

CLI Reference Guide

(GTP-5271)



V1.0

Digital Data Communications GmbH.

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CLI Reference Guide

GEP-5271

52-Port L3 Lite Managed Gigabit PoE Switch,
4 x 10GbE SFP+, 48 PoE Outputs, 400W

How to Use This Guide

This guide includes detailed information on the switch software, including how to operate and use the management functions of the switch. To deploy this switch effectively and ensure trouble-free operation, you should first read the relevant sections in this guide so that you are familiar with all of its software features.

Who Should Read This Guide? This guide is for network administrators who are responsible for operating and maintaining network equipment. The guide assumes a basic working knowledge of LANs (Local Area Networks), the Internet Protocol (IP), and Simple Network Management Protocol (SNMP).

How This Guide is Organized This guide describes the switch's command line interface (CLI). For more detailed information on the switch's key features or information about the web browser management interface refer to the *Web Management Guide*.

The guide includes these sections:

- ◆ Section I “[Getting Started](#)” – Includes information on initial configuration.
- ◆ Section II “[Command Line Interface](#)” – Includes all management options available through the CLI.
- ◆ Section III “[Appendices](#)” – Includes information on troubleshooting switch management access.

Related Documentation This guide focuses on switch software configuration through the CLI.

For information on how to manage the switch through the Web management interface, see the following guide:

Web Management Guide

For information on how to install the switch, see the following guide:

Quick Start Guide

For all safety information and regulatory statements, see the following documents:

Quick Start Guide
Safety and Regulatory Information

Conventions The following conventions are used throughout this guide to show information:



Note: Emphasizes important information or calls your attention to related features or instructions.



Caution: Alerts you to a potential hazard that could cause loss of data, or damage the system or equipment.

Revision History This section summarizes the changes in each revision of this guide.

<i>Revision</i>	<i>Date</i>	<i>Change Description</i>
GTP-5271d 18.12.27	12/2018	Initial release

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1. Statistics configuration command

1.1 show statistics interface ethernet

Command function :

show statistics interface ethernet *port-id*
 Command to view all or single port statistics

Command format :

show statistics interface ethernet 0/0/1
show statistics interface

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.2 clear interface

Command function :

clear interface [ethernet *port-id*]
 command to clear all or single port statistics

Command format :

clear interface
clear interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.3 clear cpu-statistics

Command function :

clear cpu-statistics
command to clear CPU port statistics

Command format :

clear cpu-statistics

Parameter description :

None

1.4 clear cpu-classification

Command function :

show cpu-statistics [interface ethernet *port-id*]
command to view CPU port classification statistics

Command format :

show cpu-statistics
show cpu-statistics interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.5 port-rate-statistics interval

Command function :

(no)port-rate-statistics interval *value*
Command to configure or delete rate statistics interval. The default value is 5 minutes.

Command format :

port-rate-statistics interval 1
no port-rate-statistics interval

Parameter description :

Parameter	Parameter description	Value
value	Statistical interval	1-5

1.6 show statistics interface brief**Command function :**

show statistics interface brief
command to view all port statistics

Command format :

show statistics interface

Parameter description :

None

1.7 show statistics dynamic**Command function :**

show statistics dynamic [*interface|eth-trunk*]
Command to view all port real-time statistics

Command format :

show statistics dynamic interface
show statistics dynamic eth-trunk

Parameter description :

None

1.8 show utilization**Command function :**

show utilization [*interface|eth-trunk*]
command to see real-time utilization of all ports

Command format :

show utilization interface
show utilization eth-trunk

Parameter description :
None

1.9 show interface

Command function :
show interface [ethernet *port-id*]
Command to view port information

Command format :
show interface
show interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.10 show cpu-utilization

Command function :
show cpu-utilization
Command to view switch CPU utilization

Command format :
show cpu-utilization

Parameter description :
None

1.11 show cpu-statistic

Command function :
show cpu-statistic [ethernet *port-id*]
Command to view CPU port statistics

Command format :
show cpu-statistic
show cpu-statistic ethernet 0/0/1

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.12 show cpu-classification**Command function :**

show cpu-statistics [ethernet *port-id*]
 Command to view CPU port classification statistics

Command format :

show cpu-statistics
show cpu-statistics ethernet 0/0/1

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

1.13 show statistics eth-trunk**Command function :**

show statistics eth-trunk id
 Command to view eth-trunk port statistics

Command format :

show statistics eth-trunk 1

Parameter description :

Parameter	Parameter description	Value
id	Aggregation group id	1-31

2.Port loopback detection configuration command

2.1 loopback

Command function :

Loopback [*internal|external*]

The command executes inner loop or loop detection. It can be executed on a single port or globally.

Command format :

loopback internal

loopback internal

Parameter description :

Parameter	Parameter description	Value
internal	internal detection	None
external	external detection	None

2.2 loopback-detection action

Command function :

loopback-detection action [discarding | shutdown]

command to configure the loop processing mode

Command format :

show vct auto-run shutdown

Parameter description :

Parameter	Parameter description	Value
discarding	Set the loopback port to discarding state (default mode)	None
shutdown	Disable the loopback port	None

2.3 loopback-detection interface

Command function :

(no)loopback-detection interface [ethernet *port-id*]

Command to configure or delete the loop processing port

Command format :

```
loopback-detection interface ethernet 0/0/1
```

Parameter description :

Parameter	Parameter description	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

2.4 loopback-detection interval-time**Command function :**

```
loopback-detection interval-time time
command to configure the loop processing interval
```

Command format :

```
loopback-detection interval-time 5
```

Parameter description :

Parameter	Parameter description	Value
time	Interval (unit: seconds, default: 5 seconds)	5-300

2.5 loopback-detection recover-time**Command function :**

```
loopback-detection recover-time time
Command configure loop processing auto recovery time
```

Command format :

```
loopback-detection recover-time 5
```

Parameter description :

Parameter	Parameter description	Value
time	Recovery time(unit: seconds, default: 20 seconds, 0 means manual recovery)	0-600

2.6 show loopback-detection

Command function :

show loopback-detection [ethernet *port-id*]

Command configure loop processing auto recovery time

Command format :

show loopback-detection ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

3.VCT detection configuration command

3.1 vct run

Command function :

vct [*run* | *auto-run*]

Command to perform vct detection under the global or port

Command format :

vct run

vct auto-run

Parameter description :

Parameter	Parameter description	Value
run	Manual detection	None
auto-run	Automatic detection	None

3.2 show vct auto-run

Command function :

show vct auto-run

Command to view the configuration of automatic detection of information

Command format :

show vct auto-run

Parameter description :

None

4.Port configuration commands

4.1 interface ethernet

Command function :

interface ethernet *port-id*

command to enter port configuration mode

Command format :

interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

4.2 duplex

Command function :

(no)duplex [*auto* | *full* | *half*]

The command is used to configure or delete the port duplex mode in the port mode. The default is auto.

Command format :

duplex auto

no duplex

Parameter description :

Parameter	Parameter description :	Value
auto	Auto-negotiation	None
full	Full duplex	None
half	Half duplex	None

4.3 speed

Command function :

(no)speed [*100auto* | *1000auto* | *1000*]*auto*]

The command is used to configure or delete the port rate in port mode. The default is auto

Command format :

speed 1000auto

no speed

Parameter description :

Parameter	Parameter description :	Value
100auto	100M auto negotiation	None
1000auto	1000M auto negotiation	None
1000	1000M	None
auto	Auto negotiation	None

4.4 priority

Command function :

(no)priority *value*

Command to add or delete port priority in port mode

Command format :

(no)priority 1

Parameter description :

Parameter	Parameter description :	Value
value	Priority	0-7

4.5 shutdown

Command function :

(no)shutdown

The command is used to switch ports in port mode

Command format :

(no)shutdown

Parameter description :

None

4.6 description

Command function :

(no)description *string*

Command to add or delete interface description information in port mode

Command format :

(no)description vlan1

Parameter description :

Parameter	Parameter description :	Value
string	Description	Except ? , any character other than the number ,spaces need double quotes

4.7 switchport

Command function :

(no) switchport [*ethernet*]*[all]*

Command to add or delete ports in vlan mode

Command format :**(no) switchport ethernet 0/0/1****Parameter description :**

Parameter	Parameter description :	Value
ethernet	Port id	Numeric string, case-insensitive, space-free, length range 5-6. The port range is equal to the switch physical port
all	All ports	None

4.8 ingress filtering

Command function :**(no) ingress filtering**

Command to add or delete port packet filtering in port mode

Command format :**(no) ingress filtering****Parameter description :**

None

4.9 port-control mode

Command function :**(no) port-control mode [master|slave]**

Command to add or delete port rate control mode in port mode

Command format :**port-control mode master****no port-control mode****Parameter description :**

Parameter	Parameter description :	Value
-----------	-------------------------	-------

master	Master port	None
slave	Slave port	None

4.10 switchport pvid

Command function :

(no) switchport pvid *vlan-id*

Command to add or delete port pvid in port mode

Command format :

(no) switchport pvid 1

Parameter description :

Parameter	Parameter description :	Value
vlan-id	vlan id	1-4094

4.11 ingress acceptable-frame

Command function :

(no)ingress acceptable-frame [*tagged|all*]

Command to add or delete the port receive frame type in port mode

Command format :

(no)ingress acceptable-frame tagged

Parameter description :

Parameter	Parameter description :	Value
tagged	Only receive tagged packets	None
all	All message are received	None

4.12 switchport trunk allowed vlan

Command function :

(no) switchport trunk allowed vlan [*vlan-list|all*]

Command to add or delete the vlan under the trunk port in port mode

Command format :

(no) switchport trunk allowed vlan 1

Parameter description :

Parameter	Parameter description :	Value
-----------	-------------------------	-------

vlan-list	VLAN id	Numeric string, case insensitive, space not supported, length range 1-128. String range 1-4094
all	All configured vlan	None

4.13 switchport hybrid untagged vlan

Command function :

(no)switchport hybrid untagged vlan [*vlan-list*]{*all*}

Command to add or delete the vlan of the hybrid untagged port in port mode

Command format :

(no)switchport hybrid untagged vlan 1

Parameter description :

Parameter	Parameter description :	Value
vlan-list	VLAN id	Numeric string, case insensitive, space not supported, length range 1-128. String range 1-4094
all	All configured vlan	None

4.14 switchport hybrid tagged vlan

Command function :

(no)switchport hybrid tagged vlan [*vlan-list*]{*all*}

Command to add or delete the VLAN under the hybrid tagged port in port mode

Command format :

(no)switchport hybrid tagged vlan 1

Parameter description :

Parameter	Parameter description :	Value
vlan-list	VLAN id	Numeric string, case insensitive, space not supported, length range 1-128. String range 1-4094
all	All configured vlan	None

4.15 switchport link-type

Command function :

(no) switchport link-type [access | hybrid | trunk]

Command to change the port link type

Command format :

(no)switchport link-type access

Parameter description :

Parameter	Parameter description :	Value
access	Can configure a vlan	None
hybrid	Multiple vlan can be configured	None
trunk	Multiple vlans can be configured	None

4.16 show interface ethernet

Command function :

show interface [ethernet port-id]

command to view port information

Command format :

show interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

4.17 show interface brief ethernet

Command function :

show interface brief ethernet port-id

command to view port brief information

Command format :

show interface brief ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

4.18 show description ethernet

Command function :

show description ethernet *port-id*

The command is used to view single port description information

show description

The command is used to view all port description information of the switch

Command format :

show description ethernet 0/0/1

show description

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

4.19 show ingress ethernet

Command function :

show ingress ethernet *port-id*

The command is used to view the port receive frame type and filter switch status.

show ingress

The command is used to view all port receive frame types

Command format :

show ingress ethernet 0/0/1

show ingress

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

4.20 show port-control mode

Command function :

show port-control mode

Command to view all port configuration modes

Command format :

show port-control mode

Parameter description :

None

5.DDM detection

5.1 show sfp

Command function :**show sfp** [ethernet *port-id*]

Commands to view optical module device information

Command format :**show sfp ethernet 0/1/1****Parameter description :**

Parameter	Parameter description :	Value
port-id	Fiber interface port number	0/1/1-0/1/4

6.Flow control

6.1 flow-control

Command function :**(no)flow-control**

Command to switch flow control function in port mode

Command format :**flow-control****no flow-control****Parameter description :**

None

6.2 show flow-control

Command function :**Show flow-control interface** [ethernet *port-id*]

Command to view the port flow control configuration

Command format :**Show flow-control interface**

Show flow-control interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

7.Managing IP restricted configuration commands

7.1 login-access-list

Command function :

Configure the network addresses that the protocols allow to access

Command format :

login-access-list <snmp|ssh|telnet|web> <net> <wildcard>

no login-access-list <all|snmp|ssh|telnet|web> <net> <wildcard>

Parameter Declaration

Parameter	Parameter Declaration	Values
net	Access network	
wildcard	Network inverse mask	

7.2 login-access-list telnet-limit

Command function :

Configure Telnet to allow access to numbers

Command format :

login-access-list telnet-limit <num>

no login-access-list telnet-limit

Parameter Declaration

Parameter	Parameter	Values
-----------	-----------	--------

	Declaration	
num		0-5

7.3 show login-access-list

Command function :

View the restricted state of the run

Command format :

show login-access-list

Parameter Declaration

/

8.Managing timeout configuration command

8.1 timeout

Command function :

Configure access timeout in privileged mode

Command format :

timeout <num>

no timeout

Parameter Declaration

Parameter	Parameter Declaration	Values
num		1-480 min

9.SSH configuration command

9.1 ssh

Command function :

Functional switch

Command format :

ssh
no ssh

Parameter Declaration

/

9.2 ssh limit

Command function :

Configuring SSH user number constraints

Command format :

ssh limit *<num>*
no ssh limit

Parameter Declaration

Parameter	Parameter Declaration	Values
num		0-5

9.3 stop vty

Command function :

Mandatory user downline in privileged mode

Command format :

stop vty *<vty-list|all>*

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All users	
vty-list	Vty List users	

9.4 crypto key zeroize rsa

Command function :

Privileged pattern deleting key

Command format :

crypto key zeroize rsa

Parameter Declaration

/

9.5 crypto key refresh

Command function :

Privileged mode activation key

Command format :

crypto key refresh

Parameter Declaration

/

9.6 crypto key generate rsa

Command function :

The privileged mode configures the default key

Command format :

crypto key generate rsa

Parameter Declaration

/

9.7 load keyfile

Command function :

Privileged mode import key

Command format :

load keyfile <private|public> <ftp|tftp> <inet|inet6> <address> <filename>
<ftp-username> <ftp-pass>

Parameter Declaration

Parameter	Parameter Declaration	Values
private	private key	
public	public key	
inet	ipv4 server address	
inet6	ipv6 server address	
address	address	
filename	file name	
ftp-username	Username used in FTP	
ftp-pass	Password used in FTP	

9.8 upload keyfile

Command function :

Privileged mode export key

Command format :

upload keyfile <private|public> <ftp|tftp> <inet|inet6> <address> <filename>
<ftp-username> <ftp-pass>

Parameter Declaration

Parameter	Parameter Declaration	Values
private	private key	
public	public key	
inet	ipv4 server address	
inet6	ipv6 server address	
address	address	
filename	file name	
ftp-username	Username used in FTP	
ftp-pass	Password used in FTP	

9.9 show keyfile

Command function :

View key

Command format :

show keyfile <private|public>

Parameter Declaration

Parameter	Parameter Declaration	Values
private	private key	
public	public key	

10. Telnet-Client Configuration command

10.1 telnet <ip>

Command function :

Access to other devices as clients in privileged mode

Command format :

telnet <ip> [*tcp-port*]

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	ip address	
tcp-port	Port number	

11. Telnet-Server/Telnetv6-Server Configuration Command

11.1 telnet enable

Command function :

Enabling function

Command format :

telnet enable

Parameter Declaration

/

11.2 telnet disable

Command function :

Delete Enabling function

Command format :

telnet disable

Parameter Declaration

/

11.3 telnet limit

Command function :

Configuring Telnet user number constraints

Command format :

telnet limit <num>

no telnet limit

Parameter Declaration

Parameter	Parameter Declaration	Values

num		0-5
-----	--	-----

11.4 telnet port

Command function :

Configure the service port number

Command format :

telnet port <num>

no telnet port

Parameter Declaration

Parameter	Parameter Declaration	Values
num		1-1023

11.5 stop telnet client

Command function :

Mandatory user downline in privileged mode

Command format :

stop telnet client <id|all>

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All users	
id	Use id	

11.6 show telnet client

Command function :

View online users

Command format :

show telnet client

Parameter Declaration

/

11.7 show telnet

Command function :

Look at the telnet service running state

Command format :

show telnet client

Parameter Declaration

/

12. Web Management configuration command

12.1 http enable

Command function :

Enabling function

Command format :

http enable[prot <num>]

Parameter Declaration

Parameter	Parameter Declaration	Values
num		3-65535

12.2 http disable

Command function :

Delete Enabling function

Command format :

http disable

Parameter Declaration

/

12.3 show http

Command function :

Look at the HTTP service running state

Command format :

show http

Parameter Declaration

/

13.SNMP Management configuration command

13.1 snmp-server enable

Command function :

Enabling function

Command format :

snmp enable

Parameter Declaration

/

13.2 snmp-server disable

Command function :

Delete Enabling function

Command format :

snmp disable

Parameter Declaration

/

13.3 snmp-server contact

Command function :

Configuration system contact

Command format :

snmp-server contact <text>

no snmp-server contact

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-255>

13.4 snmp-server location

Command function :

Configuration system location

Command format :

snmp-server location <text>

no snmp-server location

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-255>

13.5 snmp-server name

Command function :

Configuration system name

Command format :

snmp-server name <text>

no snmp-server name

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-255>

13.6 snmp-server max-packet-length

Command function :

Configuration system name

Command format :

snmp-server max-packet-length <len>
no snmp-server max-packet-length

Parameter Declaration

Parameter	Parameter Declaration	Values
len		484-8000

13.7 snmp-server trap-source

Command function :

Configuring the source three layer interface for sending trap messages

Command format :

snmp-server trap-source <vlan-interface <id >|supervlan-interface <su-id>
|loopback-interface <lo-id> >
no snmp-server trap-source

Parameter Declaration

Parameter	Parameter Declaration	Values
id	Vlan number	1-4094
su-id	Supervlna number	1-128
lo-id	Ring back id	0-1

13.8 snmp-server engineid

Command function :

Configuring engineid

Command format :

snmp-server engineid <local|remote> <text>
no snmp-server engineid <local|remote>

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-24>

13.9 snmp-server encrypt

Command function :

SNMP user password whether encrypted display

Command format :

snmp-server encrypt <enable|disable >

Parameter Declaration

Parameter	Parameter Declaration	Values
enable	encryption	
disable	Unencrypted	

13.10 snmp-server view

Command function :

Configuration attempt

Command format :

snmp-server view <view-name > <oid> <exclude|include >
no snmp-server view

Parameter Declaration

Parameter	Parameter Declaration	Values
view-name	View name	STRING<1-32>
oid	Mib tree oid	STRING<1-64>
exclude	Not containing configuration oid	
include	Only configuration oid	

13.11 snmp-server community encrypt

Command function :

Whether the group name is encrypted or not

Command format :

snmp-server community encrypt <enable|disable >

Parameter Declaration

Parameter	Parameter Declaration	Values
enable	encryption	
disable	Unencrypted	

13.12 snmp-server community md5 encrypt-communityname

Command function :

Configure the name of the ciphertext group

Command format :

snmp-server community md5 encrypt-communityname <text> <rw|ro>
<deny|permit > [view <view-name>]
no snmp-server community <index>

Parameter Declaration

Parameter	Parameter Declaration	Values
text	The group name of the ciphertext	STRING<32-32>
rw	read-write	
view-name	View name	
index	The serial number of a group	1-8

13.13 snmp-server community

Command function :

Configuration group name

Command format :

```
snmp-server community <text> <rw|ro> <deny|permit > [view
                        <view-name>]
no snmp-server community <index>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
text	The group name of the ciphertext	STRING<1-20>
rw	read-write	
view-name	View name	
index	The serial number of a group	1-8

13.14 snmp-server group

Command function :

Configuring a group of V3

Command format :

```
snmp-server group <group-name> 3 [auth | noauthpriv| priv] [context <
context-text>] [read <read-view>][ write
<write-view>][ notify <notify-view>]
```

```
no snmp-server group <group-name> 3 [auth | noauthpriv| priv] [context <
context-text>]
```

Parameter Declaration

Parameter	Parameter Declaration	Values
group-name	Group name	STRING<1-32>
auth	Authentication	
noauthpriv	Unauthenticated and unencrypted	
priv	encryption	
context-text	Configured context	
read-view	Read view	
write-view	Written view	
notify-view	Message view	

13.15 snmp-server user

Command function :

Configuring V3 users

Command format :

```
snmp-server user <username> <groupname> [ remote <ip-address>
[ udp-port <port-num>] ] [ auth [ md5 | sha ]
[auth-password <authpassword> | auth-key
<authkey> ] [ priv des priv-key [ auth-key <privkey> |
auth-password <privpassword> ] ]]
```

```
no snmp-server user <username>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
groupname	Group name	STRING<1-32>
username	User name	
ip-address	Remote address	
port-num	UDP port number	
auth	Authentication	
md5	MD5 encryption	
sha	Sha encryption	

13.16 snmp-server enable <traps|informs>

Command function :

Enabling function
traps/informs

Command format :

```
snmp enable <traps|informs> [bridge] [gbn] [gbnsavecfg] [interfaces] [rmon]
[snmp]
no snmp enable <traps/informs> [bridge] [gbn] [gbnsavecfg] [interfaces]
[rmon] [snmp]
```

Parameter Declaration

Parameter	Parameter Declaration	Values
traps	Trap message	
informs	Informs message	
bridge	Bridge related message	
gbn	Gbn related message	
gbnsavecfg	Gbnsavecfg related message	
interface	Interface related messages	
rmon	Rmon message	
snmp	Snmp message	

13.17 snmp-server host

Command function :

Notice to the destination host

Command format :

```
snmp-server host <ipaddress> [version [1 | 2c | 3 [auth | noauthpriv |
priv ] ]<security-name> [ udp-port
<port-number> ] [ notify-type [ bridge | gbn |
gbnsavecfg | interfaces | rmon | snmp ] ]
no snmp-server host <ipaddress> <security-name> <1 | 2c | 3>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ipaddress	Destination host ip	
security-name	Security name	
bridge	Bridge related message	
gbn	Gbn related message	
bgnsavecfg	Gbnsavecfg related message	
interface	Interface related messages	
rmon	Rmon message	
snmp	Snmp message	

13.18 show snmp community

Command function :

View community message

Command format :

show snmp community

Parameter Declaration

/

13.19 show snmp contact

Command function :

View contact message

Command format :

show snmp contact

Parameter Declaration

/

13.20 show snmp engineid

Command function :

View engineid message

Command format :

show snmp engineid <local|remote> <text>

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-24>

13.21 show snmp group

Command function :

View Group message

Command format :

show snmp group <groupname >

Parameter Declaration

Parameter	Parameter Declaration	Values
groupname		STRING<1-32>

13.22 show snmp host

Command function :

View the notification information host

Command format :

show snmp host

Parameter Declaration

/

13.23 show snmp location

Command function :

View location message

Command format :

show snmp location

Parameter Declaration

/

13.24 show snmp max-packet-length**Command function :**

View the maximum length of a message

Command format :**show snmp max-packet-length****Parameter Declaration**

/

13.25 show snmp mib**Command function :**

View mib message

Command format :**show snmp mib****Parameter Declaration****13.26 show snmp name****Command function :**

View snmp name

Command format :**show snmp name****Parameter Declaration**

13.27 show snmp notify

Command function :

View notify

Command format :

show snmp notify

Parameter Declaration

/

13.28 show snmp user

Command function :

View v3 User message

Command format :

show snmp user <user-name>

Parameter Declaration

/

13.29 show snmp view

Command function :

View the view corresponding to oid

Command format :

show snmp view

Parameter Declaration

/

14. User management configuration command

14.1 username <>

Command function :

Creating a user

Command format :**username** <*name*> > **password** <0|7> <*pass*>**no username****Parameter Declaration**

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>
pass		STRING<1-32>

14.2 username change-password

Command function :

Modify the password

Command format :**username change-password****Parameter Declaration**

/

14.3 username failmax

Command function :

User maximum login failure number

Command format :


```
username failmax [name ] <times>
no username failmax <name > <times>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>
times	Times	1-100

14.4 username online-max

Command function :

The number of the users at the same time at the same time

Command format :

```
username online-max <name> <num>
no username failmax <name >
```

Parameter Declaration

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>
num	Number	1-100

14.5 username silent-time

Command function :

Configuring silent time, which user can not try to log in

Command format :

```
username silent-time <min>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
-----------	-----------------------	--------

min		2-1440min

14.6 stop <>

Command function :

Privileged mode force user Downline

Command format :

stop <name >

Parameter Declaration

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>

14.7 show users

Command function :

View online users

Command format :

show users

Parameter Declaration

/

14.8 show username silent

Command function :

View silent users

Command format :

show username silent

Parameter Declaration

/

14.9 show username

Command function :

View user information

Command format :

show username <name >

Parameter Declaration

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>

15.Auto-Reboot Configuration command

15.1 auto-reboot

Command function :

Automatic reboot configuration

Command format :

auto-reboot [in hours <hour> minutes <min> | at <hh:mm:ss >
 [YYYY/MM/DD| daily| fri| mon| sat|sun|thu|tue|wed]]
no auto-reboot

Parameter Declaration

Parameter	Parameter Declaration	Values
hour	hour	
min	minute	
hh:mm:ss	Hour minute second	
yyyy/mm/dd	Year month date	
daily	Every day	

16. System debug configuration command

16.1 ping

Command function :

Check whether the IPv4 host is reachable

Command format :

`ping [-i ttl][-l len][-n count][-s sourceip][-t timeout] <host-ip>`

Parameter Declaration

Parameter	Parameter Declaration	Values
ttl	Hopping number	1-255
len	Packet length	0-4064 byte
count	Number of packets	1-2147483647
sourceip	Source IP	
timeout	timeout	1-60s
host-ip	Destination host IP	

16.2 ping6

Command function :

Check whether the IPv6 host is reachable

Command format :

`ping6 [-h hop][-s len][-c count][-a sourceip][-w timeout] [-t]<host-ipv6>`

Parameter Declaration

Parameter	Parameter Declaration	Values
hop	Hopping number	1-255
len	Packet length	20-8100byte
count	Number of packets	1-2147483647
sourceip	Source IP	
timeout	timeout	1-60s
host-ipv6	Destination host ipv6	

16.3 tracert

Command function :

The path that has been detected by the destination host

Command format :

```
tracert [-c] [-u] [-h ttl] [-w timeout] <host-ip>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ttl	Hopping number	1-255
-c	Icmp mode	
-u	Udp mode	
timeout	timeout	1-60s
host-ip	Destination host ip	

16.4 tracert6

Command function :

The path that has been detected by the IPv6 destination host

Command format :

```
tracert6 [-h hop] [-w timeout] <host-ipv6>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
hop	Hopping number	1-255
timeout	timeout	1-60s
host-ipv6	Destination host ipv6	

17 System information configuration and display command

17.1 show version

Command function :

View version information

Command format :

show version

Parameter Declaration

/

17.2 show system

Command function :

View the running information

Command format :

show system

Parameter Declaration

/

17.3 show memory

Command function :

View memory information

Command format :

show memory

Parameter Declaration

/

17.4 show clock

Command function :

View the current time

Command format :

`show clock`

Parameter Declaration

`/`

17.5 hostname

Command function :

Configure the host name

Command format :

`hostname <name>`

Parameter Declaration

18 Telnetv6-Client Configuration command

18.1 telnet6 <ipv6>

Command function :

Access to other devices as clients in privileged mode

Command format :

`telnet <ipv6> [tcp-port|/localecho]`

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	ip address	
tcp-port	Port number	
/localecho		

19. File download configuration command

19.1 load application xmodem

Command function :

load application xmodem

Command to use xmodem to download the host program

Command format :

load application xmodem

Parameter description :

None

19.2 load application tftp

Command function :

load application tftp inet[6] server-ip xxx.arj

Command to use tftp to download the host program

Command format :

load application tftp inet 1.1.1.1 host.arj

load application tftp inet6 2001::1 host.arj

Parameter description :

Parameter	Parameter description :	Value
server-ip	Tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

19.3 load application ftp

Command function :

load application ftp inet[6] server-ip xxx.arj username password

Command to use ftp to download the host program

Command format :

load application ftp inet 1.1.1.1 host.arj admin admin

load application ftp inet6 2001::1 host.arj admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

19.4 load whole-bootrom xmodem

Command function :

load whole-bootrom xmodem

Command to use xmodem to download the bootrom program

Command format :

load whole-bootrom xmodem

Parameter description :

None

19.5 load whole-bootrom tftp

Command function :

load whole-bootrom tftp inet[6] server-ip xxx.bin

Command to use tftp to download the bootrom program

Command format :

load whole-bootrom tftp inet 1.1.1.1 bootrom.bin

load whole-bootrom tftp inet6 2001::1 bootrom.bin

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

19.6 load whole-bootrom ftp

Command function :

load whole-bootrom ftp inet[6] server-ip xxx.bin username password

Command to use ftp to download the bootrom program

Command format :

load whole-bootrom ftp inet 1.1.1.1 bootrom.bin admin admin

load whole-bootrom ftp inet6 2001::1 bootrom.bin admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6	32-bit binary number in the format X.X.X.X

	address	128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	Ftp server password	STRING<1-32>

19.7 load configuration xmodem

Command function :

load configuration xmodem

Command to use xmodem to download configuration files

Command format :

load configuration xmodem

Parameter description :

None

19.8 load configuration tftp

Command function :

load configuration tftp inet[6] server-ip xxx

Command to use tftp to download configuration files

Command format :

load configuration tftp inet 1.1.1.1 config

load configuration tftp inet6 2001::1 config

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

19.9 load configuration ftp

Command function :

load configuration ftp inet[6] server-ip xxx username password

Command to use ftp to download configuration files

Command format :

load configuration ftp inet 1.1.1.1 config admin admin

load configuration ftp inet6 2001::1 config admin admin

Parameter description :

Parameter	Parameter description :	Value
-----------	-------------------------	-------

server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

19.10 load keyfile private tftp

Command function :

load keyfile private tftp inet[6] server-ip private.txt

Command to use tftp for private key download

Command format :

load keyfile private tftp inet 1.1.1.1 private.txt

load keyfile private tftp inet6 2001::1 private.txt

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

19.11 load keyfile private ftp

Command function :

load keyfile private ftp inet[6] server-ip private.txt username password

Command to use ftp for private key download

Command format :

load keyfile private ftp inet 1.1.1.1 private.txt admin admin

load keyfile private ftp inet6 2001::1 private.txt admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	Any character available
password	ftp server password	Any character available

19.12 load keyfile public tftp

Command function :

```
load keyfile public tftp inet[6] server-ip public.txt
```

Command to use tftp for public key download

Command format :

```
load keyfile public tftp inet 1.1.1.1 public.txt
```

```
load keyfile public tftp inet6 2001::1 public.txt
```

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

19.13 load keyfile public ftp

Command function :

```
load keyfile public ftp inet[6] server-ip public.txt username password
```

Command to use ftp for public key download

Command format :

