

# Template:Networking tswos manual ports

The information in this page is updated in accordance with firmware version .



## Contents

- [1 Summary](#)
- [2 General](#)
- [3 Port Settings](#)
  - [3.1 Port Settings](#)
  - [3.2 Port Status](#)
- [4 Port Mirroring](#)
- [5 Loopback Detection](#)
  - [5.1 Loopback Detection](#)
  - [5.2 Port Tracking](#)
- [6 Port Security](#)
  - [6.1 General](#)
    - [6.1.1 Port Settings](#)
    - [6.1.2 Port Status](#)
  - [6.2 RADIUS](#)
    - [6.2.1 Radius Configuration](#)

## Summary

The **Ports** page provides information related to the status of the device's physical ports, as well as the ability to edit port settings, security, loopback detection.

## General

In this section you can enable **Jumbo frames** and **LLDP frame filter** services.



Field	Value	Description
Jumbo frames	off   on; default: <b>on</b>	Allow ethernet frame with a payload greater than the standard maximum transmission unit (MTU) of 1500 bytes. This may improve network performance by making data transmissions more efficient.
LLDP frame filter	off   on; default: <b>off</b>	Enable to stop the forwarding of LLDP frames.
IGMP snooping	off   on; default: <b>off</b>	Enables IGMP snooping.
Multicast querier	off   on; default: <b>off</b>	Enables multicast querier.

# Port Settings

This section displays information about the status of the device's ports with the ability to configure port settings.

## Port Settings

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The figure below is an example of the **All Ports** window, color indicates port speed and status:

[[File:Networking\_tswos\_manual\_ports\_ports\_settings\_port\_settings\_{{poe}}.png|border|class=tl-t-border]]

To change port settings select port and press `edit (number of ports) ports` button:

[[File:Networking\_tswos\_manual\_ports\_ports\_settings\_port\_settings\_edit\_{{poe}}.png|border|class=tl-t-border]]

You will be redirected to `Port settings`. From here you can enable/disable ports or change settings:

[[File:Networking\_tswos\_manual\_ports\_ports\_settings\_port\_settings\_settings\_{{poe}}.png|border|class=tl-t-border]]

Field	Value	Description
Enable	off   on; default: <b>on</b>	Toggle port on or off.
EEE	off   on; default: <b>on</b>	Enable Energy-Efficient Ethernet.
Isolate port	off   on; default: <b>off</b>	When enabled port will be isolated from other isolated ports. Traffic between isolated ports will dropped. Traffic between isolated and normal ports will be sent as normal.
Link speed	Auto   <b>10Mbps (E)</b>   <b>100Mbps (FE)</b>   <b>1000Mbps (GbE)</b> ; default: <b>Auto</b>	A measure of how fast ports are able to transmit and receive data.
<b>Duplex</b>	Full   Half; default:	Advertises preferred duplex mode and speed for negotiation with other devices.

## Port Status

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This section displays port status information. There is also an option to select, enable ports, enable/disable PoE, EEE and Isolation options:

[[File:Networking\_tswos\_manual\_ports\_ports\_settings\_port\_status\_{{poe}}.png|border|class=tl-t-border]]

Field Name	Description
Port	Port ID.
Enabled	Enable/Disable port.
Status	Port status.
Speed	Port link speed. <ul style="list-style-type: none"><li>• Possible speeds:</li><li>• GbE: 1000Mbps</li><li>• FE: 100Mbps</li><li>• E: 10Mbps</li></ul>

PoE (W)	PoE port power usage in watts.
EEE	Enable/Disable Energy-Efficient Ethernet.
Isolation	When enabled port will be isolated from other isolated ports. Traffic between isolated and normal ports will be sent as normal.
TX sum	Total upload.
RX sum	Total download.
TX rate	Upload speed.
RX rate	Download speed.

## Port Mirroring

Port Mirroring is a service that mirrors incoming and outgoing packets on one Ethernet port (Source Port) to another (Monitoring Port).

To change port mirroring settings select port and press `Edit` button:



You will be redirected to `Port mirroring settings`, from here you can select ingress and egress ports:



Field	Value	Description
Enable	off   on; default: <b>off</b>	The port which will mirror the packets.
Ingress mirroring port list	port; default: <b>none</b>	Specify which port incoming traffic is mirrored.
Egress mirroring port list	port; default: <b>none</b>	Specify which port outgoing traffic is mirrored.

