive PoE Input Voltage:   0.000V
Total PSE Power Available:   0.000W
#

```

### Enabling Passive PoE Power with an Attached Device

**Note:** a confirmation message displays before enabling passive PoE power:

```

Passive PoE does not classify.
Enabling will apply power to directly connected device.
Any connected device not designed to receive power may be destroyed.
Are you sure you want to enable power?
To enable power, enter 'yes'
To cancel, enter 'no'

```

### To enable passive PoE power:

```

# show poe passive status
Passive PoE Config:          Disabled
Passive PoE Status:          Disabled
Passive PoE Overload Status: Disabled
Passive PoE Power:           0.000W
Passive PoE Device Power:    0.000W
Passive PoE Input Voltage:   0.000V
Total PSE Power Available:   0.000W
# configure terminal
(config)# poe passive enable

Passive PoE does not classify.
Enabling will apply power to directly connected device.
Any connected device not designed to receive power may be destroyed.
Are you sure you want to enable power?
To enable power, enter 'yes'
To cancel, enter 'no'
yes
Passive PoE Config has been enabled and power has been applied if not in overload.
(config)# do show poe passive status
Passive PoE Config:          Enabled
Passive PoE Overload State:   Disabled
Passive PoE Status:
Passive PoE Underload Config: Enabled
Passive PoE Underload State:  Disabled
Passive PoE Underload Status: Underload Protection is Enabled
Passive PoE Power:           0.000W
Passive PoE Device Power:    0.000W
Passive PoE Input Voltage:   0.000V
Total PSE Power Available:   0.000W
(config)#

```

### Messages:



- Passive PoE Config has been enabled and power has been applied if not in overload.
- Passive PoE Config has not been modified.
- Passive PoE Config has been disabled and power has been shut off.
- The overload state has been cleared – the current configuration will be applied.
- If Overload occurs on Passive PoE Port Module with an Attached Device
- If an overload occurs, the passive PoE module is shut off. The Poe passive reset command lets you acknowledge that the overload issue occurred and it has been resolved and the passive PoE power is ready to be activated again.

```
# show poe passive status
Status: Overload
# configure terminal
(config)# poe passive reset
(config)# do show poe passive status
Passive PoE Config:      Enabled
Passive PoE Overload State: Disabled
Passive PoE Status:
Passive PoE Underload Config: Enabled
Passive PoE Underload State: Disabled
Passive PoE Underload Status: Underload Protection is Enabled
Passive PoE Power:      0.000W
Passive PoE Device Power: 0.000W
Passive PoE Input Voltage: 0.000V
Total PSE Power Available: 0.000W#
(config)# poe passive enable
(config)# exit
# show poe passive status
Passive PoE Config:      Enabled
Passive PoE Overload State: Disabled
Passive PoE Status:
Passive PoE Underload Config: Enabled
Passive PoE Underload State: Disabled
Passive PoE Underload Status: Underload Protection is Enabled
Passive PoE Power:      0.000W
Passive PoE Device Power: 0.000W
Passive PoE Input Voltage: 0.000V
Total PSE Power Available: 0.000W
#
```

### PoE Underload Protection

With this function, if you enable underload protection ('poe passive underload') and then if the cable is unplugged, passive poe is shut off. When something is plugged back in, you use the reset command ('poe passive reset') to turn the power back on. Passive PoE itself also must be enabled ('poe passive'). Note that Passive PoE Underload Protection was added at Software Rev 3.0.2 and is not available in 3.0.1. Software Revs earlier than 3.0.1 cannot support any Passive PoE functionality.

You can also enable the port and underload before plugging anything in. Once a passive poe compatible device is plugged in, use the reset command to power on the port.

If someone were to remove the cable on the passive poe port while underload protection is enabled, the port should be disabled until a reset command is issued.

**Command: show passive poe status**