```
load keyfile public ftp inet 1.1.1.1 public.txt admin admin
```

```
load keyfile public ftp inet6 2001::1 public.txt admin admin
```

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

20.file upload configuration command

20.1 upload application ftp

Command function :

```
upload application ftp inet[6] server-ip xxx.arj username password
```

Command to use ftp method for host program upload

Command format :

upload application ftp inet 1.1.1.1 host.arj admin admin
upload application ftp inet6 2001::1 host.arj admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

20.2 upload application tftp

Command function :

upload application tftp inet[6] server-ip xxx.arj

Command to use tftp method for host program upload

Command format :

upload application tftp inet 1.1.1.1 host.arj
upload application tftp inet6 2001::1 host.arj

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

20.3 upload logging ftp

Command function :

upload logging ftp inet[6] server-ip log.txt username password

Command to use ftp method for log files upload

Command format :

upload logging ftp inet 1.1.1.1 log.txt admin admin
upload logging ftp inet6 2001::1 log.txt admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

20.4 upload logging tftp

Command function :

upload logging tftp inet[6] server-ip log.txt

Command to use tftp method for log files upload

Command format :

upload logging tftp inet 1.1.1.1 log.txt

upload logging tftp inet6 2001::1 log.txt

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

20.5 copy running-config startup-config

Command function :

copy running-config startup-config

Command to save the current configuration to flash

Command format :

copy running-config startup-config

Parameter description :

None

20.6 upload configuration ftp

Command function :

upload configuration ftp inet[6] server-ip config.txt username password

Command to use ftp method for configuration files upload

Command format :

upload configuration ftp inet 1.1.1.1 config.txt admin admin

upload configuration ftp inet6 2001::1 config.txt admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format

		X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

20.7 upload configuration tftp

Command function :

upload configuration tftp inet[6] server-ip config.txt

Command to use tftp method for configuration files upload

Command format :

upload configuration tftp inet 1.1.1.1 config.txt

upload configuration tftp inet6 2001::1 config.txt

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

20.8 upload automatically configuration ftp

Command function :

upload automatically configuration ftp inet[6] server-ip config.txt username

password per hours hours-num minutes minutes -num

Command to use ftp method for automatically configuration files upload

Command format :

upload automatically configuration ftp inet 1.1.1.1 config.txt admin admin per hours 1 minutes 5

upload automatically configuration ftp inet6 2001::1 config.txt admin admin per hours 1 minutes 5

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>
hours-num	Interval hour	0-23
minutes -num	Interval minutes	5-59

20.9 upload automatically configuration tftp

Command function :

upload automatically configuration tftp inet[6] server-ip config.txt per hours

hours-num minutes minutes -num

Command to use tftp method for automatically configuration files upload

Command format :

upload automatically configuration tftp inet 1.1.1.1 config.txt per hours 1

minutes 5

upload automatically configuration tftp inet6 2001::1 config.txt per hours 1

minutes 5

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
hours-num	Interval hour	0-23
minutes -num	Interval minutes	5-59

20.10 upload keyfile private tftp

Command function :

upload keyfile private tftp inet[6] server-ip private.txt

Command to use tftp method for private key upload

Command format :

upload keyfile private tftp inet 1.1.1.1 private.txt

upload keyfile private tftp inet6 2001::1 private.txt

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

20.11 upload keyfile private ftp

Command function :

upload keyfile private ftp inet[6] server-ip private.txt username password

Command to use ftp method for private key upload

Command format :

upload keyfile private ftp inet 1.1.1.1 private.txt admin admin

upload keyfile private ftp inet6 2001::1 private.txt admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

20.12 upload keyfile public tftp

Command function :

upload keyfile public tftp inet[6] server-ip public.txt

Command to use tftp method for private key upload

Command format :

upload keyfile public tftp inet 1.1.1.1 public.txt

upload keyfile public tftp inet6 2001::1 public.txt

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

20.13 upload keyfile public ftp

Command function :

upload keyfile public ftp inet[6] server-ip public.txt username password

Command to use tftp method for public key upload

Command format :

upload keyfile public ftp inet 1.1.1.1 public.txt admin admin

upload keyfile public ftp inet6 2001::1 public.txt admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

21.configuration management command

21.1 show running-config

Command function :

show running-config [*module* | interface ethernet *port-id*][perlines *lines*]

Command to view the current configuration decompilation

Command format :

show running-config if

show running-config interface ethernet 0/0/1

show running-config perlines 3

Parameter description :

Parameter	Parameter description :	Value
module	Various business types	Determined according to the switch feature module
port-id	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4
lines	Display several lines at a time	0-4096

21.2 show startup-config

Command function :

show startup-config [*module* |perlines *lines*]

Command to view startup configuration

Command format :

show startup-config if

show startup-config perlines 3

Parameter description :

Parameter	Parameter description :	Value
module	Various business types	Determined according to the switch feature module
lines	Display several lines at a time	0-4096

21.3 copy startup-config running-config

Command function :

copy startup-config running-config

Command line load startup configuration in privileged mode

Command format :

`copy startup-config running-config`

Parameter description :

None

21.4 clear startup-config

Command function :

`clear startup-config`

Command to clear startup configuration

Command format :

`clear startup-config`

Parameter description :

None

22.Active and standby file system configuration command

22.1 load secondary application tftp

Command function :

`load secondary application tftp inet[6] server-ip xxx.arj`

Command to use tftp to download the host program

Command format :

`load secondary application tftp inet 1.1.1.1 host.arj`

`load secondary application tftp inet6 2001::1 host.arj`

Parameter description :

Parameter	Parameter description :	Value
server-ip	tftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X

22.2 load secondary application ftp

Command function :

`load secondary application ftp inet[6] server-ip xxx.arj username password`

Command to use ftp to download the host program

Command format :

load secondary application ftp inet 1.1.1.1 host.arj admin admin

load secondary application ftp inet6 2001::1 host.arj admin admin

Parameter description :

Parameter	Parameter description :	Value
server-ip	ftp server ip/ipv6 address	32-bit binary number in the format X.X.X.X 128-bit binary number in the format X:X:X:X:X:X:X:X
username	ftp server username	Any character available
password	ftp server password	Any character available

22.3 startup secondary application

Command function :

startup secondary application

Command to enable standby host program

no startup secondary application

Command to resume enabling host program

Command format :

startup secondary application

no startup secondary application

Parameter description :

None

23.Cpu-Alarm Command Manual

23.1 alarm cpu

Command function :

(no) alarm cpu

Command switch CPU alarm

Command format :

alarm cpu

Parameter description :

None

23.2 alarm cpu threshold

Command function :

(no)alarm cpu threshold busy *value* | unbusy *value*
 Command configuration (remove) threshold information

Command format :

alarm cpu threshold busy 21 unbusy 2
no alarm cpu threshold

Parameter description :

Parameter	Parameter description :	Value
<i>value</i>	Threshold (%)	0-100

23.3 show alarm cpu

Command function :

show alarm cpu
 command to view alarm information

Command format :

show alarm cpu

Parameter description :

None

24.Port-Alarm configuration manual

24.1 alarm all-packets

Command function :

(no) alarm all-packets
 Global alarms are configured on the global switch and port alarms are configured on the port switch.

Command format :

alarm all-packets

Parameter description :

None

24.2 alarm all-packets threshold

Command function :**(no) alarm all-packets threshold [exceed *value* | normal *value*]**

Command configuration (remove) threshold information

Command format :**alarm all-packets threshold normal 2 exceed 3****no alarm all-packets threshold****Parameter description :**

Parameter	Parameter description :	Value
<i>value</i>	Traffic threshold (Mbps)	1-1000

24.3 show alarm all-packets

Command function :**show alarm all-packets [interface [ethernet *port-id*]]**

Command to view alarm information

Command format :**show alarm all-packets****show alarm all-packets interface ethernet 0/0/1****Parameter description :**

Parameter	Parameter description :	Value
<i>port-id</i>	The port number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

25.Sylsog configuration manual

25.1 logging

Command function :**(no) logging**

Command switch log switch

Command format :**logging****Parameter description :****None**

25.2 show logging

Command function :

Show logging

Command to view configuration information

Command format :

Show logging

Parameter description :

None

25.3 logging sequence-numbers

Command function :

(no)logging sequence-numbers

Command switch log sequence-numbers

Command format :

logging sequence-numbers

Parameter description :

None

25.4 logging timestamps

Command function :

(no)logging timestamps [notime | uptime | datetime | rfc5424]

Command configuration (restoration) timestamp type

Command format :

logging timestamps notime

no logging timestamps

Parameter description :

Parameter	Parameter description :	Value
notime	Don't show timestamps	None
uptime	Boot time display timestamp	None
datetime	Display timestamps in absolute time	None
rfc5424	rfc5424 display timestamps	None

25.5 terminal monitor

Command function :

(no)terminal monitor
Command switch output to terminal

Command format :

terminal monitor
no terminal monitor

Parameter description :

None

25.6 logging monitor all | *monitor-num*

Command function :

(no) logging monitor [all | *monitor-num*]
Command to open (close) output to terminal switch

Command format :

no logging monitor all

Parameter description :

Parameter	Parameter description :	Value
<i>monitor-num</i>	Monitor number	0-5

25.7 logging monitor all | *monitor-num level-value* | none | level-list level-list

Command function :

logging monitor all | *monitor-num level-value* | none | level-list [*start-level* to *end-level*] | *level-value*] [**module *module-name*]**
command to configuration log filtering rules

Command format :

logging monitor 3 level-lis 2 module igmp

Parameter description :

Parameter	Parameter description :	Value
<i>monitor-num</i>	Monitor number	0-5
<i>level-value</i>	Information level	0-7
<i>start-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.8 show logging filter monitor

Command function :

show logging filter monitor *monitor-num*

Command to view filter rules

Command format :

show logging filter monitor 5

Parameter description :

Parameter	Parameter description :	Value
<i>monitor-num</i>	Monitor number	0-5

25.9 no logging monitor all | monitor-num filter

Command function :

no logging monitor [**all** | *monitor-num*] **filter**

Command to delete the filter rule

Command format :

no logging monitor 5 filter

Parameter description :

Parameter	Parameter description :	Value
<i>monitor-num</i>	Monitor number	0-5

25.10 logging buffered

Command function :

(no)logging buffered

Command switch output to buffer

Command format :

logging buffered

no logging buffered

Parameter description :

None

25.11 logging buffered *level-value* | none | level-list

Command function :

logging buffered *level-value* | **none** | **level-list** [[*start-level* to *end-level*]]

level-value] [**module** *module-name*]

command to configure log filtering rules

Command format :

logging buffered level-list 2 3 module rip

Parameter description :

Parameter	Parameter description :	Value
<i>level-value</i>	Information level	0-7
<i>start-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.12 show logging filter buffered

Command function :

show logging filter buffered

command to view filter rules

Command format :

show logging filter buffered

Parameter description :

None

25.13 no logging buffered filter

Command function :

no logging buffered filter

Command to delete the filter rule

Command format :

no logging buffered filter

Parameter description :

None

25.14 show logging buffered

Command function :

Show logging buffered [*level-value* | **count | **level-list** [*start-level* **to** *end-level* | *value*]] [**module** *module-name*]**

Command to delete the filter rule

Command format :

show logging buffered 3 module rip

Parameter description :

Parameter	Parameter description :	Value
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<i>level-value</i>	Information level	0-7
<i>start-leve</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.15 logging flash

Command function :

(no) logging flash

Command turns on (off) the output to memory switch

Command format :

logging flash

no logging flash

Parameter description :

None

25.16 logging flash *level-value* | none | level-list

Command function :

logging flash *level-value* | none | level-list [*start-leve* to *end-level* | *level-value*]

[**module *module-name***]

Command to configure log filtering rules

Command format :

logging flash level-list 2 3 module rip

Parameter description :

Parameter	Parameter description :	Value
<i>level-value</i>	Information level	0-7
<i>start-leve</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.17 show logging filter flash

Command function :

show logging filter flash

Command to view filter rules

Command format :

show logging filter flash

Parameter description :

None

25.18 no logging flash filter

Command function :

no logging flash filter
command to delete the filter rule

Command format :

no logging flash filter

Parameter description :

None

25.19 logging flash interval

Command function :

[no] logging flash interval *value*
Command configuration (remove) save cycle

Command format :

logging flash interval 30
no logging flash interval

Parameter description :

Parameter	Parameter description :	Value
<i>value</i>	Write flash time interval (time)	30-180

25.20 logging flash msg-number

Command function :

[no] logging flash msg-number *value*
Command configuration (remove) saves log specifications each time

Command format :

logging flash msg-number 100
no logging flash msg-number

Parameter description :

Parameter	Parameter description :	Value
<i>value</i>	Write flash number	100-500

25.21 show logging flash

Command function :

Show logging flash [*level-value* | **count** | **level-list** [*start-level* to *end-level* | *value*]] [**module** *module-name*]

Command to view log information in flash

Command format :

show logging flash 3 module rip

Parameter description :

Parameter	Parameter description :	Value
<i>level-value</i>	Information level	0-7
<i>start-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.22 logging *ip-address*

Command function :

(no) logging *ip-address* [*port-num*]

Command to configure (delete) log server

Command format :

logging 1.1.1.1 25

no logging 1.1.1.1 25

Parameter description :

Parameter	Parameter description :	Value
<i>ip-address</i>	Syslog server IP address	32-bit binary number in the format X:X:X:X
<i>port-num</i>	Port number, default is 514	1-65535

25.23 logging host all | *ip-address*

Command function :

(no) logging host all | *ip-address*

Command to open (close) log server

Command format :

logging host 1.1.1.1

no logging host 1.1.1.1

Parameter description :

Parameter	Parameter description :	Value
<i>ip-address</i>	Syslog server IP address	32-bit binary number in the format X:X:X:X

25.24 logging host all | *ip-address level-value* | none | level-list

Command function :

logging host all | *ip-address level-value* | none | level-list [*start-level* to *end-level* | *level-value*] [module *module-name*]

Command to configure filtering rules

Command format :

logging host 1.1.1.1 3 module ospf

Parameter description :

Parameter	Parameter description :	Value
<i>ip-address</i>	Syslog server IP address	32-bit binary number in the format X:X:X:X
<i>level-value</i>	Information level	0-7
<i>start-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.25 no logging host all | *ip-address filter*

Command function :

no logging host [all | *ip-address*] filter

command to restore the default rule

Command format :

no logging host all filter

Parameter description :

Parameter	Parameter description :	Value
<i>ip-address</i>	Syslog server IP address	32-bit binary number in the format X:X:X:X

25.26 logging facility

Command function :

(no) logging facility [clock1 | clock2 | ftp | kernel | lineprinter | localuse0 | localuse1 | localuse2 | localuse3 | localuse4 | localuse5 | localuse6 | localuse6 | localuse7 | logalert | logaudit | mail | networkknews | ntp | security1 | security2 | syslogd | system | userlevel | uucp]

Command configuration (delete) logging tool name

Command format :

no logging facility

Parameter description :

None

25.27 logging source

Command function :

(no)logging source *ip-address* | **loopback-interface** *if-id*

Command to configure (remove) the source IP address of log packets

Command format :

no logging source

Parameter description :

Parameter	Parameter description :	Value
<i>ip-address</i>	Configure and valid IP address	32-bit binary number in the format X:X:X:X
<i>if-id</i>	Lookback interface id	0-1

25.28 logging snmp-agent

Command function :

logging snmp-agent

Command to turn on(off) output log to SNMP agent

Command format :

no logging snmp-agent

Parameter description :

None

25.29 logging snmp-agent *level-value* | **none** | *level-list*

Command function :

logging snmp-agent *level-value* | **none** | **level-list** [*start-level* to *end-level* | *level-value*] [**module** *module-name*]

Command to configure filtering rules

Command format :

no logging snmp-agent

Parameter description :

Parameter	Parameter description :	Value
<i>level-value</i>	Information level	0-7
<i>start-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

25.30 show logging filter snmp-agent

Command function :

show logging filter snmp-agent
Command to view filter rules

Command format :

show logging filter snmp-agent

Parameter description :

None

25.31 no logging snmp-agent filter

Command function :

no logging snmp-agent filter
Command to restore the default filter rule

Command format :

no logging snmp-agent filter

Parameter description :

None

25.32 debug

Command function :

(no) debug all | *module-name*
Command to enable (disable) the debugging function of the module

Command format :

debug all

Parameter description :

Parameter	Parameter description :	Value
<i>module-name</i>	Module name	Switch feature module

25.33 show debug

Command function :

show debug
Command to view the configuration information of the debugging function

Command format :

show debug

Parameter description :

None

26.Sntp-Client Configuration command

26.1 sntp client

Command function :

Sntp client enable switch.

Command format :

sntp client

no sntp client

Parameter description :

Parameter	Parameter description :	Value range

26.2 sntp client mode

Command function :

Sntp client mode.

Command format :

sntp client mode [anycast|broadcast|multicast|unicast]

Parameter description :

Parameter	Parameter description :	Value range
anycast		anycast
broadcast		broadcast
multicast		multicast
unicast		unicast

26.3 sntp client authenticate

Command function :

Sntp client authentication function switch.

Command format :

sntp client authenticate

no sntp client authenticate

Parameter description :

26.4 sntp client authentication-key encrypt

Command function :

Sntp client password is encrypted to show

Command format :

sntp client authentication-key encrypt [enable|disable]
no sntp client

Parameter description :

Parameter	Parameter description :	Value range
enable		Encrypted display
disable		Unencrypted display

26.5 sntp client authentication-key

Command function :

Sntp client password

Command format :

sntp client authentication-key [id] [encrypt-key <key>|md5 <md5-key>]
no sntp client

Parameter description :

Parameter	Parameter description :	Value range
id		Key id
key		password
md5-key		md5 password

26.6 sntp client broadcastdelay

Command function :

Modify broadcast delay

Command format :

sntp client broadcastdelay [seconds]
no sntp client broadcastdelay

Parameter description :

Parameter	Parameter description :	Value range
seconds		1-9999s

26.7 sntp client poll-interval**Command function :**

Configure poll-interval

Command format :**sntp client poll-interval** [*seconds*]**no sntp client poll-interval****Parameter description :**

Parameter	Parameter description :	Value range
seconds		64-1024s , default 1000s

26.8 sntp client retransmit**Command function :**

Configure retransmission times

Command format :**sntp client retransmit** [*times*]**no sntp client retransmit****Parameter description :**

Parameter	Parameter description :	Value range
times		1-10

26.9 sntp client retransmit-interval**Command function :**

Configure retransmission interval

Command format :**sntp client retransmit-interval** [*seconds*]**no sntp client retransmit-interval****Parameter description :**

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

seconds		3-30s
---------	--	-------

26.10 sntp client summer-time dayly

Command function :

Configure daylight saving time

Command format :

sntp client summer-time dayly *<start-month start-day start-time end-month end-day end-time >*

no sntp client summer-time

Parameter description :

Parameter	Parameter description :	Value range
start-month	start-month	
start-day	start-day	
start-time	start-time	
end-month	end-month	
end-day	end-day	
end-time	end-time	

26.11 sntp client summer-time weekly

Command function :

Configure sntp daylight saving time

Command format :

sntp client summer-time weekly *<start-month start-week [Fri | mon | sat | sun | thu | tue | wed] start-time end-month end-week [Fri | mon | sat | sun | thu | tue | wed] end-time >*

no sntp client summer-time

Parameter description :

Parameter	Parameter description :	Value range
start-month	start-month	
start-week	start-week	
start-time	start-time	
end-month	end-month	
end-day	end-day	
end-time	end-time	

26.12 sntp client valid-server

Command function :

Configure legitimate servers

Command format :

sntp client valid-server <ip> < wmask>

no sntp client valid-server [all|ip wmask]

Parameter description :

Parameter	Parameter description :	Value range
ip	Server IP	
wmask	wmask	

26.13 sntp trusted-key

Command function :

Configure trust password id

Command format :

sntp trusted-key < id>

no sntp trusted-key < id>

Parameter description :

Parameter	Parameter description :	Value range
id	Key id	

26.14 sntp server key

Command function :

Configure trust password id

Command format :

sntp server key < id>

no sntp server key < id>

Parameter description :

Parameter	Parameter description :	Value range
id	Key id	

26.15 sntp server backup

Command function :

Configure the backup server IP

Command format :

sntp server backup < *ip* >

no sntp server backup

Parameter description :

Parameter	Parameter description :	Value range
ip	Ip address	

26.16 sntp server

Command function :

Configure the master server IP

Command format :

sntp server < *ip* >

no sntp server

Parameter description :

Parameter	Parameter description :	Value range
ip	Ip address	

26.17 show sntp client

Command function :

View the customer's run information

Command format :

show sntp client

Parameter description :

None

26.18 show sntp client summer-time

Command function :

View daylight saving time

Command format :

show sntp client summer-time

Parameter description :

None

27. System time configuration command

27.1 clock set

Command function :

Configure system time in privileged Mode

Command format :**clock set** <HH:MM:SS YYYY/MM/DD>**Parameter description :**

Parameter	Parameter description :	Value range
HH:MM:SS	HH:MM:SS	
YYYY/MM/DD	YYYY/MM/DD	

27.2 clock timezone

Command function :

Configure time zone

Command format :**clock timezone** <zone-name hours-offset minutes-offset >**no clock timezone****Parameter description :**

Parameter	Parameter description :	Value range
zone-name	zone-name	STRING<1-32>
hours-offset	hours-offset	
minutes-offset	minutes-offset	

27.3 clock summer-time dayly

Command function :

Configure daylight saving time

Command format :**clock summer-time dayly** <start-time start-date end-time end-date >**no clock summer-time****Parameter description :**

Parameter	Parameter description :	Value range
start-date	start-date	
start-time	start-time	
end-date	end-date	
end-time	end-time	

27.4 clock summer-time weekly

Command function :

Configure system time daylight saving time

Command format :

clock summer-time weekly <*start-time start-month start-week [Fri | mon | sat | sun | thu | tue | wed] end-time end-month end-week [Fri | mon | sat | sun | thu | tue | wed]*>

no clock summer-time

Parameter description :

Parameter	Parameter description :	Value range
start-month	start-month	
start-week	start-week	
start-time	start-time	
end-month	end-month	
end-day	end-day	
end-time	end-time	

27.5 show clock

Command function :

View system current time, time zone information

Command format :

show clock

Parameter description :

None

28.Port mirror configuration command

28.1 mirror source

Command function :

mirror source [ethernet *port-id* | **cpu**] [ingress | egress | both]

Command to configure mirror source

Command format :

mirror source ethernet 0/0/1 both

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

28.2 mirror monitor ethernet

Command function :

mirror monitor ethernet *port-id*

Command to configure mirroring destination port

Command format :

mirror monitor ethernet 0/0/2

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port-id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

28.3 no mirror

Command function :

no mirror [all | **monitor ethernet** *port-id* | **source** [cpu | ethernet *port-id*]]

Command to configure delete mirroring groups

Command format :

no mirror source ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

28.4 show mirror**Command function :****show mirror**

Command to view mirroring groups

Command format :**show mirror****Parameter description :**

None

29.Remote mirror configuration command**29.1 mirror source****Command function :****mirror source [ethernet *port-id* | cpu] [ingress | egress | both]**

Command to configure mirror source

Command format :**mirror source ethernet 0/0/1 both****Parameter description :**

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

29.2 mirror monitor ethernet**Command function :****mirror monitor ethernet *port-id***

Command to configure Mirror destination port.

Command format :**mirror monitor ethernet 0/0/2**

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port-id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

29.3 remote_mirror rspan local vlan

Command function :

remote_mirror rspan local vlan *vlan-id*

Command to configure remote mirror on the local mirror destination port mode vlan

Command format :

remote_mirror rspan local vlan 33

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

29.4 no remote_mirror rspan local vlan

Command function :

no remote_mirror rspan local vlan *vlan-id*

Command to delete the remote mirror on the local mirror destination port

Command format :

no remote_mirror rspan local vlan 33

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

29.5 remote_mirror rspan middle vlan

Command function :

remote_mirror rspan middle vlan *vlan-id*

Command to configure remote mirror vlan for middle devices

Command format :

remote_mirror rspan middle vlan 12

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

29.6 no remote_mirror rspan middle vlan

Command function :

no remote_mirror rspan middle vlan *vlan-id*

Command to delete the remote mirror vlan for the middle device.

Command format :

no remote_mirror rspan middle vlan 12

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

29.7 remote_mirror rspan target vlan

Command function :

remote_mirror rspan target vlan *vlan-id*

Command to configure the remote mirror vlan for the target device

Command format :

remote_mirror rspan target vlan 12

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

29.8 no remote_mirror rspan target vlan

Command function :

no remote_mirror rspan target vlan *vlan-id*

Command to remove the remote mirror vlan from the target device

Command format :

no remote_mirror rspan target vlan 12

Parameter description :

Parameter	Parameter description :	Value range
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vlan-id	Get vlan id	1-4094
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29.9 show remote_mirror

Command function :

show remote_mirror
 Command to view remote mirror group

Command format :

show remote_mirror

Parameter description :

None

30.ERSPAN Configuration command

30.1 mirror source

Command function :

mirror source [ethernet *port-id* | cpu] [ingress | egress | both] Command to configure the mirror source

Command format :

mirror source ethernet 0/0/1 both

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

30.2 mirror monitor ethernet

Command function :

mirror monitor ethernet *port-id*
 Command to configure mirror destination port

Command format :

mirror monitor ethernet 0/0/2

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0

		/ 1 - 0 / 1 / 4
--	--	-----------------

30.3 remote_mirror erspan ipaddress

Command function :

remote_mirror erspan ipaddress *ipaddress* [**vlan** *vlan-id* [**tpid** *tpid*]]

Command to configure enhanced remote port mirror address on the local mirror destination port.

Command format :

remote_mirror rspan local vlan 33

Parameter description :

Parameter	Parameter description :	Value range
ipaddress	Configurable valid IP address	32-bit binary, in the form of X: X: X: X
vlan-id	Get vlan id	1-4094
tpid	Vlan Protocol number	1-FFFF

30.4 no remote_mirror erspan

Command function :

no remote_mirror erspan

Command to configure enhanced remote port mirror on the local mirror destination port.

Command format :

no remote_mirror erspan

Parameter description :

None

30.5 show remote_mirror

Command function :

show remote_mirror

Command to view remote mirror group

Command format :

show remote_mirror

Parameter description :

None

31.RMON configuration command

31.1 rmon statistics

Command function :

rmon statistics *index* [**owner** *string*]

Command to create a statistics group in port mode

Command format :

rmon statistics 1 owner 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535
string	Description string	1-127 character

31.2 no rmon statistics

Command function :

no rmon statistics [*index*]

Command to delete statistic group in port mode

Command format :

no rmon statistics 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535

31.3 rmon history

Command function :

rmon history *index* **bucket** *bucket-num* **interval** *value* [**owner** *string*]

Command to create a history group in port mode

Command format :

rmon history 1 buckets 1 interval 1 owner string

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535
bucket-num	Recorded number value	1-65535
value	Sample interval (seconds)	1-3600
string	Description string	1-127 character

31.4 no rmon history

Command function :

no rmon history[*index*]

Command to delete a history group in port mode

Command format :

no rmon history 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535

31.5 show rmon statistics interface

Command function :

show rmon statistics interface [*ethernet port-id*]

Command to Statistic Group Information View

Command format :

show rmon statistics interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

31.6 show rmon history interface

Command function :

show rmon history interface [*ethernet port-id*]

Command to view history group information

Command format :

show rmon history interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port-id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

31.7 rmon event

Command function :

rmon event *index* [**description** *string*] [**log** | **log-trap** | **trap** | **none**] [**owner** *string*]

Command to Create event table item in global mode.

Command format :

rmon event 1 description 2 log owner string

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535
string	Description string	1-127 character

31.8 no rmon event

Command function :

no rmon event [*index*]

Command to delete event table items in global mode

Command format :

no rmon event 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535

31.9 show rmon event

Command function :

show rmon event [**event** | **eventlog**] [*index*]

Command history group information view

Command format :

show rmon eventlog 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535

31.10 rmon alarm

Command function :

rmon alarm *index mib-oid value [absolute | delta] rising threshold-value index falling threshold-value index [owner string]*

Command to create alarm groups in global mode

Command format :

rmon alarm 1 1.3.6.1.2.1.16.1.1.1.5 1 absolute rising 3 2 falling 2 2 owner

string

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535
mib-oid	MIB object identity (for example: 1.3.6.1.2.1.16.1.1.1.5.1)	1-127 character
value	Sample interval (seconds)	1-3600
threshold-value	Threshold value of sample statistics	1-2147483647
string	Description string	1-127 character

31.11 no rmon alarm

Command function :

no rmon alarm [*index*]

Command to delete alarm groups in global mode

Command format :

no rmon alarm 1

Parameter description :

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

index	Table index	1-65535
-------	-------------	---------

31.12 show rmon alarm

Command function :

show rmon alarm [*index*]
Command alarm Group Information View

Command format :

show rmon alarm 1

Parameter description :

Parameter	Parameter description :	Value range
index	Table index	1-65535

32.sFlow Configuration command

32.1 sflow agent

Command function :

sflow agent ip *ip-address*
Command to configure the sampling flow proxy IP

Command format :

sflow agent ip 1.1.1.1

Parameter description :

Parameter	Parameter description :	Value range
ipaddress	Configurable valid IP address	32-bit binary, in the form of X: X: X: X

32.2 no sflow agent ip

Command function :

no sflow agent ip
Command to delete the sample stream agent

Command format :

no sflow agent ip

Parameter description :

None

32.3 sflow collector

Command function :

sflow collector *collector-id* **ip** *ip-address* [**port** *udp-port*]

Command sample stream acquisition IP

Command format :

sflow collecto 1 ip 1.1.1.1 port 1

Parameter description :

None

Parameter	Parameter description :	Value range
collector-id	Sample stream ID	1-10
ipaddress	Configurable valid IP address	32-bit binary, in the form of X: X: X: X
udp-port	Sample flow destination UDP port (default is 6343)	1-65535

32.4 no sflow collector

Command function :

no sflow collector *collector-id*

Command to delete sampling stream acquisition

Command format :

no sflow collector 1

Parameter description :

Parameter	Parameter description :	Value range
collector-id	Sample flow ID	1-10

32.5 no sflow collector

Command function :

no sflow collector *collector-id*

Command delete sampling flow acquisition

Command format :

no sflow collector 1

Parameter description :

Parameter	Parameter description :	Value range
collector-id	Sample stream ID	1-10

32.6 sflow counter interval

Command function :

[no]sflow counter interval value

Command to configure the interval for counter sample in port mode, enable the counter sample function at the same time.

Command format :

[no] sflow counter interval 100

Parameter description :

Parameter	Parameter description :	Value range
value	Counter interval	2-86400

32.7 sflow counter collector

Command function :

[no] sflow counter collector *collector-id*

Command to configure counter sample in port mode, and output the destination collector of the sFlow message

Command format :

[no] sflow counter collector 1

Parameter description :

Parameter	Parameter description :	Value range
collector-id	Sample flow ID	1-10

32.8 sflow flow collector

Command function :

[no] sflow flow collector *collector-id*

Command to configure flow sample in port mode, and output the destination collector of the sFlow message

Command format :

[no] sflow flow collector 1

Parameter description :

Parameter	Parameter description :	Value range
collector-id	Sample flow ID	1-10

32.9 sflow sampling-rate

Command function :

[no] sflow sampling-rate *rate*

Command to configure the flow sample rate in port mode, that is, extract one message from rate message to sample, Enable Flow sample at the same time

Command format :

[no] sflow sampling-rate 1000

Parameter description :

Parameter	Parameter description :	Value range
rate	sample rate	1000-500000 pps

32.10 sflow flow max-header

Command function :

[no] sflow flow max-header *length*

Command to configure in port mode to configure when do message content copy, Starting with the header of the original message, Maximum number of bytes copied, default is 128

Command format :

[no] sflow flow max-header 130

Parameter description :

Parameter	Parameter description :	Value range
length	Number of bytes	18-512 pps

32.11 show sflow

Command function :

show sflow

Command to view the collection stream configuration

Command format :

show sflow

Parameter description :

None

33. Anti ARP spoofing configuration command

33.1 arp anti-spoofing

Command function :

Opening arp anti-spoofing function

Command format :