## Loopback Detection

### Loopback Detection

A port-based loopback detection service that using its own distinctive packets, seeks to identify and break a network loop by shutting down troublesome ports.





Field	Value	Description
Enable	off   on; default: <b>off</b>	Enable loopback detection.
Broadcast interval	integer [1..10000]; default: <b>none</b>	Send detection packets in an given interval from 1 to 10000 seconds.
Auto-recovery interval	integer [60..10000]; default: <b>none</b>	Restores disabled ports in an given interval from 60 to 10000 seconds.

### Port Tracking

Tracks specific port status. **Notes:**

- STP:** STP must be disabled in Network -> Spanning Tree and loopback detection must be enabled for the service to function.

6. **Port unblocking:** When a loop occurs before a broadcast, it won't be recognized until the broadcast transmits its own packets, since the service only listens for packets with its own particular protocol.

 To change port tracking setting press on port and you will be redirected to `Port tracking configuration` : 

Field	Value	Description
Enable	off   on; default: <b>on</b>	Enable port tracking.
Recovery mode	Auto   Manual; default: <b>Auto</b>	Manages port unblocking type. Possible modes: <ul style="list-style-type: none"> <li>• Manual: Port is blocked until manual unblock.</li> <li>• Auto: Unblocked automatically depending on the global Auto-recovery interval value.</li> </ul>

## Port Security

This section displays information about the status of the device's ports with the ability to configure port security settings.

### General

#### Port Settings

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The figure below is an example of the **Port Settings** window, color indicates port speed and status:

[[File:Networking\_tswos\_manual\_ports\_port\_security\_port\_settings\_{{poe}}.png|border|class=tl-border]]

To change port security settings select port and press `edit (number of ports) ports` button:

[[File:Networking\_tswos\_manual\_ports\_port\_security\_port\_settings\_edit\_{{poe}}.png|border|class=tl-border]]

You will be redirected to `Port security settings`. From here you can enable/disable ports or change security settings:



Field	Value	Description
Enable	off   on; default: <b>off</b>	Enable security for port.
Radius sever	radius server ID; default: <b>example</b>	Radius server ID.
Radius unreachable action	Accept   Reject; default: <b>Accept</b>	"Accept" gives anyone access to the port when the radius server is unreachable. "Reject" only unblocks the port if radius server explicitly authorizes it.
Fallback VLAN	Disabled   VLAN; default: <b>Disabled</b>	Indicates fallback VLAN
Reject VLAN	Disabled   VLAN; default: <b>Disabled</b>	Indicates reject VLAN

Accept VLAN      Radius assigned | vlan1(ID: 1);  
default: **vlan1(ID: 1)**      Indicates accept VLAN

## Port Status

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This section displays port status information. There is also an option to select, enable ports security, choose RADIUS server and change RADIUS unreachable action:



Field Name	Description
Port	Port ID.
Enabled	Enables port security on this port.
Status	Port status.
Radius server	Authenticates and authorizes devices trying to connect to this port.
Radius unreachable action	"Accept" gives anyone access to the port when the radius server is unreachable. "Reject" only unblocks the port if radius server explicitly authorizes it.

## RADIUS

The **RADIUS** page is used to create and manage radius servers:



Field Name	Description
ID	RADIUS server ID.
Address (IPv4)	RADIUS server IP.
Authentication port	RADIUS server authentication port.
Secret	RADIUS server secret.

## Radius Configuration

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The RADIUS configuration window should look similar to this:



[[Category:{{{name}}} Network section]]

Field	Value	Description
IP address	ip; default: <b>0.0.0.0</b>	RADIUS server IP.
Authentication port	integer [1.. 65535]; default: <b>1812</b>	RADIUS server authentication port.
Secret	string; default: -	RADIUS server secret.
Test connectivity	-(interactive) button	Test connectivity to RADIUS server.
Test user credentials	-(interactive) button	Test credentials to RADIUS server.
Enable backup RADIUS server	off   on; default: <b>off</b>	Enable backup RADIUS server.
<b>IP address</b>	ip; default: <b>none</b>	Backup RADIUS server IP.
<b>Authentication port</b>	integer [1.. 65535]; default: <b>none</b>	Backup RADIUS server authentication port.
<b>Secret</b>	string; default: -	Backup RADIUS server secret.

Test connectivity

-(interactive) button

Test connectivity to backup RADIUS server.

Test user credentials

-(interactive) button

Test credentials to backup RADIUS server.