```
(config)# do show poe passive status
Passive PoE Config:      Enabled
Passive PoE Overload State: Disabled
Passive PoE Status:      Passive PoE is Enabled
Passive PoE Underload Config: Enabled
Passive PoE Underload State: Disabled
Passive PoE Underload Status: Underload Protection is Enabled
Passive PoE Power:        2.866W
Passive PoE Device Power: 2.636W
Passive PoE Input Voltage: 56.178V
Total PSE Power Available: 179.134W
```

The 'Passive PoE Underload Config' line is a configuration option that you can set with the 'poe passive underload' command. To enable:

```
(config)# poe passive underload
Passive PoE Underload protection has been enabled - after connecting device, use 'poe passive reset' to power port.
```

#### To disable:

```
(config)# no poe passive underload
Passive PoE Underload protection has been disabled - make sure attached device supports Passive PoE before enabling.
```

When the underload protection has triggered due to it being enabled while no device is present, use the reset command to turn the power back on:

```
(config)# poe passive reset
Overload state has been cleared - current configuration will be applied.
```

#### Examples:

```
# show poe passive status
Passive PoE Config:      Disabled
Passive PoE Overload State: Disabled
Passive PoE Status:      Passive PoE is Disabled
Passive PoE Underload Config: Disabled
Passive PoE Underload State: Disabled
Passive PoE Underload Status: Underload Protection is Disabled
Passive PoE Power:        0.000W
```



```
Passive PoE Device Power:      0.000W
Passive PoE Input Voltage:     0.000V
Total PSE Power Available:     0.000W
# configure terminal
(config)# poe passive underload
Passive PoE Underload protection has been enabled - after connecting device, use 'poe passive reset' to
port.
(config)# poe passive
```

Passive PoE does not classify.  
Enabling will apply power to directly connected device.  
Any connected device not designed to receive power may be destroyed.

Are you sure you want to enable power?  
To enable power, enter 'yes'  
To cancel, enter 'no'  
yes

Passive PoE Config has been enabled and power has been applied if not in overload.

```
(config)# do show poe passive status
Passive PoE Config:           Enabled
Passive PoE Overload State:    Disabled
Passive PoE Status:           Passive PoE is Enabled
Passive PoE Underload Config: Enabled
Passive PoE Underload State:   Disabled
Passive PoE Underload Status:  Underload Protection is Enabled
Passive PoE Power:             2.883W
Passive PoE Device Power:      2.652W
Passive PoE Input Voltage:     56.154V
Total PSE Power Available:     179.117W
```

```
(config)# ##unpluggeddevicehere
```

```
(config)# do show poe passive status
Passive PoE Config:           Enabled
Passive PoE Overload State:    Disabled
Passive PoE Status:           Passive PoE is Disabled
Passive PoE Underload Config: Enabled
Passive PoE Underload State:   Enabled
Passive PoE Underload Status:  Passive Poe is Disabled due to underload at 2012-01-03 15:03:56-0600
Passive PoE Power:             0.000W
Passive PoE Device Power:      0.000W
Passive PoE Input Voltage:     0.000V
Total PSE Power Available:     0.000W
```

```
(config)# ###plugged_device_back_in_here
```

```
(config)# ###note_that_device_is_off_due_to_underload
```

```
(config)# do show poe passive status
Passive PoE Config:           Enabled
Passive PoE Overload State:    Disabled
Passive PoE Status:           Passive PoE is Disabled
Passive PoE Underload Config: Enabled
Passive PoE Underload State:   Enabled
Passive PoE Underload Status:  Passive Poe is Disabled due to underload at 2012-01-03 15:03:56-0600
Passive PoE Power:             0.000W
Passive PoE Device Power:      0.000W
Passive PoE Input Voltage:     0.000V
Total PSE Power Available:     0.000W
```

```
(config)# ###reenable_device
```

```
(config)# poe passive reset
```

Overload state has been cleared - current configuration will be applied.