```
arp anti-spoofing
no arp anti-spoofing
```

Parameter Declaration

/

33.2 arp anti-spoofing action

Command function :

Processing of unknown ARP

Command format :

```
arp anti-spoofing action <discard|flood>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
discard	Discard	
flood	diffuse red	

33.3 arp anti-spoofing bind

Command function :

Configure the host protection function

Command format :

```
arp anti-spoofing bind ip <ip> interface [ethernet <port-list>]
no arp anti-spoofing bind ip <ip> interface [ethernet <port-list>]
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
port-list	Port list	

33.4 arp anti-spoofing gateway-disguiser

Command function :

Three layer device configuration gateway anti deception function

Command format :

```
arp anti-spoofing gateway-disguiser
no arp anti-spoofing gateway-disguiser
```

Parameter Declaration

/

33.5 arp anti-spoofing gateway-disguiser

Command function :

Two layer device configuration gateway anti spoofing function - - the command is temporarily absent.

Command format :

```
arp anti-spoofing gateway-disguiser <ip> <mac>
no arp anti-spoofing gateway-disguiser <ip> <mac>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
mac	Mac address	

33.6 arp anti-spoofing source-mac-check

Command function :

ARP message source address consistency check

Command format :

arp anti-spoofing source-mac-check
no arp anti-spoofing source-mac-checkr

Parameter Declaration

/

33.7 arp anti-attack trust

Command function :

Configuring the interface to a trust port under a physical interface

Command format :

arp anti-attack trust
no arp anti-attack trust

Parameter Declaration

/

33.8 show arp anti-spoofing

Command function :

View fraud prevention configuration

Command format :

show arp anti-spoofing

Parameter Declaration

/

33.9 show arp anti-spoofing bind

Command function :

View the protected host

Command format :

show arp anti-spoofing bind

Parameter Declaration

/

33.10 show arp anti-attack

Command function :

View the trust port

Command format :

```
show arp anti-attack [interface ethernet port-id]
```

Parameter Declaration

```
/
```

34. Anti ARP flood configuration command

34.1 arp anti-flood

Command function :

Opening arp anti-flood function

Command format :

```
arp anti-flood
no arp anti-flood
```

Parameter Declaration

```
/
```

34.2 arp anti-flood action

Command function :

Processing of ARP attack message

Command format :

```
arp anti-flood action <deny-all |deny-arp>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
deny-all	Discarding all	
deny-arp	Discarding ARP	

34.3 arp anti-flood rate-limit

Command function :

Configuring the ARP rate threshold in a global or physical interface

Command format :

```
arp anti-flood rate-limit <num>
```

no arp anti-flood rate-limit

Parameter Declaration

Parameter	Parameter Declaration	Values
	num	1-100 pps

34.4 arp anti-flood recover-time

Command function :

Configure prohibited user auto recovery time

Command format :

arp anti-flood recover-time <time>

no arp anti-flood recover-time

Parameter Declaration

Parameter	Parameter Declaration	Values
	time	0-1440 min

34.5 arp anti-flood recover

Command function :

Manual recovery prohibition of users

Command format :

arp anti-flood recover <all|mac>

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All prohibition of users	
mac	The MAC address	

corresponds to
the user

34.6 arp anti-flood bind blackhole

Command function :

The dynamic black hole generated by binding flood attacks is MAC static black hole MAC, and deny-all generates dynamic black hole Mac.

Command format :

arp anti-flood bind blackhole <all|mac>

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All dynamic black holes	
mac	MAC address corresponds to a black hole	

34.7 show arp anti-flood

Command function :

View the flood prevention configuration

Command format :

show arp anti-flood

Parameter Declaration

/

34.8 show arp anti-flood port-rate

Command function :

View the port ARP threshold

Command format :

show arp anti-flood port-rate

Parameter Declaration

/

35. Anti Dos attack configuration command

35.1 anti-dos ip ttl

Command function :

Open the anti TTL attack mode

Command format :

```
anti-dos ip ttl
no anti-dos ip ttl
```

Parameter Declaration

/

35.2 anti-dos ip fragment

Command function :

Open anti slice attack

Command format :

```
anti-dos ip fragment <num>
no anti-dos ip fragment
```

Parameter Declaration

Parameter	Parameter Declaration	Values
num	The maximum number of IP slices	0-800

35.3 anti-dos packets class

Command function :

Open a message attack

Command format :

```
anti-dos packets class < type0|type1| type2| type3| type4 <icmpv4-len>|
type5< icmpv6-len >| type6| type7| type8| type9
<tpye9-len>| type10| type11| type12| type13| type14
<tcp-len>>
no anti-dos packets class < type0|type1| type2| type3| type4| type5|
```

**type6| type7| type8| type9| type10| type11| type12|
type13| type14>**

Parameter Declaration

Parameter	Parameter Declaration	Values
type0	Source object MAC equal package	
tpye1	Source object IP equal package	
tpye2	Source destination UDP ports equal	
tpye3	Source destination TCP ports equal	
tpye4	Greater than the specified length icmpv4 package	
icmpv4-len	icmpv4 specified length	0-16384
tpye5	Greater than the specified length ICMPv6 package	
icmpv6-len	ICMPv6 specified length	0-16384
tpye6	TCP control flag, TCP package with serial number 0	
tpye7	TCP SYN is 1, Source port	
type8	number less than 1024, non slice	
type9	If it is the first message of IP fragmentation, it is necessary to turn on the function to check the high level protocol field.	
type9-len	Less than the specified length IPv6 fragment	0-65535
type10	Specified slice size	
type11	Piecewise ICMP packages	

type12	TCP fragments with offset 1 (*8)	
type13	TCP's syn and fin set 1	
type14	A TCP with FIN, URG, and PSH bits, with a sequence of 0. The first package of TCP	
tcp-len	less than the specified TCP header length	0-255

35.4 show anti-dos

Command function :

View the anti DOS configuration

Command format :

show anti-dos

Parameter Declaration

/

36.Shutdown-Control Configuration Command

36.1 shutdown-control

Command function :

Boot and configure shutdown rate in physical interface mode

Command format :

shutdown-control <broadcast |multicast|unicast> <rate>

no shutdown-control <broadcast |multicast|unicast>

Parameter Declaration

Parameter	Parameter Declaration	Values
broadcast	Radio broadcast	
multicast	Multicast	
unicast	unicast	
rate	rate	1-32000000 pps

36.2 shutdown-control-recover mode

Command function :

Global configuration recovery method

Command format :

```
shutdown-control-recover mode < automatic | manual >
no shutdown-control-recover mode
```

Parameter Declaration

Parameter	Parameter Declaration	Values
automatic	Auto recovery	
manual	Manual recovery	

36.3 shutdown-control-recover automatic-open-time

Command function :

Global configuration auto recovery time

Command format :

```
shutdown-control-recover automatic-open-time < seconds>
no shutdown-control-recover automatic-open-time
```

Parameter Declaration

Parameter	Parameter Declaration	Values
seconds		5-3600s

36.4 show shutdown-control interface

Command function :

Look at the shutdown-control configuration

Command format :

```
show shutdown-control interface [ethernet <port-list>]
```

Parameter Declaration

Parameter	Parameter	Values
-----------	-----------	--------

Declaration	
port-list	Port list

37. BPDU-Car Configuration command

37.1 port-car

Command function :

Global or under port switch

Command format :

```
port-car
no port-car
```

Parameter Declaration

```
/
```

37.2 port-car-rate

Command function :

The rate of sending CPU on the global or port configuration BPDU

Command format :

```
port-car-rate <rate>
no port-car-rate
```

Parameter Declaration

Parameter	Parameter Declaration	Values
rate		1-128 PPS in port mode 1-3000 PPS in global mode

37.3 show port-car

Command function :

View configuration information

Command format :

show port-car

Parameter Declaration

/

38.CPU-Car Configuration Command

38.1 cpu-car

Command function :

The rate of sending CPU on the global configuration

Command format :

cpu-car <rate>

no cpu-car

Parameter Declaration

Parameter	Parameter Declaration	Values
rate		1-10000 pps default : 1500pps

38.2 show cpu-car

Command function :

View the running information

Command format :

show cpu-car

Parameter Declaration

/

38.3 show cpu-statistics

Command function :

Look at the CPU collection statistics

Command format :

show cpu-statistics [ethernet <port-list>]

Parameter Declaration

Parameter	Parameter Declaration	Values
port-list	Port list	

38.4 clear cpu-statistics

Command function :

Scavenging CPU collection statistics

Command format :

clear cpu-statistics

Parameter Declaration

/

38.5 show cpu-classification

Command function :

View the CPU collection classification statistics

Command format :

show cpu-classification [interface ethernet <port-num>]

Parameter Declaration

Parameter	Parameter Declaration	Values
port-num	Port Number	

38.6 clear cpu-classification

Command function :

Scavenging CPU collection classification statistics

Command format :

clear cpu-classification [interface ethernet <port-num>]

Parameter Declaration

Parameter	Parameter Declaration	Values
port-num	Port Number	

38.7 show cpu-utilization

Command function :

Look at the CPU usage rate

Command format :

show cpu-utilization

Parameter Declaration

/

39.Discard-BPDU Configuration Command

39.1 discard-bpdu

Command function :

Global or port configuration discards BPDU messages

Command format :

discard-bpdu

no discard-bpdu

Parameter Declaration

/

39.2 show discard-bpdu

Command function :

View the running information

Command format :

show discard-bpdu

Parameter Declaration

40.Anti DHCP configuration command

40.1 dhcp anti-attack

Command function :

Anti attack function switch

Command format :

dhcp anti-attack
no dhcp anti-attack

Parameter Declaration

/

40.2 dhcp anti-attack action

Command function :

Configuration processing

Command format :

dhcp anti-attack action <deny-all |deny-dhcp >

Parameter Declaration

Parameter	Parameter Declaration	Values
deny-all	Reject all	
deny-dhcp	Refusing DHCP	

40.3 dhcp anti-attack bind blackhole

Command function :

Binding black hole mac

Command format :

dhcp anti-attack bind blackhole <all |mac >

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All	
mac	Specific mac	

40.4 dhcp anti-attack threshold

Command function :

Global or port configuration rate threshold

Command format :

```
dhcp anti-attack threshold <rate >
no dhcp anti-attack threshold
```

Parameter Declaration

Parameter	Parameter Declaration	Values
rate		1-100 pps , default : 16pps

40.5 dhcp anti-attack recover-time

Command function :

Configure auto recovery time

Command format :

```
dhcp anti-attack recover-time <time >
no dhcp anti-attack recover-time
```

Parameter Declaration

Parameter	Parameter Declaration	Values
time		0-1440 min

40.6 dhcp anti-attack recover

Command function :

Configure manual recovery

Command format :

```
dhcp anti-attack recover <all|mac >
```

Parameter Declaration

Parameter	Parameter Declaration	Values
all	All	
mac	Specific mac	

40.7 dhcp anti-attack trust

Command function :

Port configuration port is trust port

Command format :

dhcp anti-attack trust
no dhcp anti-attack trust

Parameter Declaration

/

40.8 show dhcp anti-attack

Command function :

View the running information

Command format :

show dhcp anti-attack

Parameter Declaration

/

40.9 show dhcp anti-attack interface

Command function :

View port operation

Command format :

show dhcp anti-attack interface [ethernet <port-num>]

Parameter Declaration

/

41.Muser configuration command

41.1 muser local

Command function :

Configured as local authentication

Command format :

muser local

Parameter Declaration

/

41.2 muser radius

Command function :

Configured as radius authentication

Command format :

muser radius <radius-name> < pap | chap> [account] [local|none]

Parameter Declaration

Parameter	Parameter Declaration	Values
radius-name		STRING<1-32>
pap	PAP mode	
chap	Chap mode	
account	Log in and log in time	
local	Transfer local authentication after failure	
none	Not authenticate after failure	

41.3 aaa

Command function :

Entering the AAA configuration mode

Command format :

aaa

Parameter Declaration

/

41.4 radius host

Command function :

In aaa mode, configure radius name and enter radius-name mode.

Command format :

radius host <radius-name>
no radius host [radius-name]

Parameter Declaration

Parameter	Parameter Declaration	Values
-----------	-----------------------	--------

no primary-acct-ip

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
port	Tcp port number	1-65535

41.8 second-acct-ip

Command function :

Configuration from billing server IP in radius-name mode

Command format :

second-acct-ip <ip> <port>
no second-acct-ip

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
port	Tcp port number	1-65535

41.9 auth-secret-key

Command function :

radius-name Configure the password between the authentication server and the configuration server in mode

Command format :

auth-secret-key <key>
no auth-secret-key

Parameter Declaration

Parameter	Parameter Declaration	Values
key		STRING<1-16>

41.10 acct-secret-key

Command function :

Password between configuration and billing server in radius-name mode

Command format :

acct-secret-key <key>
no acct-secret-key

Parameter Declaration

Parameter	Parameter Declaration	Values
key		STRING<1-16>

41.11 realtime-account

Command function :

Configuring billing message sending cycle in radius-name mode

Command format :

realtime-account < interval <second>>
no realtime-account

Parameter Declaration

Parameter	Parameter Declaration	Values
second		1-255s , default : 60s

41.12 preemption-time

Command function :

Configuring preemption timer in radius-name mode

Command format :

preemption-time <time>
no preemption-time

Parameter Declaration

Parameter	Parameter Declaration	Values
time		0-1440 min

41.13 username-format

Command function :

Whether or not a domain name is configured to carry a domain name in

radius-name mode

Command format :

username-format <with-domain|without-domain >

Parameter Declaration

Parameter	Parameter Declaration	Values
without-domain	Does not contain domain names	
with-domain	Include domain names	

41.14 nas-ipaddress

Command function :

NAS_IPAddress sent to RADIUS server in radius-name mode

Command format :

nas-ipaddress <ip>

no nas-ipaddress

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Nas address	

41.15 accounting-on

Command function :

Configure the number of sending billing messages in AAA mode

Command format :

accouting-on enable <num>

accouting-on disable

Parameter Declaration

/

41.16 radius 8021p

Command function :

Configuring RADIUS port priority in AAA mode

Command format :

radius 8021p enable
no radius 8021p

Parameter Declaration

/

41.17 radius accounting

Command function :

Opening radius billing function in AAA mode

Command format :

radius accounting
no radius accounting

Parameter Declaration

/

41.18 radius attribute

Command function :

Configure the sending version information of the client to the RADIUS server in AAA mode.

Command format :

radius attribute client-version
no radius attribute client-version

Parameter Declaration

/

41.19 radius bandwidth-limit

Command function :

Configuring radius port bandwidth control in AAA mode

Command format :

radius bandwidth-limit enable
no radius bandwidth-limit

Parameter Declaration

/

41.20 radius config-attribute

Command function :

Modify the radius attribute number in the AAA mode

Command format :

```
radius config-attribute access-bandwidth<downlink|unit|uplink>
|dscp|mac-address-number <vendor type>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>vendor type</i>	Attribute number	1-500

41.21 radius mac-address-number

Command function :

The number of MAC addresses for configuring the RADIUS down port under AAA mode

Command format :

```
radius mac-address-number enable
no radius mac-address-number
```

Parameter Declaration

/

41.22 radius server-disconnect

Command function :

Configuring billing message in AAA mode without responding to shutting down users

Command format :

```
radius server-disconnect drop 1x
no radius server-disconnect drop 1x
```

Parameter Declaration

/

41.23 radius vlan

Command function :

Configuring RADIUS to send port PVID under AAA mode

Command format :

```
radius vlan enable
no radius vlan
```

Parameter Declaration

/

41.24 h3c-cams

Command function :

Configuring H3C Cams compatibility features in AAA mode

Command format :

```
h3c-cams { enable | disable }
```

Parameter Declaration

/

41.25 dnrate-value

Command function :

In AAA mode, the attribute value of uplink speed is configured under the h3c-cams enable function.

Command format :

```
dnrate-value <value>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
value		1-32

41.26 uprate-value

Command function :

In AAA mode, the attribute value of uplink speed is configured under the h3c-cams enable function.

Command format :

uprate-value <value>

Parameter Declaration

Parameter	Parameter Declaration	Values
	value	1-32

41.27 domain

Command function :

Configure domain name in AAA mode and enter domain-name mode.

Command format :

domain <domain-name>

Parameter Declaration

Parameter	Parameter Declaration	Values
	domain-name	STRING<1-24>

41.28 radius host

Command function :

Domain-name mode configures binding radius-name and enters radius-name mode.

Command format :

radius host <radius-name|binding [radius-name] >
no radius host binding

Parameter Declaration

Parameter	Parameter Declaration	Values
radius-name	Radius name	STRING<1-32>
binding	entry	


```
radius-name
mode
```

41.29 scheme

Command function :

Configuration domain rules in domain-name mode

Command format :

```
scheme <local |radius [local]>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
local	local	
radius	radius	

41.30 state

Command function :

Configuration state in domain-name mode

Command format :

```
state <active |block>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
active	Active domain	
block	Inactivity	

41.31 access-limit

Command function :

Configuration access limit in domain-name mode

Command format :

```
access-limit <disable |enable <num>>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
disable	Not allow to connect	
num	Allowed access number	1-640

41.32 default domain-name

Command function :

Configuring the default domain in AAA mode

Command format :

default domain-name { **enable** *domain-name* | **disable** }

Parameter Declaration

Parameter	Parameter Declaration	Values
	domain-name	STRING<1-24>

41.33 local-user username

Command function :

Local user information is configured in AAA mode. When using local user information to authenticate, it is necessary to add relevant local user names and passwords to the system.

Command format :

local-user username *name* **password** *pwd* [**vlan** *vid*]

Parameter Declaration

Parameter	Parameter Declaration	Values
	name	1-64 length character
	pwd	1-64 length character

41.34 muser tacacs+

Command function :

Configured as tacacs+ authentication

Command format :

muser tacacs+

Parameter Declaration

/

41.35 tacacs+ encrypt-key

Command function :

Configured as tacacs+ password encrypted display

Command format :

tacacs+ encrypt-key
no tacacs+ encrypt-key

Parameter Declaration

/

41.36 tacacs+ authentication-type

Command function :

Configuring tacacs+ authentication methods

Command format :

tacacs+ authentication-type [ascii|chap|pap]
no tacacs+ authentication-type

Parameter Declaration

Parameter	Parameter Declaration	Values
ascii	Enable	
chap	chap	
pap	pap	

41.37 tacacs+ preemption-time

Command function :

Configuration server preemption timer

Command format :

tacacs+ preemption-time <time>
no tacacs+ preemption-time

Parameter Declaration

Parameter	Parameter Declaration	Values
time		0-1440 min

41.38 tacacs+ primary server

Command function :

Configuring the parameters of the master authentication server

Command format :

```
tacacs+ primary server <ip> [encrypt-key <enkey>|key <key>] [port
<num>][timeout <second>]
```

```
no tacacs+ primary server
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
enkey	Encrypted cipher	STRING<1-66>
key	enable password	STRING<1-32>
num	TCP port number	1-65535
second	timeout	1-70s default : 5s

41.39 tacacs+ secondary server

Command function :

Configuration from the authentication server parameters

Command format :

```
tacacs+ secondary server <ip> [encrypt-key <enkey>|key <key>] [port
<num>][timeout <second>]
```

```
no tacacs+ secondary server
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	Ip address	
enkey	Encrypted cipher	STRING<1-66>
key	enable password	STRING<1-32>
num	TCP port number	1-65535
second	timeout	1-70s default : 5s

41.40 muser tacacs+ []

Command function :

Configuration usage

Command format :

**muser tacacs+ [[author] [account] [command-account] [command-author]
[local] [none]]**

Parameter Declaration

Parameter	Parameter Declaration	Values
author	To grant authorization	
account	charging	
command-account	Command line billing	
command-author	Command line authorization	
local	Turn to the local	
none	Turn to none	

41.41 show muser

Command function :

Display muser information

Command format :

show muser

Parameter Declaration

/

41.42 show radius host

Command function :

Look at the information under radius-name

Command format :

show radius host [radius-name]

Parameter Declaration

/

41.43 show radius attribute

Command function :

View the radius client version properties

Command format :

show radius config-attribute

Parameter Declaration

/

41.44 show radius config-attribute

Command function :

Look at the radius configuration properties

Command format :

show radius config-attribute

Parameter Declaration

/

41.45 show tacacs+

Command function :

Look at the tacacs+ run information

Command format :

show tacacs+

Parameter Declaration

/

41.46 show rate-attribute-value

Command function :

Look at the rate property run information

Command format :

show rate-attribute-value

Parameter Declaration

/

42. Storm-Control Configuration Command

42.1 storm-suppression

Command function :

storm-suppression [broadcast | multicast | unicast] [kbps *kbps-value* | pct *pct-value* | pps *pps-value*]

Command to configure storm suppression message types and suppression thresholds in port mode.

Command format :

storm-suppression broadcast pct 1

Parameter description :

Parameter	Parameter description :	Value range
<i>kbps-value</i>	Based on the number of bytes in kbp	64-10240000
<i>pct-value</i>	Based on the percentage of port bandwidth	1-99%
<i>pps-value</i>	Based on message number	64-14881000

42.2 storm-suppression mode

Command function :

storm-suppression mode [byte | pct| pkt]

Command to configure storm suppression mode in global mode

Command format :

storm-suppression mode byte

Parameter description :

Parameter	Parameter description :	Value range
byte	Based on the number of bytes	None
pct	Based on the percentage of port bandwidth	None
pkt	Based on message number	None

42.3 no storm-suppression

Command function :

no storm-suppression [broadcast | multicast | unicast]

Command to delete storm suppression in interface mode

Command format :

no storm-suppression broadcast

Parameter description :

None

42.4 show storm-suppression

Command function :

show storm-suppression [ethernet *port-id*]

Command to show storm suppression message types and suppression

thresholds for ports

Command format :

storm-suppression ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	According to the physical port of the switch, for example, the 28 switch: 0/0/1-0/1/4

43.isolate-port Configuration command

43.1 no isolate-port uplink all

Command function :

no isolate-port uplink [all | ethernet *port-id*]

Command to delete the uplink port in port mode

Command format :

no isolate-port uplink all

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	According to the physical port of the switch, for example, the 28-port-switch:

		0/0/1-0/1/4
--	--	-------------

43.2 isolate-port uplink ethernet

Command function :

isolate-port uplink ethernet *port-id*

Command to specify specific uplink port in port mode

Command format :

isolate-port uplink ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	According to the physical port of the switch, for example, the 28-port- switch: 0/0/1-0/1/4

43.3 show isolate-port

Command function :

show isolate-port

Command to view configured isolation ports

Command format :

show isolate-port

Parameter description :

None

44.Port-security Configuration command

44.1 port-security enable|disable

Command function :

port-security enable

port-security disable

Command format :

port-security enable

port-security disable

Parameter description :

None

44.2 port-security permit|deny mac-address

Command function :

[no] port-security [permit | deny] mac-address *mac-address* [vlan-id *vlan-id* | ip-address *ip-address*]

Command to configure (delete) MAC rules

Command format :

port-security permit mac-address 2:2:2:2:2:2 ip-address 2.2.2.2

no port-security permit mac-address 2:2:2:2:2:2 ip-address 2.2.2.2

Parameter description :

Parameter	Parameter description :	Value range
<i>mac-address</i>	Unicast MAC address	128-bit binary in X:X:X:X:X:X format
<i>vlan-id</i>	VLAN id	1-4094
<i>ip-address</i>	Configurable valid IP address	32-bit binary in X:X:X:X format

44.3 show port-security mac-address

Command function :

show port-security mac-address [interface ethernet *port-id*]

Command to view the MAC rule configuration

Command format :

show port-security mac-address interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 -0 / 1 / 4

44.4 port-security permit|deny ip-address

Command function :

[no] port-security [permit | deny] ip-address *start-ip* [to *end-ip*]

Command to configure (delete) IP rules.

Command format :

port-security permit ip-address 1.1.1.1 to 2.2.2.2

no port-security permit ip-address 1.1.1.1 to 2.2.2.2

Parameter description :

Parameter	Parameter description :	Value range
<i>start-ip</i>	Configurable valid IP address	32-bit binary in X.X.X.X format
<i>end-ip</i>	Configurable valid IP address	32-bit binary in X.X.X.X format

44.5 show port-security ip-address

Command function :

show port-security ip-address [interface ethernet *port-id*]

Command to view IP rule configuration

Command format :

show port-security ip-address interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

44.6 port-security maximum

Command function :

[no] port-security maximum value

Command to configure (delete) maximum number of addresses value rule

Command format :

port-security maximum 2

no port-security maximum

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Maximum number of addresses	0-4000

44.7 port-security permit mac-address sticky

Command function :

[no] port-security permit mac-address sticky

Command to switch STICKY function

Command format :

no port-security permit mac-address sticky

Parameter description :

None

44.8 port-security permit mac-address sticky

Command function :**[no] port-security permit mac-address sticky *mac-address* [**vlan-id** *vlan-id*]**

Command to configure (delete) MAC STICKY rule.

Command format :**port-security permit mac-address sticky 2:2:2:2:2:2****no port-security permit mac-address sticky 2:2:2:2:2:2****Parameter description :**

Parameter	Parameter description :	Value range
<i>mac-address</i>	Unicast MAC address	128-bit binary in X:X:X:X:X:X format
<i>vlan-id</i>	VLAN id	1-4094

44.9 show port-security

Command function :**show port-security [interface ethernet *port-id*]**

Command to show security configuration

Command format :**show port-security interface ethernet 0/0/1****Parameter description :**

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

44.10 no port-security all

Command function :**no port-security all**

Command to delete all port security-related configurations

Command format :**no port-security all****Parameter description :**

None

44.11 show port-security active-address

Command function :

show port-security active-address [configured | learned | interface ethernet *port-id*]

Command to view the activation table entries sent down

Command format :

show port-security active-address interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

44.12 no port-security active-address

Command function :

no port-security active-address [configured | learned | all]

Command to delete the current activation table item

Command format :

no port-security active-address all

Command format :

Parameter	Parameter description :	Value range
configured	Active configuration address	None
learned	Active learning address	None
all	All active addresses	None

44.13 port-security aging static

Command function :

[no]port-security aging static

Command to configure static address aging switch

Command format :

port-security aging static

Command format :

None

44.14 port-security aging time

Command function :

[no]port-security aging time

Value command to configure (delete) port address aging time

Command format :

port-security aging time 3

Command format :

Parameter	Parameter description :	Value range
value	Aging time	3-1440

44.15 port-security violation

Command function :

[no]port-security violation [protect | restrict | shutdown]

Command to configure (delete) processing strategy for receiving illegal messages

Command format :

port-security violation protect

Command format :

Parameter	Parameter description :	Value range
protect	Discard message	None
restrict	Discard messages and alert	None
shutdown	Discard messages and alarms and disable ports	None

44.16 port-security recovery

Command function :

[no]port-security recovery

Command to configure automatic recovery function after shutdown

Command format :

port-security recovery

Command format :

None

44.17 port-security recovery time

Command function :

[no]port-security recovery time *value*

Command to configure auto recovery time after shutdown

Command format :

port-security recovery time 1

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Automatic recovery time value (minutes)	1-3660

44.18 show port-security recovery

Command function :

show port-security recovery [interface ethernet *port-id*]

Command to view the configuration for automatic recovery after shutdown

Command format :

show port-security recovery interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

45.PPPoE+ Configuration command

45.1 pppoeplus

Command function :

[no] pppoeplus
Command switches in port mode

Command format :

pppoeplus

Parameter description :

None

45.2 pppoeplus trust

Command function :

[no] pppoeplus trust
Command to configure (delete) the uplink port as a trusted port in port mode

Command format :

pppoeplus trust

Parameter description :

None

45.3 show pppoeplus interface

Command function :

show pppoeplus interface [ethernet *port-id*]
Command to configure Information View

Command format :

show pppoeplus interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

45.4 pppoeplus strategy

Command function :

[no] pppoeplus strategy [drop | keep | replace]

Command to configure (delete) options processing policy in port mode

Command format :

pppoeplus strategy drop

Parameter description :

Command	Parameter description :	Value range
drop	Discard messages with vendor-specific options	None
keep	Keep messages with vendor-specific options	None
replace	Replace the vendor-specific option content of a message	None

45.5 pppoeplus drop

Command function :

[no] pppoeplus drop [padi | pado]

Command to configure (delete) discard options processing policy in port mode

Command format :

pppoeplus drop padi

Parameter description :

Command	Parameter description :	Value range
padi	Discard PADI and PADR messages	None
pado	Discard PADO and PADS messages	None

45.6 pppoeplus type

Command function :

[no] pppoeplus type [huawei | standard | self-defined [circuit-id { [*circuit-string*]

[vlan] [port] [switch-mac] [hostname] [client-mac] } | remote-id { [*remote-string*]

[switch-mac] [hostname] [client-mac] }] Command to configure (change) the

message type

Command format :

**pppoeplus type self-defined circuit-id vlan port switch-mac hostname
client-mac string
no pppoeplus type**

Parameter description :

Command	Parameter description :	Value range
<i>circuit-string</i>	Define alphabetic string	1--63 characters
<i>remote-string</i>	Define alphabetic string	1--63 characters

45.7 pppoeplus format

Command function :

[no] pppoeplus format [binary | ascii]
Command to configure (Modify) format

Command format :

pppoeplus format binary

Parameter description :

Command	Parameter description :	Value range
ascii	Use ascii code format	None
binary	Use binary format	None

45.8 pppoeplus delimiter

Command function :

[no] pppoeplus delimiter [colon | dot | pound | slash | space]
Command to configure (modify) joint mark

Command format :

pppoeplus delimiter colon

Parameter description :

Command	Parameter description :	Value range
colon	:	None
dot	.	None
pound	#	None

slash	/	None
space		None

45.9 pppoeplus circuit-id

Command function :

[no] pppoeplus circuit-id *circuit-string*

Command configuration (modify) virtual circuit ID

Command format :

pppoeplus circuit-id string

Parameter description :

Command	Parameter description :	Value range
<i>circuit-string</i>	Custom string	1--63 Characters

46.IP-Source Configuration command

46.1 ip-source

Command function :

[no] ip-source [ip | ip-mac | ip-mac-vlan]

Command to configure (delete) filtering ways in port mode

Command format :

ip-source ip

Parameter description :

Command	Parameter description :	Value range
ip	The port filters messages only according to the source IP address of the IP message	None
ip-mac	The port filters messages according to source ip and mac	None
ip-mac-vlan	The port filters messages according to source ip, mac and vlan	None

46.2 show ip-source

Command function :

show ip-source
Command to configure Information View

Command format :

show ip-source

Parameter description :

None

46.3 ip-source bind

Command function :

[no] ip-source bind *ip-address* [*mac-address* [interface ethernet *port-id* vlan *vlan-id*]]

