

Port Additional Characteristics Configuration Guide

Model: S5500-48T8SP

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Chapter 1 Interface Configuration

1.1 Configuring the Ethernet Interface

The switch supports the 10Mbps/100Mbps Ethernet interfaces. See the following content for detailed configuration. Among the configuration, the first step is mandatory while others are optional.

1.1.1 Configuring Flow Control for the Port

You can control the flow rate on the incoming and outgoing ports through configuration. Run the following commands in privileged mode to limit the flow rate of the port.

Each band is defaulted as 128 kbps.

| Command | Purpose |
|---|---|
| configure | Enters the global configuration mode. |
| interface f1/0 | Enters the to-be-configured port. |
| [no] switchport rate-limit band { ingress egress} | Configures the flow rate limits for the port. The parameter band represents the to-be-limited flow rate. The parameter ingress means the function works at the incoming port. The parameter egress means the function works at the outgoing port. |
| exit | Exits the global configuration mode. |
| exit | Returns the EXEC mode. |

1.1.2 Configuring the Rate Unit for the Port

Run the following commands to modify the rate unit of the flow on a port. The rate unit can be one of these values: 16K, 64K, 128K, 1M, 10M and 40M.

| Command | Purpose |
|-----------------------------|---------------------------------------|
| Configure | Enters the global configuration mode. |
| [no] rate-unit count | Configures the rate unit for a port. |
| exit | Returns the EXEC mode. |

1.1.3 Configuring the Storm Control on the Port

The ports of the switch may receive the attack by the continuous abnormal unicast (MAC address lookup failing), multicast or broadcast message. In this case, the attacked ports or the whole switch may break down. The storm control mechanism of the port is therefore generated.

| Command | Purpose |
|--|--|
| storm-control {broadcast multicast unicast} threshold count | Performs the storm control to the broadcast/multicast/unicast message. |
| no storm-control {broadcast multicast unicast} threshold | Cancels the storm control. |

Chapter 2 Secure Port Configuration

2.1 Overview

You can control the access function of the secure port, enabling the port to run in a certain range according to your configuration. If you enable the security function of a port through configuring the number of secure MAC addresses for the port. If the number of secure MAC addresses exceeds the upper limitation and MAC addresses are insecure, secure port violation occurs. You should take actions according to different violation modes.

The secure port has the following functions:

- Configuring the number of secure MAC addresses
- Configuring static secure MAC addresses
If the secure port has no static secure MAC address or the number of static secure MAC addresses is smaller than that of secure MAC addresses, the port will learn dynamic MAC addresses.
- Dropping violated packets when secure port violation occurs

The section describes how to configure the secure port for the switch.

2.2 Configuration Task of the Secure Port

- Configuring Secure Port Mode
- Configuring the Static MAC Address of the Secure Port

2.3 Configuring the Secure Port

2.3.1 Configuring the Secure Port Mode

There are two static secure port modes: **accept** and **reject**. If it is the **accept** mode, only the flow whose source address is same to the local MAC address can be received by the port for communication. If it is the **reject** mode, only the flow whose source address is different to the local MAC address can be received by the port.

Run the following commands in EXEC mode to enable or disable the secure port function:

| Command | Purpose |
|-----------------------|---------------------------------------|
| configure | Enters the global configuration mode. |
| interface g0/1 | Enters the to-be-configured port. |

| | |
|--|---|
| [no] switchport port-security mode static {accept reject} | Configures the secure port mode. |
| exit | Goes back to the global configuration mode. |
| exit | Goes back to the EXEC mode. |
| write | Saves the configuration. |

2.3.2 Configuring the Static MAC Address of the Secure Port

After you configure the static MAC address of the secure port, In **accept** mode, the flow whose source address is same to the local MAC address can be received by the port for communication. In **reject** mode, the flow whose source address is different to the local MAC address can be received by the port.

Run the following commands in EXEC mode to configure the static MAC address of the secure port:

| Command | Purpose |
|---|--|
| configure | Enters the global configuration mode. |
| interface g0/1 | Enters the to-be-configured port. |
| [no] switchport port-security static mac-address <i>mac-addr</i> | Adds or deletes the static MAC address of the secure port. • <i>mac-addr</i> is the configured MAC address. |
| exit | Goes back to the global configuration mode. |
| exit | Goes back to the EXEC mode. |
| write | Saves the configuration. |



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