```
(config)# do show poe passive status
Passive PoE Config:           Enabled
Passive PoE Overload State:    Disabled
Passive PoE Status:           Passive PoE is Enabled
Passive PoE Underload Config: Enabled
Passive PoE Underload State:   Disabled
Passive PoE Underload Status:  Underload Protection is Enabled
Passive PoE Power:             2.541W
Passive PoE Device Power:      2.338W
Passive PoE Input Voltage:     56.202V
Total PSE Power Available:     179.459W
```

- **Command:** show Poe passive status
- **Description:** Display the current PoE Passive operating status (Enabled/Disabled/Overload and voltage and power). PoE is disabled (off) by default to avoid sending power to connected devices not requiring power.
- **Syntax:** show Poe passive status <cr>
- **Parameters:** None
- **Mode:** Exec mode

#### Example:

```
# show poe passive status
Passive PoE Config:          Disabled
Passive PoE Status:          Disabled
Passive PoE Overload Status: Disabled
Passive PoE Power:           0.000W
Passive PoE Device Power:    0.000W
Passive PoE Input Voltage:   0.000V
Total PSE Power Available:   0.000W
# configure terminal
(config)# poe ?
    passive    Passive PoE commands
    schedule   PoE schedule management

(config)# poe passive ?
    reset      Reset Passive PoE after power overload/underload
    underload  Enable Passive PoE Underload protection

(config)# poe passive enable

Passive PoE does not classify.
Enabling will apply power to directly connected device.
Any connected device not designed to receive power may be destroyed.

Are you sure you want to enable power?
To enable power, enter 'yes'
To cancel, enter 'no'
yes
Passive PoE Config has been enabled and power has been applied if not in overload.
(config)# do show poe passive status
Passive PoE Config:          Enabled
Passive PoE Status:          Enabled
Passive PoE Overload Status: Disabled
Passive PoE Power:           8.408W
Passive PoE Device Power:    6.727W
Passive PoE Input Voltage:   56.870V
Total PSE Power Available:   58.592W
(config)#
```

- **Command:** Poe passive enable
- **Description:** Enable PoE Passive operation; the default is “disabled”.
- **Syntax:** Poe passive enable <cr>
- **Parameters:** None
- **Mode:** Exec mode

#### Example:

```

(config)# poe passive enable

Passive PoE does not classify.
Enabling will apply power to directly connected device.
Any connected device not designed to receive power may be destroyed.

Are you sure you want to enable power?
To enable power, enter 'yes'
To cancel, enter 'no'
yes
Passive PoE Config has been enabled and power has been applied if not in overload.
(config)# do show poe passive status
Passive PoE Config:      Enabled
Passive PoE Status:      Enabled
Passive PoE Overload Status: Disabled
Passive PoE Power:       8.408W
Passive PoE Device Power: 6.727W
Passive PoE Input Voltage: 56.870V
Total PSE Power Available: 58.592W
(config)#

```

- **Command:** Poe passive underload
- **Description:** Enable Passive PoE Underload protection.
- **Syntax:** Poe passive
- **Parameters:**
- **Mode:** Config mode

#### Example:

```

(config)# poe passive underload
Passive PoE Underload protection has been enabled - after connecting device, use
'poe passive reset' to power port.
(config)#

```

**Messages:** Passive PoE Underload protection has been enabled – after connecting device, use 'poe passive reset' to power port.

- **Command:** no poe passive enable
- **Description:** Disable PoE Passive operation; the default is “disabled”.
- **Syntax:** no poe passive enable <cr> no poe passive underload <cr>
- **Parameters:** None
- **Mode:** Exec mode

#### Example:

```

(config)# no poe passive enable

Are you sure you want to disable power?
To disable power, enter 'yes'
To cancel, enter 'no'
no
Passive PoE Config has not been modified.
(config)#
(config)# no poe passive enable