Command to configure (delete) bound table items

Command format :

ip-source bind 1.1.1.1 2:2:2:2:2:2 interface ethernet 0/0/1 v 1

Parameter description :

Command	Parameter description :	Value range
<i>ip-address</i>	Configurable valid IP address	32-bit binary in X.X.X.X format
<i>mac-address</i>	Configurable port mac address	48-bit binary in X:X:X:X:X:X format
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4
<i>vlan-id</i>	VLAN id	1-4094

46.4 show ip-source bind

Command function :

show ip-source bind [*ip-address*]
Command to configure (delete) bound table items

Command format :

show ip-source bind 1.1.1.1

Parameter description :

Command	Parameter description :	Value range
<i>ip-address</i>	Configure valid IP addresses	32-bit binary in X.X.X.X format

46.5 ip-source vlan

Command function :

[no] ip-source vlan *vlan-id*

Command to enable (disable) filtering function of vlan

Command format :

ip-source vlan 1

Parameter description :

Command	Parameter description :	Value range
<i>vlan-id</i>	VLAN id	1-4094

46.6 show ip-source vlan

Command function :

show ip-source vlan

Command to view configuration information

Command format :

show ip-source vlan

Parameter description :

None

46.7 ip-source permit-igmp

Command function :

[no] ip-source permit-igmp

Command to configure (delete) whether filter igmp

Command format :

ip-source vlan permit-igmp

Parameter description :

None

46.8 show ip-source permit-igmp

Command function :

show ip-source permit-igmp

Command to view configuration information

Command format :

show ip-source vlan permit-igmp

Parameter description :

None

47. IPv6-Source Configuration Command

47.1 ipv6-source-guard

Command function :

`[no] ipv6-source-guard`

Command to configure (delete) filtering way in port mode

Command format :

`ipv6-source-guard`

Parameter description :

None

47.2 show ipv6-source-guard

Command function :

`show ipv6-source-guard`

Command to configure (delete) filtering in port mode

Command format :

`show ipv6-source-guard`

Parameter description :

None

47.3 ipv6-source-guard bind ip

Command function :

`ipv6-source-guard bind ip ipv6-address [[[mac mac-address] interface ethernet port-id] vlan vlan-id]`

Command to configure (delete) bind table items in global mode

Command format :

`ipv6-source-guard bind ip 2::1 mac 2:2:2:2:2:2 interface ethernet 0/0/1 v 1`

Parameter description :

Command	Parameter description :	Value range
<i>ipv6-address</i>	Configurable valid ipv6 address	128-digit binary in the form of X: X: X: X: X: X: X: X:X format
<i>mac-address</i>	Configurable port mac address	48-digit binary in the form of X: X: X: X: X: X: X format

<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch 0 / 0 / 1 - 0 / 1 / 4
<i>vlan-id</i>	VLAN id	1-4094

47.4 show ipv6-source-guard bind

Command function :

show ipv6-source-guard bind [*ip ipv6-address*]

Command to configure (delete) bound table items in global mode

Command format :

show ipv6-source-guard bind ip 2::1

Parameter description :

Command	Parameter description :	Value range
<i>ipv6-address</i>	Configurable valid ipv6 address	128-digit binary in the form of X: X: X: X: X: X: X:X format

47.5 ipv6-source-guard vlan

Command function :

[no]ipv6-source-guard vlan *vlan-id*

Command to enable or disable filter function of vlan

Command format :

ipv6-source-guard vlan 1

Parameter description :

Command	Parameter description :	Value range
<i>vlan-id</i>	VLAN id	1-4094

47.6 show ipv6-source-guard vlan

Command function :

show ipv6-source-guard vlan

Command to view configuration information

Command format :

show ipv6-source-guard vlan

Parameter description :

None

48.802.1X Configuration command

48.1 dot1x eap-finish|eap-transfer

Command function :

dot1x [eap-finish | eap-transfer]

Command to set the protocol interaction between the system and the RADIUS server

Command format :

dot1x eap-finish

Parameter description :

Command	Parameter description :	Value range
eap-finish	EAP-finish	None
eap-transfer	EAP-transfer	None

48.2 dot1x method

Command function :

dot1x method [macbased | portbased] [interface ethernet< *interface-list*>]

Command to enable port 802.1x authentication

Command format :

dot1x method portbased interface ethernet 0/0/1

Parameter description :

Command	Parameter description :	Value range
<i>interface-list</i>	Interface list	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1- 0 / 1 / 4

48.3 dot1x port-control

Command function :

[no]dot1x port-control [auto | forceauthorized | forceunauthorized] [*interface-list*]

Command to set (delete) port control mode

Command format :

dot1x port-control auto interface ethernet 0/0/1

Parameter description :

Command	Parameter	Value range
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	description :	
<i>interface-list</i>	Interface:id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1- 0 / 1 / 4

48.4 dot1x re-authenticate

Command function :

dot1x re-authenticate [interface ethernet <interface-list>]

Command to configure do re-authenticate immediately

Command format :

dot1x re-authenticate interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 -0 / 1 / 4

48.5 dot1x re-authentication

Command function :

[no]dot1x re-authentication[interface ethernet <interface-list>]

Command to enable (disable) periodic re-authentication function of port

Command format :

dot1x re-authentication interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 -0 / 1 / 4

48.6 dot1x timeout re-authperiod

Command function :

[no]dot1x timeout re-authperiod time [interface-list]

Command to configure (delete) port periodic reauthentication time of port

Command format :

dot1x timeout re-authperiod 10 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
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<i>time</i>	Reauthentication time (seconds)	10-3600
<i>interface-list</i>	Port id	According to the physical port of the switch, for example, the -28-port- switch: 0/0/1-0/1/4

48.7 dot1x daemon

Command function :

[no]dot1x daemon [interface ethernet <interface-list>] Command to turn on (off) the watch function

Command format :

dot1x daemon interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	According to the physical port of the switch, for example, the 28-port- switch: 0/0/1-0/1/4

48.8 dot1x daemon time

Command function :

[no]dot1x daemon time *time* [interface ethernet <interface-list>]
Command to enable (restore) message send interval

Command format :

dot1x daemon time 10 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	60s by default	10-600
<i>interface-list</i>	Interface id	According to the physical port of the switch, for example, the 28-port- switch: 0/0/1-0/1/4

48.9 dot1x max-user

Command function :

[no]dot1x max-user *user-num* [interface ethernet <interface-list>]
Command to enable (delete) maximum number of authenticated users allowed

Command format :

dot1x max-user 1 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>user-num</i>	Number of users	1-100
<i>interface-list</i>	Interface id	According to the physical port of the switch, for example, the 28 switch: 0/0/1-0/1/4.

48.10 dot1x user cut

Command function :

dot1x user cut [**username** *user-name* | **mac-address** *mac-address*]

Command to delete the specified online user

Command format :

dot1x user cut mac-address 2:2:2:2:2

Parameter description :

Parameter	Parameter description :	Value range
<i>user-name</i>	Deleted user name	1-32 characters
<i>mac-addres</i>	Configure the corresponding port mac address	48-digit binary in the form of X: X: X: X: X: X

48.11 dot1x detect

Command function :

[no]dot1x detect [**interface ethernet** <*interface-list*>]

Command to enable or disable dot1x detect function.

Command format :

dot1x detect interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.12 dot1x detect interval

Command function :

[no]dot1x detect interval *time*

Command to configure (restore) detect interval time

Command format :

dot1x detect interval 2

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Detect interval time, 25S by default	1-3600

48.13 dot1x quiet-period-value

Command function :

[no]dot1x quiet-period-value *time*

Command to configure (recover) quiet period time

Command format :

dot1x quiet-period-value 2

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Quiet period time(s),0s by default	0-600

48.14 dot1x portbased host-mode

Command function :

[no]dot1x portbased host-mode [multi-hosts | single-host] [interface ethernet <interface-list>]

Command to configure (delete) host mode based on port authentication mode.

Command format :

dot1x portbased host-mode single-host interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.15 dot1x guest-vlan

Command function :

[no]dot1x guest-vlan <vlan-id> [interface ethernet <interface-list>]

Command to configure (delete) the guest VLAN of the configuration port

Command format :

dot1x guest-vlan 1 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	VLAN ID	1-4094
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28- port -switch: 0 / 0 / 1 - 0 / 1 / 4

48.16 dot1x eapol-relay

Command function :

[no]dot1x eapol-relay [interface ethernet <*interface-list*>]

Command to enable or disable EAPOL message transmission function of port.

Command format :

dot1x eapol-relay interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 / 0 / 1 / 4

48.17 dot1x eapol-relay uplink

Command function :

[no]dot1x eapol-relay uplink [interface ethernet <*interface-list*>]

Command to configure (delete) the uplink port function of EAPOL message transmission

Command format :

dot1x eapol-relay uplink interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>interface-list</i>	Interface id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 / 0 / 1 / 4

48.18 dot1x max-req

Command function :

[no]dot1x max-req <*timers*>]

When the client does not respond to the eap-request/identity message, command to configure (restore) max times of resend request eap-request/identity message.

Command format :`dot1x max-req 2`**Parameter description :**

Parameter	Parameter description :	Value range
<i>timers</i>	Maximum number of messages sent	1-10

48.19 dot1x max-reauth**Command function :**`[no]dot1x max-reauth <timers>]`

When the client does not respond to the eap-request/ md5 challenge message,command to configure (restore) max times of resend request eap-request/md5 challenge message.

Command format :`dot1x max-reauth 2`**Parameter description :**

Parameter	Parameter description :	Value range
<i>timers</i>	Maximum number of messages sent	1-10

48.20 show dot1x daemon**Command function :**`show dot1x daemon [interface ethernet port-id]`

Command to show the daemon function of 802.1x authentication port

Command format :`show dot1x daemon interface ethernet 0/0/1`**Parameter description :**

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 / 0 / 1 / 4

48.21 show dot1x interface**Command function :**

show dot1x interface [interface ethernet *port-id*]

Command to show switch port control mode, reauthentication status, reauthentication period, port allow authentication maximum number of users and so on configuration

Command format :

show dot1x interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.22 show dot1x session

Command function :

show dot1x session [{ interface ethernet *port-id* } | { mac-address *mac-address* }]

Command to show 802.1X sessions

Command format :

show dot1x session interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4
<i>mac-address</i>	Unicast MAC address	128 - bit binary in X:X:X:X:X:X format.

48.23 show dot1x eapol-relay

Command function :

show dot1x eapol-relay [interface ethernet *port-id*]

Command to View EAPOL Pass - through Configuration

Command format :

show dot1x eapol-relay interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.24 show dot1x detect

Command function :

show dot1x detect [interface ethernet *port-id*] The command displays the configuration of the heartbeat detection function

Command format :

show dot1x detect interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.25 show dot1x guest-vlan

Command function :

show dot1x guest-vlan[interface ethernet *port-id*]
Command to show guest-vlan information

Command format :

show dot1x guest-vlaninterface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

48.26 show dot1x port-auth

Command function :

show dot1x port-auth
Command to view whether current authent of port is enabled.

Command format :

show dot1x port-auth

Parameter description :

None

48.27 show dot1x quiet-period-value

Command function :

show dot1x quiet-period-value
Command to show quiet period time

Command format :

show dot1x quiet-period-value

Parameter description :

None

48.28 show dot1x

Command function :

show dot1x
Command to see if the authentication system is enabled and authentication type

Command format :

show dot1x

Parameter description :

None

48.29 show dot1x max-req

Command function :

show dot1x max-req
Command to view the maximum number of EAP-Request/ identity messages sent

Command format :

show dot1x max-req

Parameter description :

None

48.30 show dot1x max-reauth

Command function :

show dot1x max-reauth
Command to view the maximum number of EAP-Request messages sent

Command format :

show dot1x max-reauth

Parameter description :

None

49. Radius Configuration command

49.1 radius host

Command function :

[no]radius host *name*

Command to create(delete) RADIUS configuration scheme in AAA mode.

Parameter description :

Parameter	Parameter description :	Value range
<i>name</i>	Configuration scheme name	1-32 Character

49.2 primary-auth-ip

Command function :

[no]primary-auth-ip *ipaddr port*

Command to configure (delete) the primary authentication server in radius mode

Command format :

primary-auth-ip 1.1.1.1 2

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddr</i>	Configurable valid IP address	32-bit binary in X.X.X.X format
<i>port</i>	Master server authentication port	1-65535

49.3 second-auth-ip

Command function :

[no]second-auth-ip *ipaddr port*

Command to configure (delete) secondary authentication server in radius mode.

Command format :

second-auth-ip 1.1.1.1 2

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddr</i>	Configurable valid IP address	32-bit binary in X.X.X.X format

<i>port</i>	Backup server authentication port	1-65535
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49.4 primary-acct-ip

Command function :

[no]primary-acct-ip *ipaddr port*

Command to configure (delete) the primary billing server in radius mode

Command format :

primary-acct-ip 1.1.1.1 2

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddr</i>	Configurable valid IP address	32-bit binary in X.X.X.X format
<i>port</i>	Master server authentication port	1-65535

49.5 second-acct-ip

Command function :

[no]second-acct-ip *ipaddr port*

Command to configure (delete) the billing server in radius mode

Command format :

second-acct-ip 1.1.1.1 2

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddr</i>	Configurable valid IP address	32-bit binary in X.X.X.X format.
<i>port</i>	Backup server authentication port	1-65535

49.6 auth-secret-key

Command function :

[no]auth-secret-key *keystring*

Command to configure (delete) the authentication server shared key in radius mode

Command format :

auth-secret-key *keystring*

Parameter description :

Parameter	Parameter description :	Value range
<i>keysting</i>	shared key	1-16 character

49.7 acct-secret-key

Command function :

[no]acct-secret-key *keysting*

Command to configure (delete) the shared key for the billing server in radius mode

Command format :

acct-secret-key *keysting*

Parameter description :

Parameter	Parameter description :	Value range
<i>keysting</i>	shared key	1-16 Charater

49.8 nas-ipaddress

Command function :

[no]nas-ipaddress *ipaddr*

Command to configure the IP address of the radius client in radius mode

Command format :

nas-ipaddress 1.1.1.1

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddr</i>	Configurable valid IP address	32-bit binary in X.X.X.X format

49.9 username-format

Command function :

username-format [with-domain | without-domain]

Command in radius mode to set whether the user name should have a domain name when the message is delivered to the current radius server

Command format :

username-format without-domain

Parameter description :

Parameter	Parameter description :	Value range
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with-domain	User name with domain name	None
without-domain	User name without domain name	None

49.10 realtime-account

Command function :

[no]realtime-account

Command to configure (delete) real-time account in radius mode

Command format :

realtime-account

Parameter description :

None

49.11 realtime-account interval

Command function :

realtime-account interval *time*

Command to configure the real-time account send interval in radius mode

Command format :

realtime-account interval 3

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Radius server real-time account interval, unit is minute	1-255

49.12 preemption-time

Command function :

preemption-time *Preemption-time*

Command to configure preemption-time in radius mode

Command format :

preemption-time 1

Parameter description :

Parameter	Parameter description :	Value range
<i>Preemption-time</i>	Preemption time (unit is minute), 0 by default(It indicates	0-1440

	unpreemption)	
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49.13 local-user username

Command function :

[no]local-user username *name* password *pwd* [vlan *vid*]

Command to configure (delete) local user information in AAA mode

Command format :

local-user username usernamepassword pass vlan 1

Parameter description :

Parameter	Parameter description :	Value range
<i>name</i>	Local user name	1-64 characters, any character available
<i>password</i>	Local user password	1-64 characters, any character available
<i>vid</i>	VLAN id	1-4094

49.14 default domain-name

Command function :

default domain-name [enable *domain-name* | disable]

Command to configure or disable the default domain in AAA mode

Command format :

default domain-name disable

Parameter description :

Parameter	Parameter description :	Value range
<i>domain-name</i>	Default domain name	1-24 Character

49.15 domain

Command function :

[no]domain *domain-name*

Command to create (delete) a domain scheme in AAA mode

Command format :

domain domain1

Parameter description :

Parameter	Parameter description :	Value range
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<i>domain-name</i>	domain name	1-24 Character
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49.16 scheme

Command function :

scheme [local | radius [local]]

Command to configure authentication using radius server or local user information in domain mode

Command format :

scheme local

Parameter description :

None

49.17 radius host binding

Command function :

[no]radius host binding *radius-name*

Command to select (delete the radius server) for the current domain in domain mode

Command format :

radius host binding 1

Parameter description :

Parameter	Parameter description :	Value range
<i>radius-name</i>	RADIUS Configuration scheme name	1-32 character

49.18 access-limit

Command function :

access-limit [enable *number* | disable]

Command to configure (disable) the maximum number of authenticated users of current domain in domain mode

Command format :

access-limit enable 3

Parameter description :

Parameter	Parameter description :	Value range
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<i>number</i>	Number of connections allowed in the domain	1-640
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49.19 state

Command function :

state [active | block]The command activates (blocks) the current domain in domain mode

Command format :

state active

Parameter description :

None

49.20 accounting-on

Command function :

accounting-on [enable *num* | disable]

Command to configure accounting-on times in AAA mode

Command format :

accounting-on enable 33

Parameter description :

Parameter	Parameter description :	Value range
<i>num</i>	Configure the number of times of account-on sent	1-255

49.21 h3c-cams

Command function :

h3c-cams [enable | disable]

Command to configure the H3C Cams compatibility feature in AAA mode

Command format :

h3c-cams enable

Parameter description :

None

49.22 radius accounting

Command function :

[no]radius accounting

Command to enable(disable) accounting function in AAA mode.

Command format :

radius accounting

Parameter description :

None

49.23 radius server-disconnect drop 1x

Command function :

[no]radius server-disconnect drop 1x

Command to enable (disable) disconnect user while account message has no respond in AAA mode.

Command format :

radius server-disconnect drop 1x

Parameter description :

None

49.24 radius 8021p enable

Command function :

Command to enable (delete) RADIUS down port priority in AAA mode.

Command format :

radius 8021p enable

Parameter description :

None

49.25 radius vlan enable

Command function :

[no]radius vlan enable

Command to enable (delete) RADIUS down port PVID in AAA mode.

Command format :

radius vlan enable

Parameter description :

None

49.26 radius mac-address-number enable

Command function :

[no]radius mac-address-number enable

Command to enable (delete) MAC address number limits of d RADIUS down port in AAA mode.

Command format :

radius mac-address-number enable

Parameter description :

None

49.27 radius config-attribute

Command function :

Modify the radius property number in AAA Mode

Command format :

radius config-attribute access-bandwidth<downlink|unit|uplink>
|dscp|mac-address-number <vendor type>

Parameter description :

Parameter	Parameter description :	Value range
<i>vendor type</i>	Property id	1-500

49.28 radius attribute

Command function :

Configure the version information of the sending client to the radius server in AAA mode

Command format :

radius attribute client-version
no radius attribute client-version

Parameter description :

None

49.29 dnrate-value

Command function :

Command to configure uplink rate property value while enable h3c-cams enable function.

Command format :

dnrate-value <value>

Parameter description :

Parameter	Parameter description :	Value range
value		1-32

49.30 uprate-value

Command function :

Command to configure uplink rate property value while enable h3c-cam enable function in AAA mode.

Command format :

uprate-value <value>

Parameter description :

Parameter	Parameter description :	Value range
value		1-32

49.31 radius bandwidth-limit enable

Command function :

[no]radius bandwidth-limit enable

Command to enable (delete) RADIUS downlink port bandwidth control in AAA mode.

Command format :

Radius bandwidth-limit enable

Parameter description :

None

49.32 show radius attribute

Command function :

show radius attribute

Command to view the version information from the sending client to the radius server information

Command format :

show radius attribute

Parameter description :

None

49.33 show radius config-attribute

Command function :

show radius config-attribute

Command to view and show the radius property

Command format :

show radius config-attribute

Parameter description :

None

49.34 show radius host

Command function :

show radius host *hostname*

Command to show radius service configuration information

Command format :

show radius host

Parameter description :

Parameter	Parameter description :	Value range
<i>hostname</i>	Radius server name	1-32 Character

49.35 show rate-attribute-value

Command function :

View the rate property run information

Command format :

show rate-attribute-value

Parameter description :

None

49.36 show domain

Command function :

show domain [domain-name]

Command to view domain configuration.

Command format :

show domain

Parameter description :

Parameter	Parameter description :	Value range
domain-name	RadiusServer domain name	Any character except ?

50.Pvlan Configuration command

50.1 private-vlan primary

Command function :

[no]private-vlan primary

Command is used to configure (delete) the primary VLAN in vlan mode

Command format :

private-vlan primary

Parameter description :

None

50.2 private-vlan isolated

Command function :

private-vlan isolated

Command is used to configure isolated VLANs in vlan mode

Command format :

private-vlan isolated

Parameter description :

None

50.3 private-vlan community

Command function :

private-vlan community

Command is used in vlan mode to configure private-vlan community

Command format :

private-vlan community

Parameter description :

None

50.4 private-vlan association

Command function :

private-vlan association *vlan-list*

Command to configure (delete) Primary VLAN associate isolated vlan and private-vlan community

Command format :

private-vlan association 2-100

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-list</i>	Vlan id , for example : 1-100	1-4094

50.5 switchport private-vlan

Command function :

[no]switchport private-vlan[trunk | promiscuous| host]

Command is used in port mode to configure (delete) ports for promiscuous \ trunk\ host ports

Command format :

switchport private-vlan host

switchport private-vlan promiscuous 2

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	Vlan id	1-4094

50.6 show private-vlan

Command function :

show private-vlan

Command format :

show private-vlan

Parameter description :

None

50.7 show private-vlan interface

Command function :

show private-vlan interface [ethernet *port-id*]

Command format :

show private-vlan interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on physical port of Switch, for example, 28-Port Switch:0/0/1-0/1/4.

51.Muser Configuration command

51.1 muser local

Command function :

muser local

Command to configure use muser local.

Command format :

muser local

Parameter description :

None

51.2 muser radius

Command function :

muser radius *radius-name* [pap | chap] [[account] local | none]

Command to configure muser radius

Command format :

muser radius admin chap account local

Parameter description :

Parameter	Parameter description :	Value range
radius-name	Radius server name	Any character except ?

51.3 aaa

Command function :

aaa

Command to enter AAA configuration mode.

Command format :

aaa

Parameter description :

None

51.4 muser tacacs+

Command function :

muser tacacs+ [[author] [account] [command-account][command-author]
[local][none]]

Command to configure muser tacacs+.

Command format :

user tacacs+ account command-author command-account local

Parameter description :

None

51.5 show muser

Command function :

show muser

Command format :

show muser

Parameter description :

None

51.6 tacacs+ encrypt-key

Command function :

[no] tacacs+ encrypt-key

Command password encryption display function

Command format :

tacacs+ encrypt-key

Parameter description :

None

51.7 tacacs+ authentication-type**Command function :****tacacs+ authentication-type** [ascii | chap | pap]

Command configuration authentication type

Command format :**tacacs+ authentication-type** chap**Parameter description :**

None

51.8 tacacs+ primary server**Command function :****tacacs+ primary server** *ip-address* [[encrypt-key | key] *value*] [port *port-num*][timeout *time-value*]

Command to configure the tacacs master server

Command format :**tacacs+ primary server** 1.1.1.1 encrypt-key 1 port 1 timeout 1**Parameter description :**

Parameter	Parameter description :	Value range
ip-address	Tacacs+ authentication from the main server IP address	32-bit binary in X.X.X.X format
value	Key ID	Key:1-32 Character Encrypted key : 1-66 character
port-num	Port number	1-65535
time-value	Connection timeout (seconds)	1-70

51.9 tacacs+ secondary server**Command function :****tacacs+ secondary server** *ip-address* [[encrypt-key | key] *value*] [port *port-num*][timeout *time-value*]

Command to configure tacasc+ server

Command format :

tacacs+ secondary server 1.1.1.1 encrypt-key 1 port 1 timeout 1

Parameter description :

Parameter	Parameter description :	Value range
ip-address	Tacacsauthentication secondary IP address	32-bit binary in X.X.X.X format
value	Key ID	Key:1-32 character Encryptionkey : 1-66 Character
port-num	Port id	1-65535
time-value	Connection time out (s)	1-70

51.10 tacacs+ preemption-time**Command function :**

tacacs+ preemption-time value

Command to configure the master server to switch after recovery

Command format :

tacacs+ preemption-time 2

Parameter description :

Parameter	Parameter description :	Value range
value	Preemption time (unit : min), 0 by default (indicates no preemption)	0-1440

51.11 show tacacs+**Command function :**

show tacacs+

Command format :

show tacacs+

Parameter description :

None

52. Super password authentication configuration command

52.1 super password 0

Command function :

Configure cleartext passwords

Command format :

super password 0 <clear>

Parameter description :

Parameter	Parameter description :	Value range
clear	Cleartext password	STRING<1-16>

52.2 super password 7

Command function :

Configure encryption password

Command format :

super password 7 <encrypt>

Parameter description :

Parameter	Parameter description :	Value range
encrypt	encrypted password	STRING<1-16>

52.3 super password level

Command function :

Configure passwords for different levels

Command format :

super password level <id> <0 | 7 > <string >

no super password level <id>

Parameter description :

Parameter	Parameter description :	Value range
id	level	1-15
0	cleartext	
7	encryption	

string password STRING<1-16>

53.DHCP-Snooping Configuration command

53.1 dhcp-snooping

Command function :

(no) **dhcp-snooping** The dhcp-snooping command is configured in global or VLAN mode (delete the dhcp-snooping function)

Command format :

dhcp-snooping
no dhcp-snooping

Parameter description :

None

53.2 dhcp-snooping trust

Command function :

(no) **dhcp-snooping trust** Command to configure (delete) trust ports in VLAN or port mode

Command format :

dhcp-snooping trust
no dhcp-snooping trust

Parameter description :

None

53.3 dhcp-snooping fast-remove

Command function :

(no) **dhcp-snooping fast-remove** command to configure (delete) action of port while port links down

Command format :

dhcp-snooping fast-remove

Parameter description :

None

53.4 dhcp-snooping max-clients

Command function :

(no) **dhcp-snooping max-clients** *value* Command to configure (restore) the maximum number of users allowed to connect in port or vlan mode

Command format :

dhcp-snooping max-learn-num 2

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Maximum number of DHCP clients allowed	0-2048

53.5 show dhcp-snooping trust interface

Command function :

show dhcp-snooping trust interface [ethernet *port-id*]

Command format :

show dhcp-snooping trust interface

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port number	It depends on the physical port of switch, for example, 28 port switches: 0 / 0 / 1 / 0 / 1 / 4

53.6 show dhcp-snooping vlan

Command function :

show dhcp-snooping vlan *vlan-id*

Command format :

show dhcp-snooping vlan 2

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	VLAN id	1-4094

53.7 show dhcp-snooping clients

Command function :

show dhcp-snooping client table items

Command format :

show dhcp-snooping clients

Parameter description :

none

54.DHCP-Server Configuration Command

54.1 dhcp-server ip-pool

Command function :

(no) **dhcp-server ip-pool** *pool-name* command creates and deletes the ip pool and enters the ip pool configuration mode.

Command format :

dhcp-server ip-pool pool1
no dhcp-server ip-pool pool1

Parameter description :

Parameter	Parameter description :	Value range
<i>pool-name</i>	IP pool name	1-32 characters

54.2 gateway

Command function :

gateway *ip-address* **mask** *mask*

Command format :

gateway 1.1.1.1 255.255.255.0

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable and effective IP addresses	32 bit binary number, format is X:X:X:X
<i>mask</i>	Configure mask	255.0.0.0-255.255.255.252

54.3 section

Command function :

(no) section *section-id start-ip end-ip* Command to configure (delete) allocatable addresses

Command format :

section 1 1.1.1.2 1.1.1.12
no section 1

Parameter description :

Parameter	Parameter description :	Value range
<i>section-id</i>	IP address pool address number	0-7
<i>start-ip</i>	Configurable and effective IP address	32 bit binary number, format is X:X:X:X
<i>end-ip</i>	Configurable and effective IP address	32 bit binary number, format is X:X:X:X

54.4 section

Command function :

(no) section *section-id start-ip end-ip* Command to configure (delete) allocatable addresses

Command format :

section 1 1.1.1.2 1.1.1.12
no section 1

Parameter description :

Parameter	Parameter description :	Value range
<i>section-id</i>	IP address pool address number	0-7
<i>start-ip</i>	Configurable and effective IP address	32 bit binary number, format is X:X:X:X
<i>end-ip</i>	Configurable and effective IP address	32 bit binary number, format is X:X:X:X

54.5 forbidden-ip

Command function :

(no) forbidden-ip *ip-address* command configure (delete) whether allow the ip address to be assigned

Command format :

forbidden-ip 1.1.1.1
no forbidden-ip 1.1.1.1

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable and effective IP addresses	32 bit binary number, format is X:X:X:X

54.6 router

Command function :

(no) **router** *ip-address* command to configure (delete)gateway allowed by DHCP Client

Command format :

router 1.1.1.1
no router

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable and effective IP addresses	32 bit binary number, format is X:X:X:X

54.7 show dhcp-server ip-pool

Command function :

show dhcp-server ip-pool [*brief* | [*pool-name*] *section-id*] Command to view the configured ip pool

Command format :

show dhcp-server ip-pool pool1 1

Parameter description :

Parameter	Parameter description :	Value range
<i>pool-name</i>	IP-pool name	1-32 character
<i>section-id</i>	IP Address pool address number	0-7

54.8 show dhcp-server clients

Command function :

show dhcp-server clients [*ip-address* [*mask*] | *pool-name* | *mac-address*]
 Command to view the ip address information obtained by the client

Command format :

show dhcp-server clients

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable and effective IP addresses	32 bit binary number, format is X:X:X
<i>mask</i>	Configure mask	255.0.0.0-255.255.255.252
<i>pool-name</i>	IP-pool name	1-32 characters
<i>mac-address</i>	MAC address	128 bit binary number, format is X:X:X:X:X:X

54.9 dhcp-client bind

Command function :

(no) **dhcp-client bind** *ip-address mac-address vlan-id* Command to enable (disable) ip address allocation in static bind way.