Are you sure you want to disable power?
To disable power, enter 'yes'
To cancel, enter 'no'
yes
Passive PoE Config has has been disabled and power has been shutoff.
(config)# do show poe passive status
Passive PoE Config:          Disabled
Passive PoE Overload State:   Disabled
Passive PoE Status:
Passive PoE Underload Config: Disabled
Passive PoE Underload State:   Disabled
Passive PoE Underload Status: Underload Protection is Disabled
Passive PoE Power:           0.000W
Passive PoE Device Power:     0.000W
Passive PoE Input Voltage:    0.000V
Total PSE Power Available:    0.000W
(config)#

```

**Messages:** Passive PoE Underload protection has has been disabled – make sure attached device supports Passive PoE before enabling.

- **Command:** Poe passive reset
- **Description:** Reset PoE Passive status. If an overload occurs, the passive PoE module is shut off. The poe passive reset command lets you acknowledge that the overload issue occurred, that it has been resolved, and that passive PoE power is ready to be activated again.
- **Syntax:** poe passive reset <cr>
- **Parameters:** None
- **Mode:** Config mode

**Example:**

```

(config)# poe passive reset
(config)# poe passive reset
(config)# do show poe passive status
Passive PoE Config:          enabled
Passive PoE Status:          enabled
Passive PoE Overload Status: disabled
Passive PoE Underload Config: Disabled
Passive PoE Underload State:   Disabled
Passive PoE Underload Status: Underload Protection is Disabled
Passive PoE Power:           11.337W
Passive PoE Device Power:     9.069W
Passive PoE Input Voltage:    56.906V
Total PSE Power Available:    54.340W
(config)#

```

- **Messages:** Overload state has been cleared – current configuration will be applied.
- **Command:** do show poe passive status

- **Description:** Display the current PoE Passive operating status in Config mode. PoE is disabled (off) by default to avoid sending power to connected devices not requiring power.
- **Syntax:** do show poe passive status <cr>
- **Parameters:** None
- **Mode:** Config mode

**Example:**

```
(config)# do show poe passive status
Passive PoE Config:          Disabled
Passive PoE Overload State:  Disabled
Passive PoE Status:
Passive PoE Underload Config: Enabled
Passive PoE Underload State:  Disabled
Passive PoE Underload Status: Underload Protection is Enabled
Passive PoE Power:           0.000W
Passive PoE Device Power:     0.000W
Passive PoE Input Voltage:     0.000V
Total PSE Power Available:    0.000W
(config)#
```

- **Command:** show system
- **Description:** Update the existing 'show system' command to display the 24V Passive PoE Module as "Option Module: Installed" and the PC board version. If none is installed, displays "
- **Option Module:** Not installed".

**Example:**

```
# show system
Model Name:          SESPM1040-541-LT-AC
System Description:   Self-Enclosed Managed Hardened Gigabit Ethernet PoE++ Switch
Location:
Contact:
System Name:
System Date:          2012-01-01 15:00:37-06:00
System Uptime:        00h:55m:51s
Bootloader Revision:  1.2.0
Firmware Version:     3.0.3 20210514
Hardware Revision:    H
Serial number:        5544845
MAC Address:          00:C0:F2:6A:90:50
Memory:               Total=251608 KBytes, Free=196156 KBytes
BLE MAC Address:      D0:CF:5E:97:93:21
BLE State:             Enabled
BLE Connection:        Disconnected
NFC State:             Enabled
Digital IO Board:     Not installed
Option Module:         Not installed
PSU Temperature:      39.25C
CPU Temperature:      41.00C
#
```

**CLI Messages:**

- Passive PoE Module not present
- Syntax error: Illegal command line

## CLI Command Summary

Command	Description	Example
<b>show poe passive status</b>	Display the current PoE Passive operating status	Passive PoE Config:            enabled  Passive PoE Status:            enabled Passive PoE Overload Status:    disabled Passive PoE Power: 11.347W Passive PoE Device Power: 9.077W Passive PoE Input Voltage:    56.910V Total PSE Power Available:    55.653W
<b>poe passive enable</b>	Enable PoE Passive operation	sespm(config)# <b>poe passive enable</b>
<b>no poe passive enable</b>	Disable PoE Passive operation	sespm(config)# <b>no poe passive enable</b>
<b>poe passive reset</b>	Reset PoE Passive status	sespm(config)# <b>poe passive reset</b>
<b>do show poe passive status</b>	Display the current PoE Passive operating status (from Config mode)	sespm(config)# <b>do show poe passive status</b>  Status: Disabled  sespm(config)# <b>do show poe passive status</b>  Passive PoE Config:            enabled  Passive PoE Status:            enabled Passive PoE Overload Status:    disabled Passive PoE Power: 11.337W Passive PoE Device Power: 9.069W Passive PoE Input Voltage:    56.906V Total PSE Power Available:    54.340W
<b>poe passive underload</b>	Enable PoE Passive Underload (added at Software Rev 3.0.2)	(config)# <b>poe passive underload</b>  Passive PoE Underload protection has been enabled – after connecting device, use 'poe passive reset' to power port.
<b>no poe passive underload</b>	Disable PoE Passive Underload (added at Software Rev 3.0.2)	(config)# <b>no poe passive underload</b> Passive PoE Underload protection has been disabled – make sure attached device supports Passive PoE before enabling.

## Web User Interface

### PoE Management > 24V Passive PoE

SESPM1040-541-LT-xx software supports the 24V Passive PoE Module allowing port 6 to be used as a fiber port. Note that Passive PoE functionality was added at Software Rev 3.0.1.



1. From the SESPM-541-LT-xx System Information page, navigate to PoE Management > 24V Passive PoE.

SESPM1040-541-LT-PD

Switch

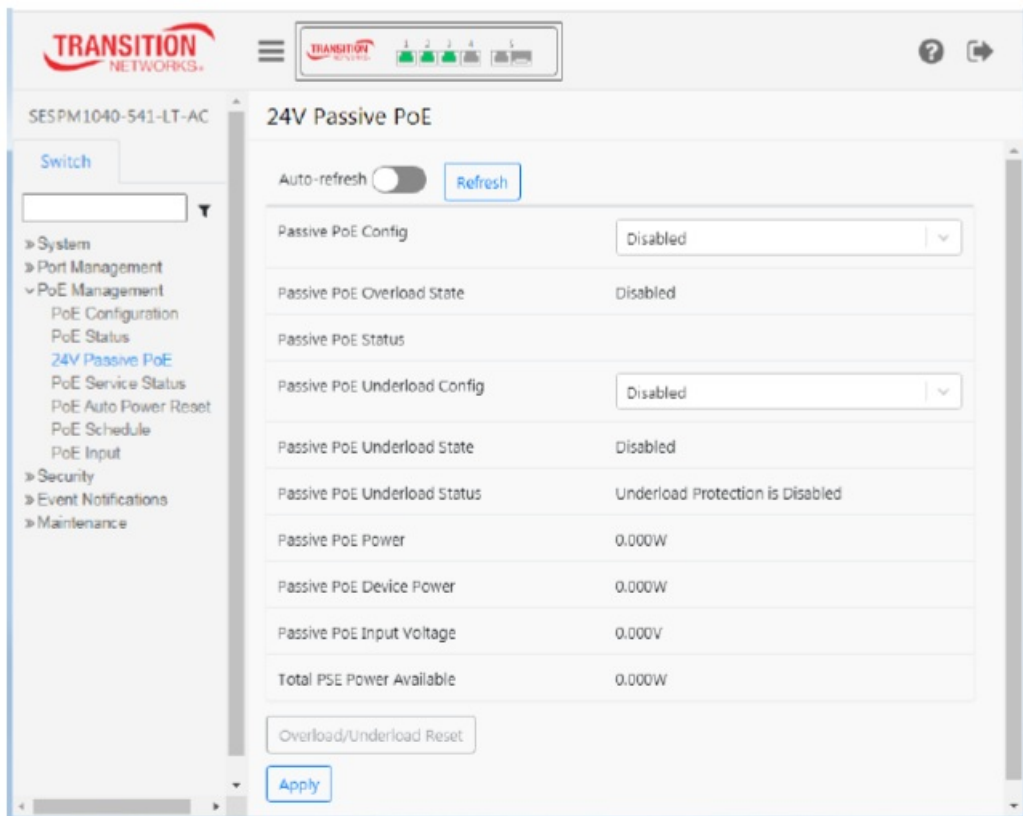
System Information

Model Name	SESPM1040-541-LT-PD
Serial Number	5536531
Description	Self-Enclosed Managed Hardened Gigabit Ethernet PoE++ Switch
Software Revision	3.0.1 20201029
Alternate Software Revision	nightly 202010272219 git HEAD(e2771e2144efe48bd5195b18b1866337c963de23) buildhost(trn-ion)
Boot loader Revision	1.2.0
Hardware Revision	H
MAC Address	00-C0-F2-6A-90-FE
System Contact	
System Location	
System Name	
System Date	2012-01-17 20:43:07-06:00