Command format :

dhcp-client bind 1.1.1.1 00:00:00:00:00:06 3
no dhcp-client bind 00:00:00:00:00:06 3

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable valid IP address	32 bit binary number, format is X:X:X:X
<i>mac-address</i>	MAC address	128 bit binary number, format is X:X:X:X
<i>vlan-id</i>	VLAN id	1-4094

54.10 dhcp-client unbind-assign

Command function :

(no)**dhcp-client unbind-assign** Command to enable (disable) whether allow allocate ip address for unbound user

Command format :

dhcp-client unbind-assign

Parameter description :

None

54.11 show dhcp-client bind

Command function :

show dhcp-client bind [*ip-address* | *mac-address* | **all**] **Command to see if unbound users are allowed to assign ip addresses**

Command format :

show dhcp-client bind 00:00:00:00:00:06

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable valid IP address	32 bit binary number, format is X:X:X:X
<i>mac-address</i>	MAC Address	128 bit binary number, format is X:X:X:X:X:X

54.12 dns-list

Command function :

(no)dns-list [*primary-ip* | *second-ip* | *third-ip* | *fourth-ip*] *ip-address* **Command to configure (delete) the DNS server address assigned to the DHCP client**

Command format :

dns-list fourth-ip 1.1.1.1
no dns-list fourth-ip

Parameter description :

Parameter	Parameter description :	Value range
<i>ip-address</i>	Configurable valid IP address	32 bit binary number, format is X:X:X:X

54.13 nbns-list

Command function :

(no) nbns-list [*primary-ip* | *second-ip*] *ip-address* **Command to configure(delete) WINS server address assigned by the DHCP client**

Command format :

nbns-list second-ip 1.1.1.1
no nbns-list second-ip

Parameter description :

Parameter	Parameter description :	Value range
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<i>ip-address</i>	Configurable valid IP address	32 bit binary number, format is X:X:X:X
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54.14 dhcp-option43

Command function :

(no) **dhcp-option43** [**ascii** *ascii -value* | **hex** *hex-value*] *ip-address* Command to configure (delete) DHCP Custom option 43

Command format :

dhcp-option43 *ascii string*
no dhcp-option43

Parameter description :

Parameter	Parameter description :	Value range
<i>ascii -value</i>	ASCII content for DHCP option 43	1-64 Characters
<i>hex-value</i>	HEX content for DHCP option 43	0-FF

54.15 show dhcp-server

Command function :

show dhcp-server command to view dhcp server information

Command format :

show dhcp-server

Parameter description :

none

55.DHCP-Relay Configuration Command

55.1 dhcp-relay

Command function :

(no) **dhcp-relay** command switch DHCP relay function

Command format :

dhcp-relay
no dhcp-relay

Parameter description :

none

55.2 dhcp-relay hide server-ip

Command function :

(no) **dhcp-relay hide server-ip** Command to enable(disable) IP of Real DHCP Serve

Command format :

dhcp-relay hide server-ip
no dhcp-relay hide server-ip

Parameter description :

None

55.3 dhcp-relay max-hops

Command function :

(no) **dhcp-relay max-hops** *hops-value* command to configure (delete) the maximum number of hops of the DHCP message

Command format :

dhcp-relay max-hops 1
no dhcp-relay max-hops

Parameter description :

Parameter	Parameter description :	Value range
<i>hops-value</i>	default to 8 hops	1-16

55.4 dhcp-relay source-ip

Command function :

dhcp-relay source-ip [egress | ingress] Command to configure the relay message using the source IP

Command format :

dhcp-relay source-ip egress

Parameter description :

Parameter	Parameter description :	Value range
egress	Server IP address egress	none
ingress	Server IP address ingress	none

55.5 show dhcp-relay

Command function :

show dhcp-relay information

Command format :

show dhcp-relay

Parameter description :

None

56.DHCP Option82 Configuration Command

56.1 dhcp option82

Command function :

(no) dhcp option82 Command global switch

Command format :

dhcp option82

Parameter description :

none

56.2 dhcp option82 device-id

Command function :

(no) dhcp option82 device-id Command to configure (Delete) whether Suboption has Device number information

Command format :

dhcp option82 device-id

Parameter description :

None

56.3 show dhcp option82

Command function :

show dhcp option82 [vlan [*vlan-id*] | interface ethernet *port-id*]

Command format :

show dhcp-option82 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	vlan id	1-4094
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28 port switch: 0 / 0 / 1 / - 0 / 1 / 4

56.4 dhcp-option82 format

Command function :

dhcp-option82 format [normal | verbose| user-defined] Command to configure (delete) DHCP option82 format.

Command format :

dhcp-option82 format user-defined

Parameter description :

none

56.5 dhcp-option82 format verbose

Command function :

dhcp-option82 format verbose [user-defined *defined -string*] Command to configure (delete)user-defined format of verbose format

Command format :

dhcp-option82 format user-defined verbose user-defined string

Parameter description :

Parameter	Parameter description :	Value range
<i>defined -string</i>	User-defined format number	1-128 characters

56.6 dhcp-option82 information format

Command function :

dhcp-option82 information format [ascii *vlan-list*| hex *defined -string*] command to configure(delete) encapsulation format of verbose format

Command format :

dhcp-option82 information format ascii 3

no dhcp-option82 information format

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-list</i>	Vlan list, Such as:8,9,11-15	1-56 characters

<i>defined -string</i>	User-defined format number	1-128 characters
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56.7 dhcp-option82 strategy

Command function :

dhcp-option82 strategy [drop | keep | replace] Command to configure (delete) process mode of DHCP messages with Option 82 fields in port or VLAN mode

Command format :

dhcp-option82 strategy replace
no dhcp-option82 strategy

Parameter description :

Parameter	Parameter description :	Value range
drop	Discard messages from DHCPoption 82	none
keep	Keep the message for DHCP option 82	none
replace	Replace messages with DHCPoption 82	none

56.8 dhcp-option82 circuit-id user-defined

Command function :

dhcp-option82 circuit-id user-defined Command to configure (delete) user-defined circuit-id in port or VLAN mode

Command format :

dhcp-option82 circuit-id user-defined string
no dhcp-option82 circuit-id user-defined

Parameter description :

Parameter	Parameter description :	Value range
<i>string</i>	User-defined format number	1-128 characters

56.9 dhcp-option82 remote-id user-defined

Command function :

dhcp-option82 remote-id user-defined *string* Command to configure(delete) user-defined remote-id in port or VLAN mode

Command format :**dhcp-option82 remote-id user-defined string****no dhcp-option82 remote-id user-defined****Parameter description :**

Parameter	Parameter description :	Value range
<i>string</i>	User-defined format number	1-128 characters

57.DHCP Option60 Configuration Command

57.1 dhcp-option60

Command function :**(no) dhcp option60 [equals | starts-with] [*ascii* *ascii -value* | *hex* *hex-value*]]***ip-address* [*server-id* [**server-reply** [*ascii* *ascii -value* | *hex* *hex-value*]]] Command to configure (delete) option60 of interface.**Command format :****dhcp-option43 *ascii* string****no dhcp-option43****Parameter description :**

Parameter	Parameter description :	Value range
<i>ascii -value</i>	ASCII content for DHCP option 60	1-50 hexadecimal character
<i>hex-value</i>	HEX content for DHCP option 60	1-50 hexadecimal character
<i>ip-address</i>	Configurable valid IP address	32-bit binary number, Format is X:X:X:X
<i>server-id</i>	DHCP server group array	1-256

57.2 show dhcp-option60

Command function :

show dhcp-option60 [interface [vlan-interface *vlan-id* | supervlan-interface *supervlan-id*]]

Command to view the option 60 configuration information

Command format :

show dhcp-option60 interface supervlan-interface 1

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	VLAN id	1-4094
<i>supervlan-id</i>	superVLAN Interface ID	1-128

58.DHCPv6-Snooping Configuration Command

58.1 dhcpv6-snooping

Command function :

(no) **dhcpv6-snooping**

Command format :

dhcpv6-snooping
no dhcpv6-snooping

Parameter description :

None

58.2 dhcpv6-snooping trust

Command function :

(no) **dhcpv6-snooping trust** Command to configure (delete) trust port in VLAN or port mode.

Command format :

dhcpv6-snooping trust
no dhcpv6-snooping trust

Parameter description :

None

58.3 dhcpv6-snooping port-down-action fast-remove

Command function :

(no) dhcpv6-snooping port-down-action fast-remove Command to configure (delete) action of port while it links down.

Command format :

dhcpv6-snooping port-down-action fast-remove

Parameter description :

None

58.4 dhcpv6-snooping max-clients

Command function :

(no) dhcpv6-snooping max-clients *value* Command to configure (restore) the maximum number of users allowed to connect in port or vlan mode

Command format :

dhcpv6-snooping max-learn-num 2

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Maximum number of DHCP clients allowed	0-2048

58.5 show dhcpv6-snooping clients

Command function :

show dhcpv6-snooping client
Command to view a client table entry for dhcpv6-snooping

Command format :

show dhcpv6-snooping clients

Parameter description :

None

58.6 show dhcpv6-snooping interface

Command function :

show dhcpv6-snooping interface [ethernet *port-id*]

Command format :

show dhcpv6-snooping interface

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / - 0 / 1 / 4

58.7 show dhcpv6-snooping vlan

Command function :

`show dhcpv6-snooping vlan vlan-id`

Command format :

`show dhcpv6-snooping vlan 2`

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	VLAN id	1-4094

58.8 clear dhcpv6-snooping

Command function :

`clear dhcpv6-snooping [ip ipv6-address | mac mac | vlan vid | interface ethernet port-id]` Command to delete dynamic table entries from DHCPv6 Snooping records

Command format :

`clear dhcpv6-snooping ip 2::1`

Parameter description :

Parameter	Parameter description :	Value range
<i>ipv6-address</i>	a valid ipv6 address can be configured	128-bit binary in X:X:X:X:X:X:X format
<i>mac</i>	Mac address	48-bit binary in X:X:X:X:X:X format
<i>vid</i>	VLAN id	1-4094
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / - 0 / 1 / 4

59.DHCPv6 Option18 configuration command

59.1 dhcpv6-snooping information option 18

Command function :

(no) dhcpv6-snooping information option 18 Command to enable (disable)
DHCPV6 Option18

Command format :

dhcpv6-snooping information option 18
no dhcpv6-snooping information option 18

Parameter description :

None

59.2 show dhcpv6-snooping information

Command function :

show dhcpv6-snooping information command to show DHCPV6 Option18

Command format :

show dhcpv6-snooping information

Parameter description :

None

60.DHCPv6 Option37 Configuration command

60.1 dhcpv6-snooping information option 37

Command function :

(no) dhcpv6-snooping information option 37 command to enable (disable)
DHCPV6 Option37

Command format :

dhcpv6-snooping information option 37
no dhcpv6-snooping information option 37

Parameter description :

None

60.2 dhcpv6-snooping information remote-id

Command function :

(no) dhcpv6-snooping information remote-id [hostname | ipv4-address
 ipv4-address| ipv6-address ipv6-address| string string | user-defined user-defined]
 Command to enable (disable) DHCPv6 Remote ID content.

Command format :

dhcpv6-snooping information remote-id ipv6-address 1::1
 no dhcpv6-snooping information remote-id

Parameter description :

Parameter	Parameter description :	Value
hostname	hostname	none
ipv4-address	Configurable valid IP address	32-bit binary in X:X:X:X format
ipv6-address	Configurable valid IPv6 address	128-bit binary in X:X:X:X:X:X:X:X format
string	User-defined string	1--64 Character
user-defined	Use-defined format alphabetic string	1--128 Character

60.3 show dhcpv6-snooping information

Command function :

show dhcpv6-snooping information Command to show DHCPv6 Option37

Command format :

show dhcpv6-snooping information

Parameter description :

None

61.IPv4 IF-Vlan Interface configuration

command

61.1 interface vlan-interface

Command function :

(no)interface vlan-interface vid Command to configure or delete a normal VLAN interface

Command format :

interface vlan-interface 1
no interface vlan-interface 1

Parameter description :

Parameter	Parameter description :	Value range
vid	VLAN id	1-4094

61.2 ip address

Command function :

(no)ip address [ipaddress| primary] mask override Command to configure or delete the IP address of a normal VLAN interface

Command format :

ip address 1.1.1.1 255.255.255.0
ip address 1.1.1.1 255.255.255.0 override
ip address primary 1.1.1.1
no ip address
no ip address 1.1.1.1 255.255.255.0

Parameter description :

Parameter	Parameter description :	Value range
ipaddress	Configurable valid IP address	32-bit binary in X:X:X:X format
primary	Configure the IP address as the primary address	None
mask	Configure interface mask	255.0.0.0-255.255.255.252
override	Override the IP address of the main interface	None

61.3 ip address range

Command function :

(no)ip address range start-ipadd end-ipadd Command to configure or delete the IP address range of a normal VLAN interface

Command format :

ip address range 1.1.1.1 1.1.1.2
no ip address range
no ip address range 1.1.1.1 1.1.1.2

Parameter description :

Parameter	Parameter description :	Value range
start-ipadd	Configurable valid IP address	32-bit binary in X:X:X:X format
end-ipadd	Configurable valid IP address, end-ipadd>=start-ipadd	32-bit binary in X:X:X:X format

61.4 ip icmp unreachable

Command function :

(no)ip icmp unreachable Command to configure or delete icmp unreachable

Command format :

ip icmp unreachable
no ip icmp unreachable

Parameter description :

None

61.5 description

Command function :

(no)description *string* Command to add or delete interface description information

Command format :

(no)description vlan1

Parameter description :

Parameter	Parameter description :	Value range
string	Description information	Any characters except ? , Space need to add double quotation marks

61.6 shutdown

Command function :

(no)shutdown Command switch interface, enable by default

Command format :

(no)shutdown

Parameter description :

None

61.7 show ip interface

Command function :

show ip interface *vlan-interface* Command to view interface configuration IP address information

Command format :

show ip interface *vlan-interface* 1

Parameter description :

Parameter	Parameter description :	Value range
vlan-interface	Vlan interface	1-4094

62.IPv4 SuperVlanInterface configuration command

62.1 interface supervlan-interface

Command function :

(no)interface supervlan-interface *vid* Command to configure or delete a normal supervlan interface

Command format :

interface supervlan-interface 1
no interface supervlan-interface 1

Parameter description :

Parameter	Parameter description :	Value range
vid	VLAN id	1-4094

62.2 subvlan

Command function :

(no)subvlan [*vid*] *vlan-list* Command to configure or delete an supervlan subordinate subvlan

Command format :

subvlan 2,3,4-10

Parameter description :

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

vid	vlan-list	1-4094
vlan-list	VLAN id	Numeric string, case-insensitive, not support space, the length range is 1-128. String range is 1-4094

62.3 ip address

Command function :

(no)ip address [*ipaddress* | *primary*] *mask* override Command to configure or delete the IP address of normal VLAN interface.

Command format :

ip address 1.1.1.1 255.255.255.0
 ip address 1.1.1.1 255.255.255.0 override
 ip address primary 1.1.1.1
 no ip address
 no ip address 1.1.1.1 255.255.255.0

Parameter description :

Parameter	Parameter description :	Value range
ipaddress	Configurable valid IP address	32-bit binary in X:X:X:X format
primary	Configure the IP address as the primary address	None
mask	Configure interface mask	255.0.0.0-255.255.255.252
override	Override the IP address of the main interface	None

62.4 ip address range

Command function :

(no)ip address range *start-ipadd end-ipadd* Command to configure or delete the IP address range of a normal VLAN interface.

Command format :

ip address range 1.1.1.1 1.1.1.2
 no ip address range
 no ip address range 1.1.1.1 1.1.1.2

Parameter description :

Parameter	Parameter description :	Value range
start-ipadd	Configurable valid IP address	32-bit binary in X:X:X:X format
end-ipadd	Configurable	32-bit binary in X:X:X:X format

	valid IP address,end-ipa dd>=start-ipadd	
--	--	--

62.5 ip icmp unreachable

Command function :

(no)ip icmp unreachable Command to configure or delete icmp unreachable

Command format :

ip icmp unreachable
no ip icmp unreachable

Parameter description :

None

62.6 description

Command function :

(no)description *string* Command to add or delete interface description information.

Command format :

(no)description vlan1

Parameter description :

Parameter	Parameter description :	Value range
string	description information	Any characters except ? , Space need to add double quotation marks

62.7 shutdown

Command function :

(no)shutdown Command switch interface,enable by fault

Command format :

(no)shutdown

Parameter description :

none

62.8 show ip interface

Command function :

show ip interface *supervlan-interface* Command to view interface configuration
IP address

Information.

Command format :

show ip interface supervlan-interface 1

Parameter description :

Parameter	Parameter description :	Value range
supervlan-interface	Supervlan interface	1-128

63. IPv4 Loopback interface configuration command

63.1 interface loopback-interface

Command function :

(no)interface loopback-interface <0-1> Command to configure or delete loopback-interface

interface loopback-interface 0
no interface loopback-interface 0

Command format :

None

63.2 ip address

Command function :

(no)ip address [ipaddress| primary] mask override Command to configure or delete the IP address of a normal VLAN interface

Command format :

ip address 1.1.1.1 255.255.255.0
ip address 1.1.1.1 255.255.255.0 override
ip address primary 1.1.1.1
no ip address
no ip address 1.1.1.1 255.255.255.0

Parameter description :

Parameter	Parameter description :	Value range
ipaddress	Configurable valid IP address	32-bit binary in X:X:X:X format
primary	Configure the IP	None

	address as the primary address	
mask	Configure interface mask	255.0.0.0-255.255.255.252
override	Override the IP address of the main interface	None

63.3 show ip interface

Command function :

show ip interface *loopback-interface* Command to view interface configuration
IP address information

Command format :

show ip interface loopback-interface 1

Parameter description :

Parameter	Parameter description :	Value range
loopback-interface	Loopback interface	0-1

64. IPv6 IF-VlanInterface configuration command

64.1 ipv6 address

Command function :

(no)ipv6 address [*ipv6-address*]*prefix-length* eui-64 command to configure or delete local and

global unicast addresses for configuration sites in EUI-64 format of interface.

(no)ipv6 address [*ipv6-address*]*prefix-length* Command to configure or delete interface manual and global unicast addresses

(no)ipv6 address autoconfig command to configure or delete interface Specify site local address and global unicast address automatically.

(no)ipv6 address *ipv6-address* link-local Command to configure or delete manually specified link local addresses

Command format :

ipv6 address 2001::1/64 eui-64

no ipv6 address 2001::1/64 eui-64

ipv6 address autoconfig

no ipv6 address autoconfig

ipv6 address fe91::11 link-local
 no ipv6 address fe91::11 link-local

Parameter description :

Parameter	Parameter description :	Value range
ipv6address	Configurable valid IPv6 addresses	128-bit binary in X:X:X:X:X:X:X format
prefix-length	Ipv6 address mask	1-128

64.2 ipv6 neighbors max-learning-num

Command function :

(no)ipv6 neighbors max-learning-num *number* Command to configure or delete the number of neighbor caches

Command format :

ipv6 neighbors max-learning-num 2
 no ipv6 neighbors max-learning-num

Parameter description :

Parameter	Parameter description :	Value
number	Neighbor cache number	1-2560

64.3 ipv6 nd ns retrans-timer

Command function :

(no)ipv6 nd ns retrans-timer *value*

Command format :

ipv6 nd ns retrans-timer 20
 no ipv6 nd ns retrans-timer

Parameter description :

Parameter	Parameter description :	Value
value	Retransmission interval	1-3600

64.4 ipv6 nd dad attempts value

Command function :

(no)ipv6 nd dad attempts *value* Command to configure or delete times of sending neighbor request message while repeat address detects.

Command format :

ipv6 nd dad attempts 20

no ipv6 nd dad attempts

Parameter description :

Parameter	Parameter description :	Value
value	DAD times	0-20

64.5 ipv6 nd reachable-time

Command function :

(no)ipv6 nd reachable-time *value* Command to configure or delete the time to keep neighbor reachable

Command format :

ipv6 nd reachable-time 2
no ipv6 nd reachable-time

Parameter description :

Parameter	Parameter description :	Value range
value	reachable time	1-3600

64.6 ipv6 pathmtu value

Command function :

(no)ipv6 pathmtu *value* command to configure or delete ipv6 pathmtu

Command format :

ipv6 pathmtu 1280
no ipv6 pathmtu

Parameter description :

Parameter	Parameter description :	Value range
value	ipv6 pathmtu	1280-1500

64.7 ipv6 nd ra halt

Command function :

(no)ipv6 nd ra halt

Command format :

ipv6 nd ra halt

Parameter description :

None

64.8 ipv6 nd ra hop-limit

Command function :

(no)ipv6 nd ra hop-limit *value*

Command format :

ipv6 nd ra hop-limit 2

Parameter description :

Parameter	Parameter description :	Value range
value	Number restriction	0-255

64.9 ipv6 nd ra interval

Command function :

(no)ipv6 nd ra interval *max-interval min-interval*

Command format :

ipv6 nd ra interval 4 4

Parameter description :

Parameter	Parameter description :	Value range
max-interval	max-interval	4-1800
min-interval	min-interval	3-1350

64.10 ipv6 nd ra prefix

Command function :

(no)ipv6 nd ra prefix *prefix-name ipv6-address valid-lifetime preferred-lifetime*

[no-autoconfig | off-link] Command to configure or delete router notification address prefix

Command format :

ipv6 nd ra interval 4 4

Parameter description :

Parameter	Parameter description :	Value range
prefix-nam	prefix-nam	1-32 characters
ipv6address	ipv6address	128-bit binary in X:X:X:X:X:X:X:X format
valid-lifetime	valid-lifetime	0-4294967295
preferred-lifetime	Select time	0-4294967295
no-autoconfig	Affix cannot be used for automatic address configuration	none
off-link	Prefix cannot be used for detection on link	none

64.11 ipv6 nd ra router-lifetime

Command function :

(no)ipv6 nd ra router-lifetime *value*

Command format :

ipv6 nd ra router-lifetime 4

Parameter description :

Parameter	Parameter description :	Value range
router-lifetime	router-lifetime	0-9000

64.12 show ipv6 interface

Command function :

show ipv6 interface [*vlan-inter* |*supervlan-inte*|*loopback-inter*]

Command format :

show ipv6 interface *vlan-interface* 1

show ipv6 interface *supervlan-interface* 1

show ipv6 interface *loopback-interface* 1

Parameter description :

Parameter	Parameter description :	Value range
supervlan-inter	Supervlan interface	1-128
loopback-inter	Loopback interface	0-1
vlan-inter	Vlan interface	1-4094

64.13 show ipv6 neighbors

Command function :

show ipv6 neighbors [*ipv6-add* |all | *dynamic*| *static*|*mac mac-add* |
max-learning-num]

Command format :

show ipv6 neighbors all

Parameter description :

Parameter	Parameter description :	Value range
mac-add	Configure port mac address	48-bit binary in X:X:X:X:X:X format

64.14 show ipv6 nd dad attemps

Command function :

show ipv6 nd dad attemps

Command format :

show ipv6 nd dad attemps

Parameter description :

None

64.15 show ipv6 nd ns retrans-time

Command function :

show ipv6 nd ns retrans-time

Command format :

show ipv6 nd ns retrans-time

Parameter description :

none

64.16 show ipv6 nd reachable-time

Command function :

show ipv6 nd reachable-time

Command format :

show ipv6 nd reachable-time

Parameter description :

None

64.17 show ipv6 route

Command function :

show ipv6 route

Command format :

show ipv6 route

Parameter description :

None

65.IPv6 SuperVlanInterface configuration command

65.1 ipv6 address

Command function :

(no)ipv6 address [*ipv6-address*]*[prefix-length]* **eui-64** Command to configure or delete the local address and global unicast addresses of configuration sites in EUI-64 format of interface.

(no)ipv6 address [*ipv6-address*]*[prefix-length]* Command to configure or delete interface manual and global unicast addresses

(no)ipv6 address autoconfig command to configure or delete interface Specify site local address and global unicast address automatically.

(no)ipv6 address *ipv6-address* **link-local** Command to configure or delete manually specified link local addresses

Command format :

```

ipv6 address 2001::1/64 eui-64
no ipv6 address 2001::1/64 eui-64
ipv6 address autoconfig
no ipv6 address autoconfig
ipv6 address fe91::11 link-local
no ipv6 address fe91::11 link-local

```

Parameter description :

Parameter	Parameter description :	Value range
ipv6address	Configurable valid ipv6 address	128-bit binary in X:X:X:X:X:X:X format
prefix-length	Ipv6 address mask	1-128

65.2 ipv6 neighbors max-learning-num

Command function :

(no)ipv6 neighbors max-learning-num *number*

Command format :

```

ipv6 neighbors max-learning-num 2
no ipv6 neighbors max-learning-num

```

Parameter description :

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

number	Neighbor cache number	1-2560
--------	-----------------------	--------

65.3 ipv6 nd ns retrans-timer

Command function :

(no)ipv6 nd ns retrans-timer *value*

Command format :

ipv6 nd ns retrans-timer 20

no ipv6 nd ns retrans-timer

Parameter description :

Parameter	Parameter description :	Value range
value	Retransmission interval	1-3600

65.4 ipv6 nd dad attempts value

Command function :

(no)ipv6 nd dad attempts *value*

Command format :

ipv6 nd dad attempts 20

no ipv6 nd dad attempts

Parameter description :

Parameter	Parameter description :	Value range
value	DAD number of times	0-20

65.5 ipv6 nd reachable-time

Command function :

(no)ipv6 nd reachable-time *value* Command to configure or delete the time to keep neighbor reachable

Command format :

ipv6 nd reachable-time 2

no ipv6 nd reachable-time

Parameter description :

Parameter	Parameter description :	Value range
value	Reachable time	1-3600

65.6 ipv6 pathmtu value

Command function :

(no)ipv6 pathmtu *value*

Command format :

ipv6 pathmtu 1280

no ipv6 pathmtu

Parameter description :

Parameter	Parameter description :	Value range
value	Maximum transmission unit value	1280-1500

65.7 ipv6 nd ra halt

Command function :

(no)ipv6 nd ra halt

Parameter description :

ipv6 nd ra halt

Parameter description :

None

65.8 ipv6 nd ra hop-limit

Command function :

(no)ipv6 nd ra hop-limit *value*

Command format :

ipv6 nd ra hop-limit 2

Parameter description :

Parameter	Parameter description :	Value range
value	Number restriction	0-255

65.9 ipv6 nd ra interval

Command function :

(no)ipv6 nd ra interval *max-interval min-interval*

Command format :

ipv6 nd ra interval 4 4

Parameter description :

Parameter	Parameter description :	Value range
max-interval	max-interval	4-1800
min-interval	min-interval	3-1350

65.10 ipv6 nd ra prefix

Command function :

(no)ipv6 nd ra prefix *prefix-name ipv6-address valid-lifetime preferred-lifetime*
 [no-autoconfig | off-link] Command to configure or delete router notification
 address prefix

Command format :

ipv6 nd ra interval 4 4

Parameter description :

Parameter	Parameter description :	Value range
prefix-name	Prefix identification name	1-32 character
ipv6address	Configurable valid ipv6 address	128-bit binary in X:X:X:X:X:X:X:X format
valid-lifetime	Valid life time	0-4294967295
preferred-lifetime	Select time	0-4294967295
no-autoconfig	Affix cannot be used for automatic address configuration	none
off-link	Prefix cannot be used for detection on link	none

65.11 ipv6 nd ra router-lifetime

Command function :

(no)ipv6 nd ra router-lifetime *value* Command to configure or delete Router notification lifecycle.

Command format :

ipv6 nd ra router-lifetime 4

Parameter description :

Parameter	Parameter description :	Value range
router-lifetime	Router time	0-9000

65.12 show ipv6 interface

Command function :

show ipv6 interface [*vlan-inter* | *supervlan-inte* | *loopback-inter*]

Command format :

show ipv6 interface **vlan-interface 1**
show ipv6 interface **supervlan-interface 1**
show ipv6 interface **loopback-interface 1**

Parameter description :

Parameter	Parameter description :	Value range
supervlan-inter	Supervlan interface	1-128
loopback-inter	Loopback interface	0-1
vlan-inter	Vlan interface	1-4094

65.13 show ipv6 neighbors

Command function :

show ipv6 neighbors [*ipv6-add* | *all* | *dynamic* | *static* | *mac mac-add* | *max-learning-num*]

Command to view ipv6 interface neighbor table items

Command format :

show ipv6 neighbors **all**

Parameter description :

Parameter	Parameter description :	Value range
mac-add	Configure port mac address	48-bit binary in X:X:X:X:X:X format

65.14 show ipv6 nd dad attemps

Command function :

show ipv6 nd dad attemps command to view number of times of sending neighbor request message when repeat address detect

Command format :

show ipv6 nd dad attemps

Parameter description :

None

65.15 show ipv6 nd ns retrans-time

Command function :

`show ipv6 nd ns retrans-time`

Command format :

`show ipv6 nd ns retrans-time`

Parameter description :

None

65.16 show ipv6 nd reachable-time

Command function :

`show ipv6 nd reachable-time` Command to view the time that keep neighborhood reachable state

Command format :

`show ipv6 nd reachable-time`

Parameter description :

None

65.17 show ipv6 route

Command function :

`show ipv6 route` Command to view the ipv6 routing table

Command format :

`show ipv6 route`

Parameter description :

None

66.ARP Learning configuration command

66.1 arp <ip> <mac>

Command function :

Configure arp short static tables

Command format :

`arp <ip> <mac>`

Parameter description :

Parameter	Parameter description :	Value
ip	IP Address	
mac	Mac Address	

66.2 arp <ip> <mac> vlan <vlan-id>**Command function :**

Configure arp long static tables

Command format :

arp <ip> <mac> **vlan** <vlan-id> [**interface ethernet** <port-id>]

Parameter description :

Parameter	Parameter description :	Value
ip	IP Address	
mac	Mac Address	
vlan-id	Vlan ID	
port-id	Port ID	

66.3 arp aging-time**Command function :**

Configuring arp aging-time

Command format :

arp aging-time <time >

no arp aging-time

Parameter description :

Parameter	Parameter description :	Value
time		3-2880 minutes

66.4 arp peer**Command function :**

Configure arp peer

arp peer <ip > <mac> <ethernet <port-num>>

no arp peer

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
ip	IP Address	
mac	Mac Address	
port-num	Port ID	

66.5 arp bind dynamic

Command function :

Configure dynamic arp to static arp

Command format :

arp bind dynamic <ip|all >

Parameter description :

Parameter	Parameter description :	Value
ip	IP Address	
all	All dynamic arp	

66.6 no arp

Command function :

Delete the arp table

Command format :

no arp < dynamic | static | all | ip>

Parameter description :

Parameter	Parameter description :	Value
ip	IP Address	
all	All arp	
dynamic	dynamic	
static	Static	

66.7 show arp

Command function :

Show arp table

Command format :

show arp < dynamic | static | all | ip|mac|vlan <vlan-id>|interface ethernet <port-num>>

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
ip	IP Address	
all	All arp	
dynamic	dynamic	
static	static	
mac	Mac Address	
vlan-id	Vlan-id	
port-num	port-num	

66.8 arp overwrite

Command function :

Configure arp collision message under physical Interface

Command format :

arp overwrite
no arp overwrite

Parameter description :

None

66.9 linkup gratuitous-arp

Command function :

Send free arp when configuration port is up under physical interface

Command format :

arp linkup gratuitous-arp
no linkup gratuitous-arp

Parameter description :

None

66.10 arp-reply-repeat

Command function :

Enable arp-reply-repeat function under physical interface

Command format :

arp-reply-repeat
no arp-reply-repeat

Parameter description :

None

66.11 arp-reply-repeat [times]

Command function :

Configure arp-reply-repeat times per unit time globally

Command format :

arp-reply-repeat [times <times>] [interval <mseconds>]

no arp-reply-repeat [times <times>] [interval <mseconds>]

Parameter description :

Parameter	Parameter description :	Value
times	times	1-3
mseconds	ms	10-1000ms

66.12 show arp aging-time

Command function :

View arp aging-time

Command format :

show arp aging-time

Parameter description :

None

66.13 show arp overwrite

Command function :

View arp aging time

Command format :

show arp overwrite [interface ethernet <port-num>]

Parameter description :

None

66.14 show arp peer

Command function :

View peer

Command format :

show arp peer

Parameter description :

None

66.15 show arp-reply-repeat

Command function :

View arp-reply-repeat

Command format :

show arp-reply-repeat [interface ethernet <port-num>]

Parameter description :

None

67.ARP Probe configuration command

67.1 arp probe

Command function :

Enable arp probe function

Command format :

arp probe**no arp probe**

Parameter description :

None

67.2 arp probe poll-timer

Command function :

Configure the arp probe poll- timer

Command format :

arp probe poll-timer <seconds>**no arp probe poll-timer**

Parameter description :

Parameter	Parameter description :	Value
seconds	time	60-300s

67.3 arp probe retransmit count

Command function :

Configure arp probe retransmit count

Command format :

arp probe retransmit count <value >

no arp probe retransmit count

Parameter description :

Parameter	Parameter description :	Value
value		2-5

67.4 arp probe retransmit interval

Command function :

Configure probe retransmit interval

Command format :

arp probe retransmit interval <seconds >

no arp probe retransmit interval

Parameter description :

Parameter	Parameter description :	Value
seconds		1-3s

67.5 arp probe ip

Command function :

Configure the arp probe remote IP

Command format :

arp probe ip <ip >

no arp probe ip <ip|all >

Parameter description :

Parameter	Parameter description :	Value
ip	Ip address	
all	All ip	

67.6 arp probe range ip

Command function :

Configure arp probe a set of remote IP

Command format :

arp probe range ip <ip > masklen <len>
 no arp probe range ip <ip > masklen <len>

Parameter description :

Parameter	Parameter description :	Value
ip	Ip Address	
len	Mask length	

67.7 show arp probe

Command function :

Show arp probe information

Command format :

show arp probe

Parameter description :

None

68.ARP-Proxy configuration command

68.1 arp-proxy

Command function :

Vlan enables arp-proxy function firstly

Command format :

arp-proxy
 no arp-proxy

Parameter description :

None

68.2 arp-proxy ingress

Command function :

Enable arp-proxy ingress function under vlan

Command format :

arp-proxy ingress
 no arp-proxy ingress

Parameter description :

None

68.3 arp-proxy broadcast

Command function :

Enable the arp-proxy broadcast function of this vlan

Command format :

arp-proxy broadcast
no arp-proxy broadcast

Parameter description :

None

68.4 show arp-proxy

Command function :

Show arp-proxy

Command format :

show arp-proxy

Parameter description :

None

69.IPv6ND Configuration command

69.1 ipv6 neighbor <ipv6> <mac>

Command function :

Configure nd Short Static Table

Command format :

ipv6 neighbor <ipv6> <mac>

Parameter description :

Parameter	Parameter description :	Value
ipv6	Ipv6 Address	
mac	Mac Address	

69.2 ipv6 neighbor <ipv6> <mac> <vlan-id>

Command function :

Configure the nd long static table

Command format :

```
ipv6 neighbor <ipv6> <mac> vlan [vlan-id] [<port-id>]
```

Parameter description :

Parameter	Parameter description :	Value
ipv6	Ipv6 Address	
mac	Mac address	
vlan-id	Vlan id	
port-id	Port id	

69.3 ipv6 neighbor <ipv6> <mac> interface**Command function :**

Configure nd static tables

Command format :

```
ipv6 neighbor <ipv6> <mac> interface [vlan-interface <vlan-id>]
[supervlan-interface <su-vlan-id>]
```

Parameter description :

Parameter	Parameter description :	Value
ipv6	Ipv6 Address	
mac	Mac Address	
vlan-id	Vlan id	
su-vlan-id	Supervlan id	

69.4 ipv6 neighbors max-learning-num**Command function :**

Configure neighbors max-learning-num of port and neighbors max-learning-num globally.

Command format :

ipv6 neighbors max-learning-num *<num >*
no ipv6 neighbors max-learning-num

Parameter description :

Parameter	Parameter description :	Value
num		1-2560

69.5 show ipv6 neighbors max-learning-num

Command function :

View the maximum number of accessible neighbors

Command format :

show ipv6 neighbors max-learning-num

Parameter description :

None

69.6 ipv6 nd reachable-time

Command function :

Configure reachable-time status aging time of L3 interface configuration or reachable-time status aging time globally.

Command format :

ipv6 nd reachable-time *<time >*
no ipv6 nd reachable-time

Parameter description :

Parameter	Parameter description :	Value
time		1-3600 s

69.7 ipv6 nd dad attemps

Command function :

Configure send dad message times of L3 interface or send dad message times globally

Command format :

ipv6 nd dad attemps *<times >*
no ipv6 nd dad attemps

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
times		0-20

69.8 ipv6 nd ns retrans-time

Command function :

Configure ipv6 nd ns retrans-time of L3 interface or ipv6 nd ns retrans-time globally.

Command format :

ipv6 nd ns retrans-time <seconds >

Parameter description :

Parameter	Parameter description :	Value
seconds		1-3600s

69.9 ipv6 nd ra interval

Command function :

Configure ipv6 nd ra interval of L3 interface or ipv6 nd ra interval globally.

Command format :

ipv6 nd ra interval <max-seconds > <min-seconds >

no ipv6 nd ra interval

Parameter description :

Parameter	Parameter description :	Value
max-seconds	Maximum interval	4-1800
min-seconds	Minimum interval	3-1350

69.10 ipv6 nd ra halt

Command function :

ipv6 nd ra halt of interface

Command format :

ipv6 nd ra halt

no ipv6 nd ra interval

Parameter description :

none

69.11 ipv6 nd ra hop-limit

Command function :

Configure sending ra message of hop-limits to L3 interface.

Command format :

```
ipv6 nd ra hop-limit <num>
no ipv6 nd ra hop-limit
```

Parameter description :

Parameter	Parameter description :	Value
num		0-255

69.12 ipv6 nd ra prefix

Command function :

L3 Interface configuration for sending ra message prefix parameters

Command format :

```
ipv6 nd ra prefix <id> <ipv6-net> [valid-lifetime preferred-lifetime]
[off-link][ no-autoconfig]
no ipv6 nd ra prefix
```

Parameter description :

Parameter	Parameter description :	Value
id	Prefix id	1-32
valid-lifetime	valid-lifetime	0-4294967295s
preferred-lifetime	preferred-lifetime	0-4294967295s
no-autoconfig	no-autoconfig	
off-link	Connection determination	

69.13 ipv6 nd ra router-lifetime

Command function :

Configure router-lifetime of sending message to L3 interface

Command format :

```
ipv6 nd ra router-lifetime <second>
ipv6 nd ra router-lifetime
```

Parameter description :

Parameter	Parameter description :	Value
second		0-9000

69.14 show ipv6 nd dad attemps

Command function :

Show sending times of dad

Command format :

show ipv6 nd dad attemps

Parameter description :

None

69.15 show ipv6 nd reachable-time

Command function :

Show reachable-time status time

Command format :

show ipv6 nd reachable-time

Parameter description :

None

69.16 show ipv6 nd ns retrans-time

Command function :

show ipv6 nd ns retrans-time

Command format :

show ipv6 nd ns retrans-time

Parameter description :

None

69.17 show ipv6 nd ra halt

Command function :

Show whether the L3 interface suppresses ra

Command format :show ipv6 nd ra halt

Command format : none

69.18 show ipv6 nd ra hop-limit

Command function : Show the hop-limit of nd ra

Command format :show ipv6 nd ra hop-limit

Command format : none

69.19 show ipv6 nd ra interval

Command function : show ipv6 nd ra interval

Command format :show ipv6 nd ra interval

Command format : none

69.20 show ipv6 nd ra prefix

Command function : show ipv6 nd ra prefix

Command format :show ipv6 nd ra interval

Command format : none

69.21 show ipv6 nd ra router-lifetime

Command function : show ipv6 nd ra router-lifetime

Command format :show ipv6 nd ra router-lifetime

Command format : none

70.STP/RSTP configuration command

70.1 stp

Command function :

Global or physical interface enables stp

Command format :

stp

no stp

Parameter description :

None

70.2 stp mode

Command function :

Modify the stp mode

Command format :

stp mode <stp|rstp|mstp>

no stp mode

Parameter description :

None

70.3 stp hello-time

Command function :

Configuration the interval for sending bpd packets

Command format :**stp hello-time** < *seconds* >**no stp hello-time****Parameter description :**

Parameter	Parameter description :	Value
seconds		1-10 s , the default is 2s

70.4 stp forward-time

Command function :

Configuration the forward-delay time

Command format :**stp forward-time** < *seconds* >**no stp forward-time****Parameter description :**

Parameter	Parameter description :	Value
seconds		4-30 s , the default 15s

70.5 stp max-age

Command function :

Set the maximum time interval for aging STP packets

Command format :**stp max-age** < *num* >**no stp max-age****Parameter description :**

Parameter	Parameter description :	Value
num		6-40 s , 20s

70.6 stp pathcost-standard

Command function :

Modify the stp cost calculation method

Command format :

```
stp pathcost-standard < dot1d-1998|dot1t>
no stp pathcost-standard
```

Parameter description :

Parameter	Parameter description :	Value
dot1d-1998	Old way of calculation	
dot1t		

70.7 stp priority

Command function :

Modify stp priority

Command format :

```
stp priority <num>
no stp priority
```

Parameter description :

Parameter	Parameter description :	Value
num	Priority size	0-61440 and 4094 multiples, default 32768

70.8 stp root-guard action

Command function :

stp root-guard

Command format :

```
stp root-guard action <block-port|drop-packets>
```

Parameter description :

Parameter	Parameter description :	Value
drop-packets	Drop messages	
block-port	Blocked port	Defaults

70.9 stp tc-protection

Command function :

Enable tc protection

Command format :

stp tc-protection

no stp tc-protection

Parameter description :

None

70.10 stp tc-protection interval

Command function :

Enable tc protection period

Command format :

stp tc-protection interval *<seconds>*

no stp tc-protection interval

Parameter description :

Parameter	Parameter description :	Value
seconds		1-255 , the default 10s

70.11 stp tc-protection threshold

Command function :

Maximum number of tc packets processed during tc protection period

Command format :

stp tc-protection threshold *<num>*

no stp tc-protection threshold

Parameter description :

Parameter	Parameter description :	Value
num		1-255 , the default 6

70.12 stp time-factor

Command function :

Configure the timeout factor

Command format :

stp time-factor *<num>*

no stp time-factor

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
num		1-10 , the default 3

70.13 stp bpdu-guard

Command function :

Enable the bpdu-guard function globally or on a physical intertace

Command format :

stp bpdu-guard
no stp bpdu-guard

Parameter description :

None

70.14 stp bpdu-filter

Command function :

Filtering bpdu packets globally or on physical interfaces

Command format :

stp bpdu-filter
no stp bpdu-filter

Parameter description :

None

70.15 stp cost

Command function :

Configure the cost of the physical interface

Command format :

stp cost <num>
no stp time-factor

Parameter description :

Parameter	Parameter description :	Value
num		1-200000000

70.16 stp edge-port

Command function :

Physical interface configured as an edge port

Command format :

stp edge-port
no stp edge-port

Parameter description :

None

70.17 stp link-type

Command function :

Configure the physical interface link type

Command format :

stp link-type <auto |point-to-point|shared >
no stp link-type

Parameter description :

Parameter	Parameter description :	Value
auto	Automatic detection	
point-to-point	Point to point	
shared	Non-point to point	

70.18 stp loop-guard

Command function :

Physical interface configuration loop-guard function

Command format :

stp loop-guard
no stp loop-guard

Parameter description :

None

70.19 stp mcheck

Command function :

Perform mcheck function

Command format :

stp mcheck

Parameter description :

None

70.20 stp port-priority

Command function :

Modify the priority of the physical interface stp

Command format :

```
stp port-priority <num>
no stp port-priority
```

Parameter description :

Parameter	Parameter description :	Value
num	Priority size	0-240 and 16 multiple, default 128

70.21 stp root-guard

Command function :

Configure the root-guard function on the physical interface

Command format :

```
stp root-guard
no stp root-guard
```

Parameter description :

None

70.22 stp tcn-restricted

Command function :

Physical interface configuration tcn propagation limit function

Command format :

```
stp tcn-restricted
no stp tcn-restricted
```

Parameter description :

None

70.23 stp transmit-limit

Command function :

Configure the physical interface to process the maximum number of bpdu packets

Command format :

```
stp transmit-limit <auto |point-to-point|shared >
no stp transmit-limit
```

Parameter description :

Parameter	Parameter description :	Value
num		1-255, default 3

70.24 show stp interface**Command function :**

Display interface stp information

Command format :

show stp interface [brief] ethernet <interface-list>

Parameter description :

Parameter	Parameter description :	Value
brief	Brief information	
interface-list	Port list	

None

71.MSTP configuration manual

71.1 stp

Command function :

Global or physical interface enables stp

Command format :

stp

no stp

Parameter description :

None

71.2 stp mode

Command function :

Modify stp mode

Command format :

stp mode <stp|rstp|mstp>

no stp mode

Parameter description :

None

71.3 mstp hello-time

Command function :

Configure the interbal for sending bpdu packets

Command format :

mstp hello-time < seconds >

no mstp hello-time

Parameter description :

Parameter	Parameter description :	Value
seconds		1-10s, default 2s

71.4 mstp forward-time

Command function :

Configure forward-delay time

Command format :

mstp forward-time < *seconds* >
no mstp forward-time

Parameter description :

Parameter	Parameter description :	Value
seconds		4-30 s, default 15s

71.5 mstp max-age**Command function :**

Interval for aging the inter-zone STP packets

Command format :

mstp max-age < *num* >
no mstp max-age

Parameter description :

Parameter	Parameter description :	Value
num		6-40 s, default 20s

71.6 mstp max-hops**Command function :**

STP maximum number of hops in the domain

Command format :

mstp max-hops < *num* >
no mstp max-hops

Parameter description :

Parameter	Parameter description :	Value
num		1-255 s, default 20

71.7 mstp instance <id> priority**Command function :**

Modify the priority of the instance

Command format :

mstp instance <id> priority <num2>

no mstp instance 0 priority

Parameter description :

Parameter	Parameter description :	Value
id	Instance number	0-15
num2	priority	0-61440 and 4096 multiples, default 32768

71.8 mstp root-guard action

Command function :

mstp root-guard

Command format :

mstp root-guard action <block-port|drop-packets>

Parameter description :

Parameter	Parameter description :	Value
drop-packets	Drop message	
block-port	Blocked port	default

71.9 stp tc-protection

Command function :

Enable tc protection

Command format :

mstp tc-protection

no mstp tc-protection

Parameter description :

None

71.10 mstp tc-protection interval

Command function :

Enable tc protection period

Command format :

mstp tc-protection interval <seconds>

no mstp tc-protection interval

Parameter description :

Parameter	Parameter description :	Value
seconds		1-255 , default 10s

71.11 mstp tc-protection threshold

Command function :

Maximum number of tc packets processed during tc protection period

Command format :

mstp tc-protection threshold <num>
no mstp tc-protection threshold

Parameter description :

Parameter	Parameter description :	Value
num		1-255, default 6

71.12 mstp time-factor

Command function :

Configure the timeout factor

Command format :

mstp time-factor <num>
no mstp time-factor

Parameter description :

Parameter	Parameter description :	Value
num		1-10, default 3

71.13 mstp bpdu-guard

Command function :

Enable the bpdu-guard function globally or on a physical interface

Command format :

mstp bpdu-guard
no mstp bpdu-guard

Parameter description :

None

71.14 mstp bpdu-filter

Command function :

Filtering bpdu packets globally or on physical interfaces

Command format :

mstp bpdu-filter

no mstp bpdu-filter

Parameter description :

None

71.15 mstp instance <id> vlan

Command function :

Configure the mapping between the instance and the vlan

Command format :

mstp instance <id> vlan <vlan-list>

no mstp instance <id> vlan <vlan-list>

Parameter description :

Parameter	Parameter description :	Value
id	Instance number	0-15
vlan-list	Vlan list	

71.16 mstp region-name

Command function :

Configure the domain name

Command format :

mstp region-name <name>

no mstp region-name

Parameter description :

Parameter	Parameter description :	Value
name		STRING<1-32>

71.17 mstp enable instance

Command function :

Enable instance

Command format :

mstp enable instance <id>

Parameter description :

Parameter	Parameter description :	Value
id		1-15

71.18 mstp disable instance

Command function :

Disable instance

Command format :

mstp disable instance <id>

Parameter description :

Parameter	Parameter description :	Value
id		1-15

71.19 mstp revision

Command function :

Configure revision

Command format :

mstp revision <level>
no mstp region-name

Parameter description :

Parameter	Parameter description :	Value
level		0-65535

71.20 mstp flap-guard

Command function :

flap-guard configuration

Command format :

mstp flap-guard <enable|max-flaps <num>|recovery-time <seconds>>
no mstp flap-guard

Parameter description :

Parameter	Parameter description :	Value
enabel	Enable function	
num	Shocks	1-100, default 5
seconds	Recovery time	30-1000, default 30s

71.21 mstp external cost

Command function :

Configure the cost of the physical interface mstp domain

Command format :

mstp external cost <num>
no mstp external cost

Parameter description :

Parameter	Parameter description :	Value
num		1-200000000

71.22 mstp instance <id> cost

Command function :

Configure the cost in the physical interface domain

Command format :

mstp instance <id> **cost** <num>
no mstp instance <id> **cost**

Parameter description :

Parameter	Parameter description :	Value
num		1-200000000
id	Instance number	

71.23 mstp edge-port

Command function :

Physical interface configured as an edge port

Command format :

mstp edge-port
no mstp edge-port

Parameter description :

None

71.24 mstp link-type

Command function :

Configure the physical interface link type

Command format :

mstp link-type <auto |point-to-point|shared >
no mstp link-type

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
auto	Automatic detection	
point-to-point	Point to point	
shared	Non-point to point	

71.25 mstp loop-guard

Command function :

Physical interface configuration loop-guard function

Command format :

mstp loop-guard
no mstp loop-guard

Parameter description :

None

71.26 mstp mcheck

Command function :

Perform mcheck function

Command format :

mstp mcheck

Parameter description :

None

71.27 mstp instance <id> port-priority

Command function :

Modify the instance priority of physical interface mstp

Command format :

mstp instance <id> port-priority <num>
no mstp instance <id> port-priority

Parameter description :

Parameter	Parameter description :	Value
num	Priority size	0-240 and 16 multiple, default128
id	Instance number	0-15

71.28 mstp config-digest-snooping

Command function :

Compatible with Cisco

Command format :

mstp config-digest-snooping
no mstp config-digest-snooping

Parameter description :

None

71.29 show mstp instance

Command function :

View mstp instance information

Command format :

show mstp instance

Parameter description :

None

71.30 show mstp disabled-instance

Command function :

View disabled-instance

Command format :

show mstp instance

Parameter description :

None

71.31 show mstp config-id

Command function :

View the domain configuration of mstp

Command format :

show mstp config-id

Parameter description :

None

71.32 stp pathcost-standard

Command function :

Modify the stp cost calculation method

Command format :

```
stp pathcost-standard < dot1d-1998|dot1t>
no stp pathcost-standard
```

Parameter description :

Parameter	Parameter description :	Value
dot1d-1998	Old way of calculation	
dot1t		

72.EAPS configuration manual

72.1 eaps

Command function :

Global enable eaps

Command format :

```
eaps
no eaps
```

Parameter description :

None

72.2 eaps domain

Command function :

Create and enter eaps domain

Command format :

```
eaps domain <id>
no eaps domain <id>
```

Parameter description :

Parameter	Parameter description :	Value
id	domain id	0-15

72.3 control-vlan

Command function :

eaps domain Configuration Control vlan

Command format :

control-vlan < *vlan-id* >

no control-vlan

Parameter description :

Parameter	Parameter description :	Value
vlan-id		1-4093

72.4 fail-timer

Command function :

Configuring timeout timers for eaps domain

Command format :

fail-timer < *seconds*>

no fail-timer

Parameter description :

Parameter	Parameter description :	Value
seconds		3-30s , default : 6s

72.5 hello-timer

Command function :

Eaps domain configuration health message timer

Command format :

hello-timer < *seconds*>

no hello-timer

Parameter description :

Parameter	Parameter description :	Value
seconds		1-10s default : 1s

72.6 preup-timer

Command function :

Configuration recovery timer under eaps domain

Command format :

preup-timer < *seconds*>

no preup-timer

Parameter description :

Parameter	Parameter description :	Value
seconds		0-30 default : 0

72.7 ring

Command function :

Eaps domain ring role and port role configuration

Command format :

ring <*id*> **role** < *assistant-edge* | *edge* > <*eth-trunk* | *ethernet* >
<*interface*>

ring <*id*> **role** <*master*| *transmit* > **primary-port** <*interface*> **secondary-port**
<*interface*> **level** <*num*>

no ring <*id*>

Parameter description :

Parameter	Parameter description :	Value
id	Ring id	0-15
master	Master node	
assistant-edge	assistant edge node	
edge	Edge node	
transmit	Transmission node	
interface	Interface	
num	Ring level	0-1

72.8 topo-collect

Command function :

Configure topology discovery in the eaps domain

Command format :

topo-collect

no topo-collect

Parameter description :

None

72.9 work-mode

Command function :

eaps domain configuration mode

Command format :

work-mode [rrpp|standard|eips-subring]

Parameter description :

Parameter	Parameter description :	Value
rrpp	Compatible with Huawei	
eips-subring	Compatible with Maipu	
standard	Standard mode	

72.10 show eaps

Command function :

Display eaps ring information

Command format :

show eaps

Parameter description :

None

72.11 show eaps control-vlan

Command function :

Display eaps control-vlan and ring port information

Command format :

show eaps control-vlan [*vlan-id*]

Parameter description :

Parameter	Parameter description :	Value
vlan-id	vlan	

72.12 show eaps domain

Command function :

Display eaps ring information based on domain

Command format :

show eaps domain <*domain-id*>

Parameter description :

Parameter	Parameter description :	Value
domain-id	domain	0-15

72.13 show eaps statistics**Command function :**

Display eaps message count

Command format :

show eaps statistics [domain <domain-id>]

Parameter description :

Parameter	Parameter description :	Value
domain-id	domain	

72.14 show eaps topology**Command function :**

Display eaps topology

Command format :

show eaps topology [brief|domain <domain-id>]

Parameter description :

Parameter	Parameter description :	Value
domain-id	domain	
brief	brief	

72.15 clear eaps**Command function :**

Clear eaps message statistics

Command format :

clear eaps [domain <domain-id >[ring <ring-id >]]

Parameter description :

Parameter	Parameter description :	Value
domain-id	domain	
ring-id	Ring id	

73.ERPS configuration manual

73.1 erps

Command function :

Global enable erps

Command format :

erps

no erps

Parameter description :

None

73.2 erps instance

Command function :

Create and enter erps instance

Command format :

erps instance <id>

no erps instance <id>

Parameter description :

Parameter	Parameter description :	Value
id	instance id	0-15

73.3 control-vlan

Command function :

erps instance configuration control vlan

Command format :

control-vlan < vlan-id >

no control-vlan

Parameter description :

Parameter	Parameter description :	Value
vlan-id		1-4094

73.4 guard-timer

Command function :

erps instance configuration guard-timer

Command format :

guard-timer < *seconds*>

no guard-timer

Parameter description :

Parameter	Parameter description :	Value
seconds		100-2000ms , default : 500ms

73.5 wtr-timer

Command function :

erps instance configuration recovery timeout timer

Command format :

wtr-timer < *seconds*>

no wtr-timer

Parameter description :

Parameter	Parameter description :	Value
seconds		1-12min , 1 default : 5min

73.6 mel

Command function :

erps instance associated cfm level

Command format :

mel < *level*>

no mel

Parameter description :

Parameter	Parameter description :	Value
level		0-7 , default : 0

73.7 work-mode

Command function :

erps instance configuration mode

Command format :

work-mode [revertive | non-revertive]

Parameter description :

Parameter	Parameter description :	Value
revertive	switch	
non-revertive	Don't switch	

73.8 protected-instance

Command function :

List of protected mstp instances under erps instance

Command format :

protected-instance <id-list>

Parameter description :

Parameter	Parameter description :	Value
id-list		STRING<1-64>

73.9 port0 ethernet

Command function :

erps instance configure port0

Command format :

port0 ethernet <port-number> [owner|next-neighbour|neighbour]

Parameter description :

Parameter	Parameter description :	Value
neighbour	rpl neighbour	
owner	rpl-owner	
next-neighbour	Next neighbor	
port-number	The port number	

73.10 port1 ethernet

Command function :

erps instance configure port1

Command format :

port1 ethernet <port-number> [owner|next-neighbour|neighbour]

Parameter description :

Parameter	Parameter description :	Value
neighbour	rpl neighbour	
owner	rpl-owner	
next-neighbour	Next neighbor	

port-number	The port number	
-------------	-----------------	--

73.11 ring

Command function :

erps instance ring configuration

Command format :

ring <id>[enable|disable|level <level>]

Parameter description :

Parameter	Parameter description :	Value
id	Ring id	1-239
enable	Enable ring	
disable	Disable ring	
level	Ring level	0-1

73.12 show erps

Command function :

Display erps ring information

Command format :

show erps

Parameter description :

None

73.13 show erps control-vlan

Command function :

Display erps control-vlan and ring port information

Command format :

show erps control-vlan [vlan-id]

Parameter description :

Parameter	Parameter description :	Value
vlan-id	vlan	1-4094

73.14 show erps instance

Command function :

Display erps ring information based on instance

Command format :

show eaps domain <instance-id>

Parameter description :

Parameter	Parameter description :	Value
instance-id	Instance ID	0-15

73.15 show erps instance <id> statistics

Command function :

Count packets based on instance

Command format :

show erps instance < instance-id > **statistics**

Parameter description :

Parameter	Parameter description :	Value
instance-id	instance	0-15

73.16 show eaps statistics

Command function :

Display erps packet count

Command format :

show erps statistics

Parameter description :

None

74.Eth-Trunk configuration manual

74.1 interface eth-trunk

Command function :

Add and enter or enter aggregates groups

Command format :

interface eth-trunk <id>

no interface eth-trunk <id>

Parameter description :

Parameter	Parameter description :	Value
-----------	-------------------------	-------

id	Aggregation group number	1-31
----	--------------------------	------

74.2 link-aggregation load-balance

Command function :

Configure link-aggregation load-balance

Command format :

```
link-aggregation load-balance <dst-ip
|dst-mac|src-dst-ip|src-dst-mac|src-ip|src-mac>
no link-aggregation load-balance
```

Parameter description :

Parameter	Parameter description :	Value
dst-ip	Destination ip	
dst-mac	Destination mac	
src-dst-ip	Source purpose ip	
src-dst-mac	Source purpose mac	
src-ip	Source ip	
src-mac	Source mac	default

74.3 link-aggregation mode

Command function :

Configure the aggregation mode

Command format :

```
link-aggregation mode <dynamic|static >
no link-aggregation mode
```

Parameter description :

Parameter	Parameter description :	Value
dynamic	Dynamic	
static	Static	

74.4 link-aggregation members interface

Command function :

Adding member ports to an aggregation group

Command format :

link-aggregation members interface <interface-list>

no link-aggregation members interface

Parameter description :

Parameter	Parameter description :	Value
interface-list	Port list	

74.5 link-aggregation eth-trunk

Command function :

Add an aggregation group to a physical interface

Command format :

link-aggregation eth-trunk <num>

no link-aggregation eth-trunk

Parameter description :

Parameter	Parameter description :	Value
num	Aggregation group number	1-31

74.6 lacp mode

Command function :

Configure the interface mode on the physical interface

Command format :

lacp mode <active|passive>

no lacp mode

Parameter description :

Parameter	Parameter description :	Value
passive	Passive	
active	Active	

74.7 lacp period

Command function :

Configure the interface timeout mode on the physical interface

Command format :

lacp period <long|short >

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
short	Short time	
long	Long time	

74.8 lacp port-priority

Command function :

Configure the interface priority on the physical interface

Command format :

lacp port-priority <num >

no lacp port-priority

Parameter description :

Parameter	Parameter description :	Value
num	Priority	1-65535

74.9 lacp system-priority

Command function :

Configure global priority

Command format :

lacp system-priority <num >

no lacp system-priority

Parameter description :

Parameter	Parameter description :	Value
num	Priority	1-65535

74.10 show lacp local

Command function :

Display the status of the local aggregation group

Command format :

show lacp local [eth-trunk <num>]

Parameter description :

Parameter	Parameter description :	Value	
num	Aggregation group number	1-31	

74.11 show lacp sys-id

Command function :

Display the aggregation group system ID

Command format :

show lacp sys-id

Parameter description :

None

74.12 show lacp neighbor

Command function :

Display aggregation group neighbors

Command format :

show lacp neighbor [eth-trunk <num>]

Parameter description :

Parameter	Parameter description :	Value	
num	Aggregation group number	1-31	

75. Bandwidth-Control configuration command

75.1 bandwidth

Command function :

(no)bandwidth [ingress [percentage *value*] | egress [percentage *value*]] *rate*

Command in port module Bandwidth limit for configuring or deleting outgoing and incoming directions

Command format :

bandwidth egress 64

bandwidth egress percentage 12

no bandwidth egress

Parameter description :

Parameter	Parameter description :	Value
value	Percentage of port	(1-99)%
rate	Specific	64-10240000

	bandwidth limit	
--	-----------------	--

75.2 bandwidth queue

Command function :

(no)bandwidth queue *queue-id* [maximum | minimum] *rate*

Command port mode configuration or delete base Queue bandwidth limit

Command format :

bandwidth queue 1 maximum 64

no bandwidth queue 1 maximum

Parameter description :

Parameter	Parameter description :	Value
queue-id	Service queue	0-7
rate	Specific bandwidth limit	64-10240000

75.3 bandwidth cpu-queue

Command function :

(no)bandwidth cpu-queue *queue-id* [maximum | minimum] [default|*rate*]

Command port mode configuration or delete base Queue bandwidth limit...