System Up Time	00:03:47.31

Apply Reset

The default 24V Passive PoE page displays.

2. At the default 24V Passive PoE page view the displayed parameters, confirm that the connected device can accept 24VDC power, then select Enabled and click the Apply button.



3. connected device accepts 24VDC power, otherwise, choose No and connect an appropriate device.

#### Parameter descriptions:

**Passive PoE Config:** At the dropdown select Enabled or Disabled. The default is Disabled.

**Passive PoE Overload State:** Displays the existing passive PoE overload status (i.e., Disabled or Enabled).

**Passive PoE Status:** The existing PoE status (enabled or disabled). The default is disabled. For example, if the you set " Passive PoE Config" to enabled, and it then overloads causing the 24V Passive PoE module to disable, " Passive PoE Status" will then display as Disabled and " Passive PoE Config" will display as Enabled.

**Passive PoE Underload Config:** At the dropdown set PoE Underload to Enabled or Disabled. The default is Disabled. **Passive PoE Underload State:** Displays the existing underload state. The default is Disabled.

**Passive PoE Underload Status:** Displays the existing underload status (e.g., Underload Protection is Disabled).

**Passive PoE Power:** Displays the existing passive PoE power (e.g., 0.000W or 0.150W).

**Passive PoE Device Power:** Displays the existing passive PoE device power (e.g., 0.000W or 0.126W).

**Passive PoE Input Voltage:** Displays the existing passive PoE voltage at input (e.g., 0.000V or 56.194V).

**Total PSE Power Available:** Displays the existing available PSE power (e.g., 0.000W or 66.100W).

#### Buttons:

**Auto-refresh:** Click to automatically refresh the webpage every three seconds.

**Refresh:** Click to manually refresh the webpage immediately.

**Overload/Underload Reset:** Click to reset an Underload or Overload condition (greyed out when the "Passive PoE Overload /Underload Status" field shows "Disabled").

**Apply:** Click to save webpage parameter changes to the running-config file.

#### Web UI Messages:

**Successfully saved!**

**Nothing was changed**

Are you sure you want to enable power? confirmation dialog on the 24V Passive PoE page.

Are you sure you want to disable power? confirmation dialog on the 24V Passive PoE page.

#### Buttons:

**Auto-refresh:** Click to automatically refresh the webpage every three seconds.

**Refresh:** Click to manually refresh the webpage immediately.

**Overload/Underload Reset:** Click to reset an Underload or Overload condition (greyed out when the "Passive PoE

Overload /Underload Status” field shows “Disabled”).

**Apply:** Click to save webpage parameter changes to the running-config file.

**Web UI Messages:**

**Successfully saved!**

**Nothing was changed**

Are you sure you want to enable power? confirmation dialog on the 24V Passive PoE page.

Are you sure you want to disable power? confirmation dialog on the 24V Passive PoE page.

**Example 1:**

The screenshot displays the Transition Networks web interface for the device SESPM1040-541-LT-AC. The main section is titled "24V Passive PoE". At the top of this section, there is an "Auto-refresh" toggle switch (currently off) and a "Refresh" button. Below this, the configuration is shown in a table-like format:

Passive PoE Config	Enabled
Passive PoE Overload State	Disabled
Passive PoE Status	
Passive PoE Underload Config	Enabled
Passive PoE Underload State	Disabled
Passive PoE Underload Status	Underload Protection is Enabled
Passive PoE Power	0.000W
Passive PoE Device Power	0.000W
Passive PoE Input Voltage	0.000V
Total PSE Power Available	0.000W

Below the table, there is an "Overload/Underload Reset" button and an "Apply" button. The left sidebar contains a navigation menu with the following items: System, Port Management, PoE Management (expanded), PoE Configuration, PoE Status, 24V Passive PoE (selected), PoE Service Status, PoE Auto Power Reset, PoE Schedule, PoE Input, Security, Event Notifications, and Maintenance.

Successfully saved!

SESPM1040-541-LT-AC

24V Passive PoE

Switch

Auto-refresh ☐ Refresh

» System

» Port Management

▼ PoE Management

PoE Configuration

PoE Status

24V Passive PoE

PoE Service Status

PoE Auto Power Reset

PoE Schedule

PoE Input

» Security

» Event Notifications

» Maintenance

Passive PoE Config

Enabled

Passive PoE Overload State

Disabled

Passive PoE Status

Passive PoE Underload Config

Disabled

Passive PoE Underload State

Disabled

Passive PoE Underload Status

Underload Protection is Disabled

Passive PoE Power

0.000W

Passive PoE Device Power

0.000W

Passive PoE Input Voltage

0.000V

Total PSE Power Available

0.000W

Overload/Underload Reset

Apply

## Record of Revisions

Rev	Date	Description
A	1/22/21	Initial release for SESPM1040-541-LT-PD Software Rev 3.0.1 and Hardware Rev H.  Add config option to disable power when the power draw drops below a level calculated to be just above 'no device attached' draw. Software Rev 3.0.2: add passive poe underload protection in CLI.
B	6/7/21	Update for SW Rev. 3.0.3; add passive poe underload config.

## Contact Us

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The SESPM-2P-24V-CP is a Passive PoE Port Module to provide 24VDC power over a 10/100/1000Base-T port. Alternatively, it could also be used to activate a second 1000Base-X combo port (no passive PoE is provided over fiber). Refer to the switch documentation for important related information.

**Note:** The SESPM-2P-24V-CP is compatible with firmware versions 3.0.1 and later. It cannot be used with firmware versions earlier than 3.0.1.

**Note:** On the SESPM1040-541-LT-PD version, the included combo port RJ-45 is used for receiving PoE input

power to the switch; therefore, the included combo port on the -PD version is not available unless the switch is being DC powered over copper cable along with parallel fiber (“hybrid” or “composite cable”) instead of PoE. The included combo port is available on both the -AC and -DC powered versions of the switch. Caution: The optional SESPM-2P-24V-CP provides secondary surge protection, but not primary or cross power protection. So if using this module to connect to items outside the switch enclosure, users must provide the primary or cross power protection.

Documents / Resources



**[TRANSITION NETWORKS SESPM-2P-24V-CP Passive PoE Port Module](#)** [pdf] Installation Guide

SESPM-2P-24V-CP Passive PoE Port Module, SESPM-2P-24V-CP, Passive PoE Port Module, PoE Port Module, Port Module, Module

References

- [🌐 Intelligent IoT Solutions - Connect, Compute, Comprehend, Control](#)
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