Command format :

bandwidth cpu-queue 1 maximum 64

no bandwidth cpu-queue 1 maximum

Parameter description :

Parameter	Parameter description :	Value
queue-id	Server queue	0-7
rate	Specific bandwidth limit	64-10240000

75.4 show bandwidth-control

Command function :

show bandwidth-control [ethernet *port-id*]

Command to view port bandwidth limit information

Command format :

show bandwidth-control ethernet 0/0/2

show bandwidth-control

Parameter description :

Parameter	Parameter description :	Value
port-id	The port number	According to the physical port of the switch, for example 28 ports: 0/0/1-0/1/4

75.5 show bandwidth queue

Command function :

show bandwidth queue [ethernet *port-id*]

Command to view queue-based bandwidth limits on a port

Command format :

show bandwidth queue ethernet 0/0/2

show bandwidth queue

Parameter description :

Parameter	Parameter description :	Value
port-id	The number port	According to the physical port of the switch, for example 28 ports: 0/0/1-0/1/4

75.6 show bandwidth cpu-queue

Command function :

show bandwidth cpu-queue

Command to view CPU queue-based bandwidth limits

Command format :

show bandwidth cpu-queue

Parameter description :

None

76.MAC address management configuration command

76.1 mac-address-table age-time

Command function :

mac-address-table age-time [*second*] disable]

Command to configure or disable MAC address aging time

no mac-address-table age-time

Command to restore the default MAC address aging time

Command format :

mac-address-table age-time 10
mac-address-table age-time disable
no mac-address-table age-time

Parameter description :

Parameter	Parameter description :	Value
second	MAC address aging time in seconds. The default is 300s.	10-1000000

76.2 mac-address-table

Command function :

mac-address-table [static | permanent | dynamic] *mac-add* **interface ethernet**
port-id **vlan**

vlan-id

Command to manually add the MAC address table

no mac-address-table [static | permanent | dynamic] *mac-add* **interface**

ethernet *port-id*

vlan *vlan-id*

Manually delete the MAC address table

Command format :

mac-address-table static 2:2:2:2:2:2 interface ethernet 0/0/1 vlan 2
no mac-address-table static 2:2:2:2:2:2 interface ethernet 0/0/1 vlan 2

Parameter description :

Parameter	Parameter description :	Value
mac-add	MAC address	48-bit binary number in the format X:X:X:X:X:X
port-id	The number port	According to the physical port of the switch, for example 28 ports: 0/0/1-0/1/4
vlan-id	Set vlan id	1-4094

76.3 mac-address-table blackhole

Command function :

mac-address-table blackhole *mac-add* **vlan** *vlan-id*

Command to manually add the blackhole MAC address table

no mac-address-table blackhole *mac-add* **vlan** *vlan-id*

Command to manually delete the blackhole MAC address table

Command format :

mac-address-table blackhole 2:2:2:2:2:2 vlan 1
no mac-address-table blackhole 2:2:2:2:2:2 vlan 1

Parameter description :

Parameter	Parameter description :	Value
mac-add	MAC address	48-bit binary number in the format X:X:X:X:X:X
vlan-id	Set vlan id	1-4094

76.4 mac-address-table learning

Command function :

(no) mac-address-table learning
 Command to switch mac address learning globally or port

Command format :

mac-address-table learning
no mac-address-table learning

Parameter description :

None

76.5 mac-address-table max-mac-count

Command function :

mac-address-table max-mac-count *count* [eth-trunk *id*]
 Command to configure the number of aggregation groups or single-port MAC addresses to learn

Command format :

mac-address-table max-mac-count 1 channel-group 1
mac-address-table max-mac-count 1

Parameter description :

Parameter	Parameter description :	Value
count	Number of MAC address	1-16383
id	Aggregation group id	1-31

76.6 no mac-address-table max-mac-count

Command function :

no mac-address-table max-mac-count [eth-trunk *id*]
 Command to configure the number of aggregation groups or single-port MAC

addresses to learn

Command format :

no mac-address-table max-mac-count

no mac-address-table max-mac-count eth-trunk 2

Parameter description :

Parameter	Parameter description :	Value
id	Aggregation group id	1-31

76.7 show mac-address max-mac-count

Command function :

Show mac-address max-mac-count [interface [ethernet *port-id* | eth-trunk *id*] |

vlan *vlan-id*]

View the number of MACs that can be learned on the port, aggregation group, or

VLAN.

Command format :

Show mac-address-table max-mac-count vlan 1

Show mac-address-table max-mac-count interface ethernet 0/0/2

show mac-address-table max-mac-count interface eth-trunk 1

Parameter description :

Parameter	Parameter description :	Value
port-id	The number port	According of the physical port of the switch, for example 28-port switch: 0/0/1-0/1/4
id	Aggregation group id	1-31
vlan-id	Set vlan id	1-4094

76.8 show mac-address-table age-time

Command function :

show mac-address-table age-time

Command to view the MAC address aging time

Command format :

show mac-address-table age-time

Parameter description :

None

76.9 show mac-address-table

Command function :

show mac-address-table [static | permanent | dynamic | blackhole | vlan]

mac-add interface [ethernet | eth-trunk] *port-id* **vlan** *vlan-id*

Command to view the MAC address table

Command format :

show mac-address-table static interface ethernet 0/0/1 vlan 1

Parameter description :

Parameter	Parameter description :	Value
mac-add	MAC address	48-bit binary number in the format X:X:X:X:X
port-id	The number port	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4
vlan-id	Set vlan id	1-4094

76.10 show mac-address learning

Command function :

show mac-address learning interface [ethernet *port-id*]

Command to view the MAC address learning status, the default is open

Command format :

show mac-address learning interface

show mac-address learning interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The number	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

76.11 show mac-address cpu

Command function :

show mac-address cpu

Command to view cpu mac address

Command format :

show mac-address cpu

Parameter description :

None

77.DLF-Control configuration command

77.1 unknown-discard unicast vlan

Command function :

(no)unknown-discard unicast vlan vlan-id [ethernet port-id]

Command to switch unknown unicast based on vlan and port forwarding in global mode

Command format :

unknown-discard unicast vlan 1

no unknown-discard unicast vlan 1

Parameter description :

Parameter	Parameter description :	Value
port-id	The number port	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4
vlan-ID	Vlan	1-4094

77.2 unknown-discard unicast

Command function :

(no)unknown-discard unicast

Command to switch the unknown unicast forwarding function in port mode

Command format :

unknown-discard unicast

no unknown-discard unicast

Parameter description :

None

77.3 unknown-discard multicast vlan

Command function :

(no)unknown-discard multicast vlan vlan-id [ethernet port-id]

Command to Switch Unknown Multicast Based on vlan and Port Forwarding in

Global Mode

Command format :

unknown-discard multicast vlan 1

no unknown-discard multicast vlan 1

Parameter description :

Parameter	Parameter	Value
-----------	-----------	-------

	description :	
port-id	The number port	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4
vlan-ID	Vlan	1-4094

77.4 unknown-discard multicast

Command function :

(no)unknown-discard multicast

Command to Switch Unknown Multicast Forwarding in Port Mode

Command format :

unknown-discard multicast

no unknown-discard multicast

Parameter description :

None

77.5 show unknown-discard

Command function :

show unknown-discard [ethernet|vlan *vlan-id*]

Command to view unknown unicast and multicast configurations

Command format :

show unknown-discard ethernet 0/0/1

show unknown-discard vlan 1

Parameter description :

Parameter	Parameter description :	Value
vlan-id	Set vlan id	1-4094

78.SLF-Control configuration command

78.1 unknown-discard src-mac

Command function :

(no)unknown-discard src-mac

Command Switching Source Unknown Forwarding Function Configuration Under

Port

Command format :

unknown-discard src-mac

no unknown-discard src-mac

Parameter description :

None

78.2 show unknown-discard src-mac

Command function :

Show unknown-discard src-mac[*ethernet port-id*]

Command view source unknown forwarding configuration

Command format :

show unknown-discard src-mac

show unknown-discard src-mac ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value
port-id	The number port	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

79.802.1Q Configuration command

79.1 vlan

Command function :

vlan *vlan-list*

Command is used to create vlan globally

no vlan [*all*|*vlan-list*]

Command is used to perform vlan deletion globally

Command format :

vlan 2,4,6,7-20
 no vlan 2,4,6,7-20
 no vlan all

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	Get VLAN id	Numeric string, case-insensitive, not support spaces, the length range is 1-128. String range 1-4094
all	All configured vlan	None

79.2 switchport

Command function :

(no) switchport [*ethernet*|*all*]
 Command to add or delete ports in vlan mode

Command format :

(no) switchport ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
ethernet	Get port id	Numeric string, case insensitive, not support spaces, length range is 5-6. The port range is equal to the physical port of the switch
all	All port	None

79.3 switchport pvid

Command function :

(no) switchport pvid *vlan-id*
 Command to add or delete the port PVID in port mode

Command format :

(no) switchport pvid 1

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	Get vlan id	1-4094

79.4 switchport link-type

Command function :

(no) switchport link-type [*access* | *hybrid* | *trunk*]

The link type of the command to change the port

Command format :

(no)switchport link-type access

Parameter description :

None

79.5 switchport trunk allowed vlan

Command function :

(no) switchport trunk allowed vlan [*vlan-list*|*all*]

Commanad to ass or delete vlan that trunk port belong to

Command format :

(no) switchport trunk allowed vlan 1

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	Get VLAN id	Numeric string, case-insensitive, not support space, the length range is 1-128. String range 1-4094
all	All configured vlan	none

79.6 switchport hybrid untagged vlan

Command function :

(no)switchport hybrid untagged vlan [*vlan-list*|*all*]

Command to add or remove VLAN under hybrid untagged port

Command format :

(no)switchport hybrid untagged vlan 1

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	Get VLAN id	Numeric string, case-insensitive, not support space, the length range is 1-128. String range is 1-4094.
all	All configured vlan	None

79.7 switchport hybrid tagged vlan

Command function :

(no)switchport hybrid tagged vlan [*vlan-list*|*all*]

Command to add or remove the vlan under the hybrid tagged port

Command format :

(no)switchport hybrid tagged vlan 1

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	Get VLAN id	Numeric string, case-insensitive, not support space, the length range is 1-128. String range is 1-4094.
all	All configured vlan	None

79.8 priority

Command function :

(no)priority *value*

Command to add or remove the priority below the port

Command format :

(no)priority 1

Parameter description :

Parameter	Parameter description :	Value range
value	Get priority	0-7

79.9 ingress acceptable-frame

Command function :

(no)ingress acceptable-frame [*tagged*|*all*]

Command to add or remove the ingress frame type under the port

Command format :

(no)ingress acceptable-frame tagged

Parameter description :

Parameter	Parameter description :	Value range
tagged	Only receive tag message	None
all	All messages are received	None

79.10 ingress filtering

Command function :

(no) ingress filtering

Command to enable or delete port message filtering

Command format :

(no) ingress filtering

Parameter description :

None

79.11 interface vlan-interface

Command function :

(no)interface vlan-interface *vlan-id*

Command to add or remove the vlan L3 interface

Command format :

(no) interface vlan-interface 2

Parameter description :

Parameter	Parameter description :	Value range
vlan-id	vlan id	1-4094

79.12 description

Command function :

(no)description *string*

Command to add or remove vlan names

Command format :

(no)description vlan1

Parameter description :

Parameter	Parameter description :	Value range
string	Vlan name	Any character except ?,Space need add double quotes

79.13 show interface vlan brief

Command function :

show interface vlan brief

The command view the VLAN information under all the interfaces of the switch.

show interface vlan brief ethernet *port-id*

Command to view the vlan information of the switch under a single port

Command format :

show interface vlan brief

show interface vlan brief ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28 port switch: 0 / 0 / 1 - 0 / 1 / 4

80.QINQ Configuration

80.1 qinq

Command function :

(no)qinq

Command is used to switch qinq and the qinq function is disable by default

Command format :

(no)qinq

Parameter description :

None

80.2 qinq inner-tpid

Command function :

(no)qinq inner-tpid *protocol-number*

Command inserts or deletes the qinq internal protocol number

Command format :

(no)qinq inner-tpid 0001

Parameter description :

Parameter	Parameter description :	Value range
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protocol-number	protocol-number	1-ffff
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80.3 qinq mode

Command function :

(no)qinq mode [*customer|uplink*]

Command to configure or delete qinq mode on the port, uplink by default

Command format :

qinq mode customer

qinq mode uplink

no qinq mode

Parameter description :

None

80.4 qinq outer-tpid

Command function :

(no)qinq outer-tpid *protocol-number*

The command configures or removes the VLAN protocol number under the port, and the default is 0x8100.

Command format :

qinq outer-tpid 9100

no qinq outer-tpid

Parameter description :

Parameter	Parameter description :	Value range
protocol-number	protocol-number	1-ffff

80.5 vlan pass-through

Command function :

vlan pass-through *start-vlan end-vlan*

Command to configure the qinq passthrough vlan under the port,

Command format :

vlan pass-through 2 3

Parameter description :

Parameter	Parameter description :	Value range
start-vlan	Start vlan	1-4094
end-vlan	End vlan	1-4094

80.6 no vlan pass-through

Command function :

no vlan pass-through [*all|start-vlan end-vlan*]

Command to delete the qinq passthrough under the port

Command format :

no vlan pass-through all

no vlan pass-through 2 3

Parameter description :

Parameter	Parameter description :	Value range
start-vlan	Start vlan	1-4094
end-vlan	End vlan	1-4094
all	All configuration	None

80.7 vlan insert

Command function :

vlan insert *start-vlan end-vlan service-vlan* **The command configures the dynamic qinq under the port**

Command format :

vlan insert 1 2 3

Parameter description :

Parameter	Parameter description :	Value range
start-vlan	Start vlan	1-4094
end-vlan	End vlan	1-4094

80.8 no vlan insert

Command function :

no vlan insert [*all|start-vlan end-vlan service-vlan*]

Command to delete the dynamic qinq configuration under the port

Command format :

no vlan insert 1 2 3

no vlan insert all

Parameter description :

Parameter	Parameter description :	Value range
start-vlan	Start vlan	1-4094
end-vlan	End vlan	1-4094

all	All configurations	none
-----	--------------------	------

80.9 show qinq

Command function :

show qinq

Command to view qinq configuration information

Command format :

show qinq

Parameter description :

None

80.10 show vlan pass-through

Command function :

show vlan pass-through

Command to view qinq configuration passthrough information

Command format :

show vlan pass-through

Parameter description :

None

81.GVRP Configuration

81.1 gvrp

Command function :

(no)gvrp

Command to switch GVRP function, disable by default.

Command format :

(no)gvrp

Parameter description :

None

81.2 garp permit vlan

Command function :

(no)garp permit vlan *vlan-list*

Command to configure or delete vlan that garp could publish

Command format :

garp permit vlan 2-100
no garp permit vlan 2-100

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	VLAN id	Numeric form strings, case insensitive, not support spaces, length range is 1-128. string range is 1-4094

81.3 garp forbid vlan

Command function :

(no)garp forbid vlan *vlan-list*
 Command to configure or delete prohibited propagating vlans in port mode, not prohibit by default.

Command format :

garp forbid vlan 2-100
no garp forbid vlan 2-100

Parameter description :

Parameter	Parameter description :	Value range
vlan-list	VLAN id	Numeric form strings, case insensitive, not support spaces, length range is 1-128. string range is 1-4094

81.4 show gvrp

Command function :

show gvrp
 Command to view if the gvrp function is enabled, disable by default

Command format :

show gvrp

Parameter description :

none

81.5 show gvrp interface

Command function :

show gvrp interface
 Command to view the gvrp configuration on all ports.

Command format :

show gvrp interface

Parameter description :

None

81.6 show gvrp interface ethernet

Command function :**show gvrp interface ethernet** *port-id*

Command to view the gvrp configuration on a single port.

Command format :**show gvrp interface ethernet** 0/0/1**Parameter description :**

Parameter	Parameter description :	Value range
port-id	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

82.Vlan Swap Command

82.1 vlan swap

Command function :**vlan wap** *start-vlan end-vlan swap-vlan pri*

Command to configure vlan swap in port mode

Command format :**vlan swap** 1 2 2 0**Parameter description :**

Parameter	Parameter description :	Value range
start-vlan	Start vlan	1-4094
end-vlan	End vlan	1-4094
swap-vlan	Swap vlan	1-4094
pri	Priority	0-7

82.2 show vlan-swap

Command function :**show vlan swap** [**ethernet** *port-id*]

Command to view the exchange information

Command format :**show vlan swap** [**ethernet** *port-id*]

Parameter description :

None

83. Protocol-VLAN Configuration Command

83.1 vlan-protocol

Command function :

**(no)vlan-protocol frametype frametype ethertype interface ethernet port-id
vlan-id**

Command to configure or delete a protocol-based vlan

Command format :

**vlan-protocol frametype 8023-llc-snap 9100 interface ethernet 0/0/1 2
vlan-protocol frametype 8023-llc 9100 interface ethernet 0/0/1 2
vlan-protocol frametype ethernet2 9100 interface ethernet 0/0/1 2
no vlan-protocol frametype 8023-llc-snap 9100 interface ethernet 0/0/1
no vlan-protocol frametype 8023-llc 9100 interface ethernet 0/0/1
no vlan-protocol frametype ethernet2 9100 interface ethernet 0/0/1**

Parameter description :

Parameter	Parameter description :	Value range
frametype	Frame type	8023-llc-snap 8023-llc ethernet2
ethertype	Ethertype id	1-FFFF
port-id	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4
Vlan-id	Vlan id	1-4094

83.2 no vlan-protocol

Command function :

no vlan-protocol

Command to delete all configurations of a protocol-based vlan

Command format :

no vlan-protocol

Parameter description :

None

83.3 show vlan-protocol

Command function :

show vlan-protocol

Command to view all configurations of a protocol-based vlan

Command format :

show vlan-protocol

Parameter description :

None

83.4 show vlan-protocol frametype**Command function :**

show vlan-protocol frametype *frametype* *ethertype* interface ethernet *port-id* *vlan-id*

Command to view all configurations of a protocol-based vlan

Command format :

show vlan-protocol frametype ethernet2 0800 interface ethernet 0/0/1

show vlan-protocol frametype 8023-llc 0800 interface ethernet 0/0/1

show vlan-protocol frametype 8023-llc-snap 0800 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
frametype	Frame type	8023-llc-snap 8023-llc ethernet2
ethertype	ethertype	1-FFFF
port-id	Port id	Depend on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4
Vlan-id	Vlan id	1-4094

84.vlan-subnet Configuration command**84.1 vlan-subnet****Command function :**

(no)vlan-subnet *ipadd mask vlan-id pri*

Command to configure or delete vlan based on IP subnet

Command format :

vlan-subnet 1.1.1.1 255.255.255.0 2 3

no vlan-subnet 1.1.1.1 255.255.255.0

Parameter description :

Parameter	Parameter description :	Value range
ipadd	Ip Address	Available IP address

mask	mask	0.0.0.0-255.255.255.255
vlan-id	Vlan id	1-4094
pri	priority	0-7

84.2 no vlan-subnet

Command function :

no vlan-subnet

Command to delete all configuration based on IP subnet vlan

Command format :

no vlan-subnet

Parameter description :

None

84.3 vlan-subnet precede

Command function :

vlan-subnet precede

Command to configure vlan-subnet precede matching based on IP subnets

Command format :

vlan-subnet precede

Parameter description :

None

84.4 show vlan-subnet

Command function :

show vlan-subnet [ipadd mask]

Command to view all configurations based on subnet vlan

Command format :

show vlan-subnet 1.1.1.1 255.255.0.0

Parameter description :

Parameter	Parameter description :	Value range
ipadd	Ip address	Available IP address
mask	mask	0.0.0.0-255.255.255.255

85. Mac-vlan Configuration Command

85.1 vlan-mac-table

Command function :

(no)vlan-mac-table *mac-add vlan-id pri*

Command to configure or delete vlan based on MAC address

Command format :

vlan-mac-table 1:1:1:1:1 2 3

no vlan-mac-table 1:1:1:1:1

Parameter description :

Parameter	Parameter description :	Value range
Mac-add	Mac Address	Available mac address
vlan-id	Vlan id	1-4094
pri	priority	0-7

85.2 no vlan-mac-table

Command function :

no vlan-mac-table

Command is used to delete all MAC-based vlan configurations

Command format :

no vlan-mac-table

Parameter description :

None

85.3 show vlan-mac-table

Command function :

show vlan-mac-table [*mac-address*]

Command is used to delete all MAC-based vlan configurations

Command format :

show vlan-mac-table 2:2:2:2:2

Parameter description :

Parameter	Parameter description :	Value range
mac-address	Mac address	Available mac address

86. Vlan-trunking Configuration Commands

86.1 vlan-trunking

Command function :

[no] vlan-trunking

Command to configure VLAN passthrough in port mode

Command format :

[no] vlan-trunking

Parameter description :

None

86.2 vlan-trunk-mode

Command function :

vlan-trunk-mode [auto|manual]

Command to configure VLAN passthrough mode globally

Command format :

vlan-trunk-mode auto

vlan-trunk-mode manual

Parameter description :

Parameter	Parameter description :	Value range
auto	Automatic mode, in which there is no need to create a vlan	None
manual	Manual mode, under which vlan is created	None

86.3 show vlan-trunking

Command function :

show vlan-trunking

Command to view configuration exchange VLAN passthrough information

Command format :

show vlan-trunking

Parameter description :

None

87.GMRP Configuration command

87.1 gmrp

Command function :

(no)gmrp

Command to enable (disable) multicast registration protocol in global or port

mode

Command format :

gmrp

no gmrp

Parameter description :

None

87.2 garp permit multicast mac-address

Command function :

(no) garp permit multicast mac-address *mac* vlan *vid*

Command to configure (delete) multicast published by multicast registration protocol

Command format :

garp permit multicast mac-address 01:00:5e:00:01:01 vlan 12

no garp permit multicast mac-address 01:00:5e:00:01:01 vlan 12

Parameter description :

Parameter	Parameter description :	Value range
<i>mac</i>	Multicast MAC address	128-bit binary, in the form of X: X: X: X: X: X
<i>vid</i>	VLAN id	1-4094

87.3 show gmrp

Command function :

show gmrp

Command to view the enable state of the global multicast registry protocol

Command format :

show gmrp

Parameter description :

None

87.4 show gmrp interface

Command function :

Show gmrp interface [ethernet *port-id*]

Command to view the enable state of the port multicast registry protocol

Command format :

show gmrp interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

87.5 show garp permit multicast

Command function :

show garp permit multicast

Command to view multicast registration protocol

Command format :

show garp permit multicast

Parameter description :

None

87.6 show multicast

Command function :

show multicast

Command to view local multicast group(Contains static and GMRP learning multicast groups)

Command format :

show multicast

Parameter description :

None

88.IGMP-Snooping Configuration command

88.1 igmp-snooping

Command function :

(no)igmp-snooping

Command to enable (disable) Internet Group Management snooping Protocol

Command format :

igmp-snooping

no igmp-snooping

Parameter description :

None

88.2 igmp-snooping host-aging-time

Command function :

igmp-snooping host-aging-time *time* vlan *vid*

Command to configure dynamic multicast port member aging time

Command format :

igmp-snooping host-aging-time 10 vlan 1

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Aging time (seconds)	10-1000000
<i>vid</i>	VLAN list	1-128

88.3 no igmp-snooping host-aging-time

Command function :

no igmp-snooping host-aging-time [vlan *vid*]

ommand to cancel the aging time of dynamic multicast port members

Command format :

no igmp-snooping host-aging-time vlan 1

Parameter description :

Parameter	Parameter description :	Value range
<i>vid</i>	VLAN List	1-128

88.4 igmp-snooping max-response-time

Command function :

igmp-snooping max-response-time *time*

Command to configure the query maximum response time

Command format :

igmp-snooping max-response-time 1

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Maximum response time in seconds	1-100

88.5 no igmp-snooping max-response-time

Command function :

no igmp-snooping max-response-time

Command to cancel the query maximum response time

Command format :

no igmp-snooping max-response-time

Parameter description :

None

88.6 igmp-snooping fast-leave

Command function :

igmp-snooping fast-leave

Command to configure port fast-leave mode.

Command format :

igmp-snooping fast-leave

Parameter description :

None

88.7 no igmp-snooping fast-leave

Command function :

no igmp-snooping fast-leave

Command to cancel port fast-leave mode

Command format :

no igmp-snooping fast-leave

Parameter description :

None

88.8 igmp-snooping group-limit**Command function :****igmp-snooping group-limit** *number*

Command to configure port max learning multicast number

Command format :**igmp-snooping group-limit** 1**Parameter description :**

Parameter	Parameter description :	Value range
<i>number</i>	Multicast group number	0-1020

88.9 no igmp-snooping group-limit**Command function :****no igmp-snooping group-limit**

Command cancels the maximum number of multicast that the port can learn

Command format :**no igmp-snooping group-limit****Parameter description :**

None

88.10 igmp-snooping overflow-replace

Command function :

igmp-snooping overflow-replace

Command to action configuration for full Multicast Group in Ports

Command format :

igmp-snooping overflow-replace

Parameter description :

None

88.11 igmp-snooping enable-vlan

Command function :

(no)igmp-snooping enable-vlan [vlan-list]

Command to configure (delete) default learning rules for multicast groups that are not on the black-and-white list

Command format :

igmp-snooping enable-vlan 1
no igmp-snooping enable-vlan 1

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-list</i>	VLAN list	1-128

88.12 igmp-snooping [permit | deny]

Command function :

(no)igmp-snooping [permit | deny] group mac vlan vid

igmp-snooping [permit | deny] group-range mac multi-count num vlan vid

Command to configure (delete) port multicast black-and-white list

Command format :

igmp-snooping deny group 01:00:5e:00:01:01 vlan 2
no igmp-snooping deny group 01:00:5e:00:01:01 vlan 2
igmp-snooping permit group-range 01:00:5e:00:01:01 multi-count 2 vlan 2

Parameter description :

Parameter	Parameter description :	Value range
<i>mac</i>	Multicast MAC address	128-bit binary, in the form of X: X: X: X: X: X
<i>num</i>	Multicast address number	1-64

<i>vid</i>	VLAN id	1-4094
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88.13 igmp-snooping querier

Command function :

(no)igmp-snooping querier

Command to enable or disable the query

Command format :

igmp-snooping querier

no igmp-snooping querier

Parameter description :

None

88.14 igmp-snooping mvr c-vlan

Command function :

(no)igmp-snooping mvr c-vlan *vlan-list* sp-vlan *vlan-num*

Command to enable or disable the multicast VLAN

Command format :

igmp-snooping mvr c-vlan 3 sp-vlan 3

no igmp-snooping mvr c-vlan 3 sp-vlan 3

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-list</i>	VLAN List	1-128
<i>vlan-num</i>	Service provider multicast VLAN	1-4094

88.15 igmp-snooping robust-count

Command function :

(no)igmp-snooping robust-count [*count*]

Command to configure or restore Multicast robust coefficients

Command format :

igmp-snooping robust-count 2

no igmp-snooping robust-count

Parameter description :

Parameter	Parameter description :	Value range
<i>count</i>	Robust-count value, the default value is 2	2-5

88.16 igmp-snooping last-member-query-interval

Command function :

(no)igmp-snooping last-member-query-interval *value*

Command to configure or restore multicast specific query send intervals

Command format :

igmp-snooping last-member-query-interval 2

no igmp-snooping last-member-query-interval

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Interval time, default is 1 second	1-5

88.17 igmp-snooping version

Command function :

igmp-snooping version *value*

Command to configure the version of the query message

Command format :

igmp-snooping version 2

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	IGMP version number, default IGMPv2	2-3

88.18 igmp-snooping querier-vlan

Command function :

(no)igmp-snooping querier-vlan *vlan-id*

Command to configure (delete) VLAN for general query messages

Command format :

igmp-snooping querier-vlan 2

no igmp-snooping querier-vlan 2

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-id</i>	VLAN list	1-128

88.19 igmp-snooping query-interval

Command function :

(no)igmp-snooping query-interval *value*

Command to configure (restore) the interval that general query message is sent

Command format :

igmp-snooping query-interval 2

no igmp-snooping query-interval

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Query message sending interval (seconds)	1-30000

88.20 igmp-snooping max-response-time

Command function :

(no)igmp-snooping max-response-time *value*

Command to configure (recover) maximum response time for a general query message

Command format :

igmp-snooping max-response-time 2

no igmp-snooping max-response-time

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Maximum response time in seconds	1-100

88.21 igmp-snooping query-source

Command function :

(no)igmp-snooping query-source *ipaddress*

Command to configure (cancel) the source IP address that sends the general query message

Command format :

igmp-snooping query-source 1.1.1.1

no igmp-snooping query-source

Parameter description :

Parameter	Parameter description :	Value range
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<i>ipaddress</i>	Configurable valid multicast IP address	32 bit binary number in format of X:X:X:X
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88.22 igmp-snooping router-port forward

Command function :

(no)igmp-snooping router-port forward

Command to configure (Cancel) Mixed Routing Port Features

Command format :

igmp-snooping router-port forward

no igmp-snooping router-port forward

Parameter description :

None

88.23 igmp-snooping router-aging-time

Command function :

(no)igmp-snooping router-aging-time *value*

Command to configure (restore) the aging time of dynamic route ports

Command format :

igmp-snooping router-aging-time 10

no igmp-snooping router-aging-time

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Router port aging time range (seconds)	10-1000000

88.24 igmp-snooping router-port vlan

Command function :

(no)igmp-snooping router-port vlan *vid* interface [all | ethernet *port-id* | eth-trunk *trunk-id*]

Command to configure (cancel) static router ports

Command format :

igmp-snooping router-port vlan 10 interface ethernet 0/0/1

no igmp-snooping router-port vlan 10 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
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<i>vid</i>	VLAN id	1-4094
<i>port-id</i>	Port-id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4
<i>trunk-id</i>	Link Aggreation ID	1-31

88.25 igmp-snooping multicast vlan

Command function :

(no)igmp-snooping multicast vlan *vid*

Command to configure (cancel) multicast vlan of port.

Command format :

igmp-snooping multicast vlan 1

no igmp-snooping multicast vlan

Parameter description :

Parameter	Parameter description :	Value range
<i>vid</i>	VLAN id	1-4094

88.26 igmp-snooping record-host

Command function :

(no)igmp-snooping record-host

Command to configure (cancel) port Record host MAC function

Command format :

igmp-snooping record-host

no igmp-snooping record-host

Parameter description :

None

88.27 igmp-snooping report-suppression

Command function :

(no)igmp-snooping report-suppression

Command to configure (cancel) Multicast report message suppression

Command format :

igmp-snooping report-suppression

no igmp-snooping report-suppression

Parameter description :

None

88.28 igmp-snooping drop

Command function :

(no)igmp-snooping drop [query|report]

Command to configure port (receive) discard query / report message

Command format :

igmp-snooping drop report
igmp-snooping drop query
no igmp-snooping drop report
no igmp-snooping drop query

Parameter description :

None

88.29 igmp-snooping preview

Command function :

(no)igmp-snooping preview

Command to configure (disable) Multicast Preview function

Command format :

igmp-snooping preview
no igmp-snooping preview

Parameter description :

None

88.30 igmp-snooping preview group-ip

Command function :

(no)igmp-snooping preview group-ip *ipaddress* **vlan** *vid* **interface ethernet** *port-id*

Command to configure(cancel) Multicast Preview function

Command format :

igmp-snooping preview group-ip 224.0.1.1 **vlan** 2 **interface ethernet** 0/0/1
no igmp-snooping preview group-ip 224.0.1.1 **vlan** 2 **interface ethernet** 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddress</i>	Multicast IP address	32 bit binary number in format of X:X:X:X
<i>vid</i>	VLAN	1-128
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

88.31 igmp-snooping preview

Command function :

(no)igmp-snooping preview [*time-once time-once* *time-interval time-interval* *time-reset time-reset* *permit-times permit-times*]

Command to configure (cancel) single preview duration, preview interval, preview reset duration and allowed preview times.

Command format :

igmp-snooping preview permit-times 1 time-interval 190 time-once 233 time-reset 1800

no igmp-snooping preview permit-times time-interval time-once time-reset

Parameter description :

Parameter	Parameter description :	Value range
<i>time-once</i>	<i>time-once</i>	60-300
<i>time-interval</i>	<i>time-interval</i>	180-600
<i>time-reset</i>	<i>time-reset</i>	1800-7200
<i>permit-times</i>	<i>permit-times</i>	1-10

88.32 igmp-snooping profile

Command function :

(no)igmp-snooping profile *profile-id*

Command to create (cancel) profile and enter profile configuration mode)

Command format :

igmp-snooping profile 1

no igmp-snooping profile 1

Parameter description :

Parameter	Parameter description :	Value range
<i>profile-id</i>	<i>profile-id</i>	1-128

88.33 profile limit

Command function :

profile limit [*permit* | *deny*]

Command to configure the profile type in igmp-profile mode

Command format :

profile limit permit

Parameter description :

Parameter	Parameter	Value range
-----------	-----------	-------------

	description :	
permit	Configure the multicast list allowed in the rules	None
deny	Configure a deny list of multicast in a rule	None

88.34 ip range

Command function :

(no)ip range *start-ip end-ip* [**vlan** *vlan-id*]

Command to configure (delete) the range of profile IP addresses in igmp-profile mode.

Command format :

ip range 224.0.1.1 224.0.1.2 **vlan** 1

no ip range 224.0.1.1 224.0.1.2 **vlan** 1

Parameter description :

Parameter	Parameter description :	Value range
<i>start-ip</i>	Start multicast IP address, range	224.0.0.1-239.255.255.254
<i>end-ip</i>	End multicast IP address, range	224.0.0.1-239.255.255.254
<i>vlan-id</i>	VLAN id	1-4094

88.35 mac range

Command function :

(no)mac range *start-mac end-mac* [**vlan** *vlan-id*]

Command to configure (delete) the profile MAC address range in igmp-profile mode

Command format :

mac range 01:00:5e:1:1:1 01:00:5e:1:1:2 **vlan** 1

no mac range 01:00:5e:1:1:1 01:00:5e:1:1:2 **vlan** 1

Parameter description :

Parameter	Parameter description :	Value range
<i>start-mac</i>	Start multicast mac address	128-bit binary, in the form of X: X: X: X: X: X
<i>end-mac</i>	End multicast mac address	128-bit binary, in the form of X: X: X: X: X: X
<i>vlan-id</i>	VLAN id	1-4094

88.36 description

Command function :

(no)description STRING<1-32>

Command to configure policy description in igmp-profile mode

Command format :

description string

no description

Parameter description :

None

88.37 igmp-snooping profile refer

Command function :

(no)igmp-snooping profile refer *profile-list*

Command to configure (cancel) the range of port profile reference addresses in port mode

Command format :

igmp-snooping profile refer 1

no igmp-snooping profile refer 1

Parameter description :

Parameter	Parameter description :	Value range
<i>profile-list</i>	Identification list	1-128 characters

88.38 show igmp-snooping

Command function :

show igmp-snooping

Command to view the related configuration of IGMP snooping

Command format :

show igmp-snooping

Parameter description :

None

88.39 show igmp-snooping router-dynamic

Command function :

show igmp-snooping router-dynamic

Command to view dynamic router ports

Command format :

show igmp-snooping router-dynamic

Parameter description :

None

88.40 show igmp-snooping router-static

Command function :

show igmp-snooping router-static

Command to view static router ports

Command format :

show igmp-snooping router-static

Parameter description :

None

88.41 show igmp-snooping record-host

Command function :

show igmp-snooping record-host [interface ethernet *port-id*]

Command to view show host record information

Command format :

show igmp-snooping record-host interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / 0 / 1 / 4

88.42 show igmp-snooping preview

Command function :

show igmp-snooping preview

Command to view multicast preview information

Command format :

```
show igmp-snooping preview
```

Parameter description :

None

88.43 show igmp-snooping preview status**Command function :**

```
show igmp-snooping preview status
```

Command to view the current multicast preview channel status

Command format :

```
show igmp-snooping preview status
```

Parameter description :

None

88.44 show igmp-snooping profile**Command function :**

```
show igmp-snooping profile [ interface ethernet port-id | vlan vlan-id]
```

Command to view the current multicast preview channel status.

Command format :

```
show igmp-snooping profile interface ethernet 0/0/1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	port-id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / - 0 / 1 / 4
<i>vlan-id</i>	vlan-id	1-4094

88.45 show multicast**Command function :**

```
show multicast [ ip-address ipadd | mac-address mac]
```

Command to view multicast table (simple) information.

Command format :

```
show igmp-snooping profile interface ethernet 0/0/1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>ipaddress</i>	ipaddress	32 bit binary number in format of X:X:X:X

<i>mac</i>	Multicast mac address	128-bit binary, in the form of X: X: X: X: X: X
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88.46 show multicast igmp-snooping

Command function :

show multicast igmp-snooping [interface ethernet *port-id* | ip-address *ipadd*]
 Command to view multicast table (details) information

Command format :

show multicast igmp-snooping interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	port-id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / -0 / 1 / 4
<i>ipadd</i>	Multicast IP address	32 bit binary number, in format of X:X:X:X

89.Static Multicast Configuration Command

89.1 multicast

Command function :

(no)mcast [mac-address *mac* | ip-address *ipadd*] vlan *vlan-id* [interface [all | *port-id*]]

Command to add (delete) member ports to static multicast groups

Command format :

mcast ip-address 224.0.1.1 vlan 2 interface ethernet 0/0/1
no mcast ip-address 224.0.1.1 vlan 2 interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>mac</i>	Multicast mac address	128-bit binary, in the form of X: X: X: X: X: X
<i>ipadd</i>	Multicast IP address	32 bit binary number, in format of X:X:X:X
<i>vlan-id</i>	VLAN id	1-4094
<i>port-id</i>	P	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 - 0 / 1 / 4

89.2 multicast

Command function :

(no)multicast [mac-address *mac* | ip-address *ipadd*] vlan *vlan-id* proxy-port ethernet *port-id*

Command to create proxy ports for static multicast groups

Command format :

multicast ip-address 224.0.1.1 vlan 2 proxy-port ethernet 0/0/1

no multicast ip-address 224.0.1.1 vlan 2 proxy-port ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>mac</i>	Multicast mac address	128-bit binary, in the form of X: X: X: X: X: X
<i>ipadd</i>	Multicast ip address	32 bit binary number, in format of X:X:X:X
<i>vlan-id</i>	VLAN id	1-4094
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1-0 / 1 / 4

89.3 multicast proxy-interval

Command function :

(no)multicast proxy-interval *value*

Command to configure (restore) the interval the proxy port sends the report to the multicast source

Command format :

multicast proxy-interval 10

no multicast proxy-interval

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Time interval (seconds), default 10 seconds	1-300

89.4 show multicast

Command function :

show multicast

Command to view multicast table information

Command format :

show multicast

Parameter description :

none

90.MLD-Snooping Configuration command

90.1 mld-snooping

Command function :

(no)mld-snooping

Command switch multicast listening discovery protocol

Command format :

mld-snooping

no mld-snooping

Parameter description :

none

90.2 mld-snooping host-aging-time time

Command function :

(no)mld-snooping host-aging-time *time*

Command to configure (recover) dynamic Multicast Port membership Aging time

Command format :

mld-snooping host-aging-time 10

no mld-snooping host-aging-time

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Aging time (s)	10-1000000

90.3 mld-snooping max-response-time

Command function :

(no)mld-snooping max-response-time *time*

Command to configure (recover) leave maximum response time

Command format :

mld-snooping max-response-time 1

no mld-snooping max-response-time

Parameter description :

Parameter	Parameter description :	Value range
<i>time</i>	Maximum response time (s)	1-100

90.4 mld-snooping fast-leave

Command function :

(no)mld-snooping fast-leave

Command to configure (delete) port for fast leave mode.

Command format :

mld-snooping fast-leave

no mld-snooping fast-leave

Parameter description :

None

90.5 mld-snooping group-limit

Command function :

(no)mld-snooping group-limit *number*

Command to configure (delete) port maximum number of multicast to learn

Command format :

mld-snooping group-limit 1

no mld-snooping group-limit

Parameter description :

Parameter	Parameter description :	Value range
<i>number</i>	Multicast group number	0-1020

90.6 mld-snooping [permit | deny]

Command function :

mld-snooping [permit | deny] [group all | vlan *vid*]

Command to configure the default learning rules for multicast groups that are not on the black-and-white list

Command format :

mld-snooping permit group all

Parameter description :

Parameter	Parameter description :	Value range
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<i>vid</i>	VLAN List	1-128
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90.7 mld-snooping

Command function :

mld-snooping [permit | deny] group-range *mac* multi-count *num* vlan *vid*

(no)mld-snooping [permit | deny] group *mac* vlan *vid*

Command to configure the multicast black-and-white list of ports

Command format :

mld-snooping permit group-range 33:33:33:1:1:1 multi-count 2 vlan 1

mld-snooping permit group 33:33:33:1:1:1 vlan 1

no mld-snooping permit group 33:33:33:1:1:1 vlan 1

Parameter description :

Parameter	Parameter description :	Value range
<i>mac</i>	Multicast MAC address	33:33:XX:XX:XX:XX
<i>num</i>	Number of MAC addresses	1-64
<i>vid</i>	VLAN id	1-4094

90.8 mld-snooping querier

Command function :

(no)mld-snooping querier

Command to enable or disable the query

Command format :

mld-snooping querier

no mld-snooping querier

Parameter description :

None

90.9 mld-snooping query-interval

Command function :

(no)mld-snooping query-interval *value*

Command to configure (recover) interval for general query messages

Command format :

mld-snooping query-interval 2

no mld-snooping query-interval

Parameter description :

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

<i>value</i>	Query message send interval (seconds)	1-30000
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90.10 mld-snooping query-max-respond

Parameter description :

(no)mld-snooping query-max-respond *value*

Command to configure (recover) maximum response time for a general query message.

Command format :

mld-snooping query-max-respond 2
no mld-snooping query-max-respond

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Maximum response time(s)	1-25

90.11 mld-snooping router-port forward

Parameter description :

(no)mld-snooping router-port forward

Command to configure (cancel) hybrid router port function

Command format :

mld-snooping router-port forward
no mld-snooping router-port forward

Parameter description :

None

90.12 mld-snooping router-port-age

Parameter description :

(no)mld-snooping router-port-age [on | off | *age-time*]

Command to configure (cancel) the aging time of dynamic router ports

Command format :

mld-snooping router-port-age 10
no mld-snooping router-port-age

Parameter description :

Parameter	Parameter description :	Value range
-----------	-------------------------	-------------

<i>age-time</i>	age-time	10-1000000
-----------------	----------	------------

90.13 mld-snooping router-port vlan

Parameter description :

(no)mld-snooping router-port vlan *vid* interface [all | ethernet *port-id*]

Command to configure (delete) static router ports

Command format :

mld-snooping router-port vlan 1 interface all

no mld-snooping router-port vlan 1 interface all

Parameter description :

Parameter	Parameter description :	Value range
<i>vid</i>	VLAN id	1-4094
<i>port-id</i>	port-id	According to the physical port of the switch, for example, the 28-port- switch: 0/0/1-0/1/4

90.14 mld-snooping multicast vlan

Parameter description :

(no)mld-snooping multicast vlan *vid*

Command to configure (cancel) port multicast VLAN

Command format :

mld-snooping multicast vlan 1

no mld-snooping multicast vlan

Parameter description :

Parameter	Parameter description :	Value range
<i>vid</i>	VLAN id	1-4094

90.15 show mld-snooping

Parameter description :

show mld-snooping

Command to view the configuration of the multicast listening discovery protocol

Command format :

show mld-snooping

Parameter description :

None

90.16 show mld-snooping router-dynamic

Parameter description :

show mld-snooping router-dynamic

Command to view dynamic router ports

Command format :

show mld-snooping router-dynamic

Parameter description :

None

90.17 show mld-snooping router-static

Parameter description :

show mld-snooping router-static

Command to view static router ports

Command format :

show mld-snooping router-static

Parameter description :

None

90.18 show multicast mld-snooping

Parameter description :

show multicast mld-snooping

Command to view multicast groups

Command format :

show multicast mld-snooping

Parameter description :

None

91.LLDP

91.1 Ildp

Command function :

[no] Ildp Command for link discovery protocol functional switches

Command format :

no Ildp
Ildp

Parameter Declaration

/

91.2 Ildp rx | tx | rxtx

Command function :

Ildp [rxtx | tx | rx] Configuration Commands Work Pattern

Command format :

Ildp rxtx

Parameter Declaration

Parameter	Parameter Declaration	Values
rxtx	Both send and receive LLDP messages, ports work in the default mode.	/
tx	Only send LLDP message	/
rx	Only receive LLDP message	/

91.3 Ildp hello-time

Command function :

[no] **lldp hello-time** *value* Command configuration (delete) HELLO time

Command format :

lldp hello-time 5
no lldp hello-time

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>value</i>	Link discovery protocol HELLO time: (second)	5-32768

91.4 lldp hold-times

Command function :

[no] **lldp hold-times** *value* Command configuration (delete) timeout times

Command format :

lldp hold-times 5
no lldp hold-times

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>value</i>	Link discovery protocol timeout times	2-10

91.5 lldp management-address

Command function :

[no] **lldp management-address** [supervlan-interface *value1* | vlan-interface *value2*]
 Command configuration LLDP (delete) management address

Command format :

lldp management-address supervlan-interface 1
no lldp management-address

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>value1</i>	Super VLAN ID Range	1-128
<i>value2</i>	VLAN Interface ID	1-4094

91.6 show lldp interface

Command function :

show lldp interface [ethernet *port-id*] Command view link discovery configuration information display

Command format :

show lldp interface ethernet 0/0/1

Parameter Declaration

Parameter	Parameter Declaration	Values
port-id	Port number	Based on the physical port of the switch , for example,28 ports switch : 0/0/1-0/1/4

92.UDLD Configuration Command

92.1 udd

Command function :

[no] udd Command for unidirectional link detection functional switch

Command format :

no udd
udd

Parameter Declaration

/

92.2 udd error-down

Command function :

[no] udd error-down [recover | recover-time *times*]command for configuring (delete) one-way link detection error status processing

Command format :

udd error-down recover-time 30
no udd error-down recover-time

Parameter Declaration

Parameter	Parameter Declaration	Values
recover	Configuring unidirectional link detection error state recovery enabling	/
recover-time <i>times</i>	Configuring one-way link detection error status recovery time (seconds), default 30 seconds.	30-86400

92.3 udd message-interval

Command function :

udd message-interval *time* command configuration unidirectional link detection'hello'message sending time interval

Command format :

udld message-interval

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>time</i>	Message sending time interval (second), default 15 seconds	7-90

92.4 udld reset

Command function :

udld reset Command to reset one-way link detection in port or global mode

Command format :

udld reset

Parameter Declaration

/

92.5 udld port shutdown

Command function :

[no]udld port shutdown Command to configure (delete) one-way link detection close port in port mode.

Command format :

udld port shutdown
no udld port shutdown

Parameter Declaration

/

92.6 udd unidirectional-shutdown

Command function :

udd unidirectional-shutdown [auto | manual] The command configures one-way port detection in port mode and detects the closing mode of single port, and automatically closes by default.

Command format :

udd unidirectional-shutdown auto

Parameter Declaration

Parameter	Parameter Declaration	Values
auto	Automatic closing the port	/
manual	Manually closing the port	/

92.7 udd work-mode

Command function :

udd work-mode [aggressive| normal] Command configures one-way link detection mode in port mode, default to normal mode.

Command format :

udd work-mode aggressive

Parameter Declaration

Parameter	Parameter Declaration	Values
aggressive	Unidirectional link detection work mode is radical model	/

normal	One way link detection mode is normal mode	/
--------	--	---

92.8 show udd interface

Command function :

show udd interface [ethernet *port-id*] command to view unidirectional link detection configuration information display

Command format :

show udd interface ethernet 0/0/1

Parameter Declaration

Parameter	Parameter Declaration	Values
port-id	Port number	Based on the physical port of the switch , for example,28 ports switch : 0/0/1-0/1/4 : 0/0/1-0/1/4

93.EFM Configuration command

93.1 efm

Command function :

(no)efm

Command to configure the switch in port mode and disable by default

Command format :

efm

Parameter description :

None

93.2 efm mode

Command function :

efm mode [passive | active]

Command to configure work mode in port mode

Command format :**efm mode passive****Parameter description :**

Parameter	Parameter description :	Value range
passive	passive mode	none
active	active mode	none

93.3 efm pdu-timeout

Command function :**(no)efm pdu-timeout *value***

Command to configure (restore) handshake message sending interval in port mode.

Command format :**efm pdu-timeout 1****no efm pdu-timeout****Parameter description :**

Parameter	Parameter description :	Value range
<i>value</i>	The sending period of OAMPDU (in seconds, the default value is 1s)	1-60

93.4 efm link-timeout

Command function :**(no)efm link-timeout *value***

Command to configure (restore) the timeout of the connection in port mode

Command format :**efm link-timeout 10****no efm link-timeout****Parameter description :**

Parameter	Parameter description :	Value range
<i>value</i>	efm link-timeout (second),the default value is 5s	3-300

93.5 efm remote-response-timeout

Command function :

(no)efm remote-response-timeout *value*

Command to configure (restore) response timeout in port mode

Command format :

efm remote-response-timeout 10

Parameter description :

Parameter	Parameter descriptio	Value range
<i>value</i>		1-10

93.6 efm remote-failure

Command function :

(no)efm remote-failure [link-fault | dying-gasp | critical-event]

Command to enable(disable) remote failure detection function in port mode

Command format :

efm remote-failure link-fault

no efm remote-failure link-fault

Parameter description :

none

93.7 efm link-monitor

Command function :

```
(no)efm link-monitor [ errored-symbol-period | errored-frame | errored-frame-period
|
errored-frame-seconds ]
```

Command to enable (disable) efm link-monitor function in port mode

Command format :

```
efm link-monitor errored-frame-period
no efm link-monitor errored-frame-period
```

Parameter description :

None

93.8 efm link-monitor errored-symbol-period window

Command function :

```
(no)efm link-monitor errored-symbol-period window high win-value1 low
win-value2
```

Command to configure (restore) the detection window for events during error symbols in port mode

Command format :

```
efm link-monitor errored-symbol-period window high 2 low 2
no efm link-monitor errored-symbol-period window
```

Parameter description :

Parameter	Parameter description :	Value range
<i>win-value1</i>	Configure error symbol duration event parameters (4 bytes high)	0-4294967295
<i>win-value2</i>	Configure error symbol duration event parameters (4 bytes low)	0-4294967295

93.9 efm link-monitor errored-symbol-period threshold

Command function :

```
(no)efm link-monitor errored-symbol-period threshold high th-value1 low
th-value2
```

Command to configure (restore) the detection threshold for events during error symbols in port mode

Command format :

efm link-monitor errored-symbol-period threshold high 2 low 2
no efm link-monitor errored-symbol-period threshold

Parameter description :

Parameter	Parameter description :	Value range
<i>th-value1</i>	Configure error symbol duration event parameters (4 bytes high)	0-4294967295
<i>th-value2</i>	Configure error symbol duration event parameters (4 bytes low)	0-4294967295

93.10 efm link-monitor errored-frame window

Command function :

(no)efm link-monitor errored-frame window *win-value*

Command is configured in port mode to recover the detection window for error frame events

Command format :

efm link-monitor errored-frame window 10
no efm link-monitor errored-frame window

Parameter description :

Parameter	Parameter description :	Value range
<i>win-value</i>	Configure the window generated by the error frame event (in ms)	10-600

93.11 efm link-monitor errored-frame threshold

Command function :

(no)efm link-monitor errored-frame threshold *th-value*

Command to configure (recover) the detection threshold for error frame events in port mode

Command format :

efm link-monitor errored-frame threshold 1
no efm link-monitor errored-frame threshold

Parameter description :

Parameter	Parameter description :	Value range
<i>th-value</i>	Configure the threshold generated by the error frame event (number of error frames)	1-4294967295

93.12 efm link-monitor errored-frame-period window

Command function :

(no)efm link-monitor errored-frame-period window *win-value*
 Command to configure (recover) event detection window during the wrong frame in port mode.

Command format :

efm link-monitor errored-frame-period window 10
no efm link-monitor errored-frame-period window

Parameter description :

Parameter	Parameter description :	Value range
<i>win-value</i>	Configure windows (frames) generated by events during error frames	1-4294967295

93.13 efm link-monitor errored-frame-period threshold

Command function :

(no)efm link-monitor errored-frame-period threshold *th-value*
 Command to configure (restore) detection threshold for event during error frame in port mode.

Command format :

efm link-monitor errored-frame-period threshold 1
no efm link-monitor errored-frame-period threshold

Parameter description :

Parameter	Parameter description :	Value range
<i>th-value</i>	Configure threshold generated by event during Error frame period. (Number of error frames)	1-4294967295

93.14 efm link-monitor errored-frame-seconds window

Command function :

(no)efm link-monitor errored-frame-seconds window *win-value*

Command to configure (restore) the detection window for error frame-second profile events in port mode.

Command format :

efm link-monitor errored-frame-seconds window 100
no efm link-monitor errored-frame-seconds window

Parameter description :

Parameter	Parameter description :	Value range
<i>win-value</i>		100-9000

93.15 efm link-monitor errored-frame-seconds threshold

Command function :

(no)efm link-monitor errored-frame-seconds threshold *th-value*

Command to configure (recover) the efm link-monitor errored-frame-seconds threshold in port mode.

Command format :

efm link-monitor errored-frame-seconds threshold 1
no efm link-monitor errored-frame-seconds threshold

Parameter description :

Parameter	Parameter description :	Value range
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<i>th-value</i>	Configure efm link-monitor errored-frame-seconds threshold(error seconds)	1-900
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93.16 efm remote-loopback

Command function :

(no)efm remote-loopback

Command to enable (disable) the remote-loopback function in port mode

Command format :

efm remote-loopback

no efm remote-loopback

Parameter description :

None

93.17 efm remote-loopback ignore

Command function :

efm remote-loopback ignore

Command to efm remote-loopback ignore in port mode

Command format :

efm remote-loopback ignore

Parameter description :

None

93.18 efm remote-loopback process

Command function :

efm remote-loopback process

Command to process remote loopback requests initiated by the remote in port mode

Command format :

efm remote-loopback process

Parameter description :

None

93.19 efm remote-loopback start|stop

Command function :

efm remote-loopback [start | stop]

Command to start (stop) remote loopback requests in port mode

Command format :

efm remote-loopback start

Parameter description :

None

93.20 efm variable-retrieval

Command function :

(no)efm variable-retrieval

Command to enable (disable) remote MIB variable acquisition function in port mode

Command format :

efm variable-retrieval

no variable-retrieval

Parameter description :

None

93.21 show efm port

Command function :

show efm port *port-id-list* **remote-mib** [**phyadminstate** | **autonegadminstate**]

Command to get the port MIB variable value of the remote device in port mode.

Command format :

show efm port 1 remote-mib autonegadminstate

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id-list</i>	Port Number List (Port Range : 1 - 254)	1-64 characters

93.22 show efm remote-mib

Command function :

show efm remote-mib [**fecability** | **fecmode**]

Command to get the global MIB variable value of the remote device in port mode

Command format :

```
show efm remote-mib fecability
```

Parameter description :

None

93.23 show efm status interface**Command function :**

```
show efm status interface [ ethernet port-id ]
```

Command to show EFM protocol run status

Command format :

```
show efm statistics interface ethernet 0/0/1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	port id	Depending on the physical port of the switch, for example, 28 port switch: 0 / 0 / 1 / 0 / 1 / 4

93.24 show efm summary**Command function :**

```
show efm summary
```

Command to show EFM profile information

Command format :

```
show efm summary
```

Parameter description :

None

93.25 show efm discovery interface**Command function :**

```
show efm discovery interface [ ethernet port-id ]
```

Command to show EFM discovery information

Command format :

```
show efm discovery interface ethernet 0/0/1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	port id	Depending on the physical port of the

		switch, for example, 28 -port -switch: 0 / 0 / 1 / - 0 / 1 / 4
--	--	--

93.26 show efm statistics interface

Command function :

show efm statistics interface [ethernet *port-id*]

Command to show EFM protocol message statistics

Command format :

show efm statistics interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28-port-switches: 0 / 0 / 1 - 0 / 1 / 4

93.27 clear efm statistics interface

Command function :

clear efm statistics interface [ethernet *port-id*]

Command to clear EFM protocol message statistics

Command format :

clear efm statistics interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depending on the physical port of the switch, for example, 28-port-switch: 0 / 0 / 1 - 0 / 1 / 4

94.CFM Configuration command

94.1 cfm md

Command function :

cfm md *md-index*

Command enter Maintenance domain configuration mode

Command format :

cfm md 1**Parameter description :**

Parameter	Parameter description :	Value range
<i>md-index</i>	Maintain domain index	1-4294967295

94.2 no cfm md**Command function :**

no cfm md *md-index*

Command deletes the maintenance domain

Command format :

no cfm md 1

Parameter description :

Parameter	Parameter description :	Value range
<i>md-index</i>	Maintain domain index	1-4294967295

94.3 cfm md format none level**Command function :**

cfm md format none level *md-level*

Command to configure an unnamed maintenance domain in cfm-md mode, only specify the level of the maintenance domain

Command format :

cfm md format none level 2

Parameter description :

Parameter	Parameter description :	Value range
<i>md-level</i>	Maintain the level of the domain	0-7

94.4 cfm md format**Command function :**

cfm md format [**dns-name name** *dns-name* | **mac-uint name** *mac-name* | **string name** *string-name*] **level** *md-level*

Configure a nameless maintenance domain in mode, only specify the level of the maintenance domain

Command format :

cfm md format mac-uint name 00:0a:5a:00:00:01-12 level 2

Parameter description :

Parameter	Parameter description :	Value range
<i>dns-name</i>	The domain name of the string, following the syntax of the RFC1035 DNS name	1-43 Character
<i>mac-name</i>	MAC address + 2-byte unsigned integer value	13-23 Character
<i>string-name</i>	Any string	1-43 Character
<i>md-level</i>	Maintain the level of the domain	0-7

94.5 cfm ma**Command function :**

cfm ma *ma-index*

Command creates the maintenance set in cfm-md mode and enters the maintenance set configuration mode

Command format :

cfm ma 1

Parameter description :

Parameter	Parameter description :	Value range
<i>ma-index</i>	Maintain set index	1-4294967295

94.6 no cfm ma**Command function :**

no cfm ma *ma-index*

Command to delete the maintenance set configuration in cfm-md mode

Command format :

no cfm ma 1

Parameter description :

Parameter	Parameter description :	Value range
<i>ma-index</i>	Maintain set index	1-4294967295

94.7 cfm ma format

Command function :

cfm ma format [primary-vid *vlan-name* | string *string* | uint16 *uint16-name* | vpn-id *vpn-name*] **primary-vlan** *vlan-id*

Command format :

cfm ma format string name df primary-vlan 2

Parameter description :

Parameter	Parameter description :	Value range
<i>vlan-name</i>	Main vlan identification (1-4094)	1-4094
<i>string</i>	Any string	1-45 Character
<i>uint16-name</i>	2-byte unsigned integer value (0-65535)	0-65535
<i>vpn-name</i>	RFC2685 VPN ID (3 byte VPN OUI + 4 byte VPN index)	3-17 Character
<i>vlan-id</i>	Vlan-id	1-4094

94.8 cfm mep

Command function :

cfm mep *mep-id* **direction** [up | down] [**primary-vlan** *vlan-id*] **interface ethernet** *port-id*

Command creates the maintenance endpoint in cfm-md-ma mode and specify its associated port.

Command format :

cfm mep 1 direction down interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP id	1-8191
<i>vlan-id</i>	Main vlan id	1-4094
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28 port switch: 0 / 0 / 1- 0 / 1 / 4

94.9 cfm mep

Command function :

cfm mep *mep-id* state [enable | disable]

Command to enable (disable) the maintenance state of the endpoint in cfm-md-ma mode.

Command format :

cfm mep 1 state disable

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191

94.10 cfm mep

Command function :

(no)cfm mep *mep-id* priority *priority-id*

Command to configure (delete) the priority used by the endpoint to send CCM and LTM in cfm-md-ma mode.

Command format :

cfm mep 1 priority 1

no cfm mep 1 priority

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP id	1-8191
<i>priority-id</i>	Priority identification	0-7

94.11 cfm rmep

Command function :

(no)cfm rmep *rmep-id* mep *mep-id*

Command creates (deletes) a remote maintenance endpoint in cfm-md-ma mode and specify its peer native maintenance endpoint

Command format :

```
cfm rmep 1 mep 1
no cfm rmep 1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>rmep-id</i>	RMEP id	1-8191
<i>mep-id</i>	MEP id	1-8191

94.12 cfm mip

Command function :

```
(no)cfm mip mip-id interface ethernet port-id
```

Command to create (delete) maintain intermediate point in cfm-md-ma mode and specify its associated port

Command format :

```
cfm mip 1 interface ethernet 0/0/1
no cfm mip 1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>mip-id</i>	MIP identification	1-8191
<i>port-id</i>	Port identification	Depend on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 / 0 / 1 / 4

94.13 cfm cc interval

Command function :

```
(no)cfm cc interval [ 1 | 10 | 60 | 600 ]
```

Command to create (delete) the interval that maintenance endpoint sends the CCM in cfm-md-ma mode

Command format :

```
cfm cc interval 1
no cfm cc interval
```

Parameter description :

None

94.14 cfm mep

Command function :

cfm mep *mep-id* **cc** [enable | disable]

Command enables (disable) to maintain the ccm sending function of the endpoint in cfm-md-ma mode.

Command format :

cfm mep 1 cc enable

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191

94.15 cfm loopback mep

Command function :

cfm loopback mep *mep-id* [**dst-mac** *mac-address* | **dst-mep** *rmep-id*] [**priority** *pri-id* |

count *pkt-num* | **length** *data-len* | **data** *pkt-data*]

Command to enable loopback function in cfm-md-ma mode

Command format :

cfm loopback mep 1 dst-mep 2 count 1 data 2 priority 2 length 2

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191
<i>mac-address</i>	Destination MAC address	48-bit binary in X:X:X:X:X:X format
<i>rmep-id</i>	RMEP identification	1-8191
<i>pri-id</i>	message priority	0-7
<i>pkt-num</i>	Number of messages	1-1024
<i>data-len</i>	Length of data carried in a message	1-1500
<i>pkt-data</i>	Contents of data carried in a message	1-400

94.16 cfm linktrace mep

Command function :

```
cfm linktrace mep mep-id [ dst-mac mac-address | dst-mep rmep-id ] [ timeout
pkt-time | ttl
pkt-ttl | flag [ use-mpdb | unuse-mpdb ] ]
```

Command to enable linktrace function in cfm-md-ma mode

Command format :

```
cfm linktrace mep 1 dst-mep 2 count 1 data 2 priority 2 length 2
```

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191
<i>mac-address</i>	Destination MAC address	48-bit binary in X:X:X:X:X:X format
<i>rmep-id</i>	RMEP identification	1-8191
<i>pkt-time</i>	Timeout < 3-60 > seconds	3-60
<i>pkt-ttl</i>	Initial TTL value	1-255

94.17 cfm eth-slm mep

Command function :

```
cfm eth-slm mep mep-id [ dst-mac mac-address | dst-mep rmep-id ] [ timeout
pkt-time |
priority priority-id | interval second | count packet-num ]
```

Command performs frame loss rate detection function in cfm-md-ma mode

Command format :

```
cfm eth-slm mep 1 dst-mep 1 timeout 3 priority 3 interval 2 count 3
```

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191
<i>mac-address</i>	Destination MAC address	48-bit binary in X:X:X:X:X:X format
<i>rmep-id</i>	RMEP identification	1-8191
<i>pkt-time</i>	Timeout < 3-60 > seconds	3-60
<i>pri-id</i>	message priority	0-7
<i>second</i>	Interval time	1-30

	(seconds)	
<i>pkt-num</i>	Number of messages	1-1024

94.18 cfm eth-2dm mep

Command function :

cfm eth-2dm mep *mep-id* [**dst-mac** *mac-address* | **dst-mep** *rmep-id*] [**timeout** *pkt-time* |

priority *priority-id*] **interval** *second* [**count** *packet-num*]

Command to perform frame delay measurement in cfm-md-ma mode

Command format :

cfm eth-2dm mep 1 dst-mep 1 timeout 3 priority 3 interval 2 count 3

Parameter description :

Parameter	Parameter description :	Value range
<i>mep-id</i>	MEP identification	1-8191
<i>mac-address</i>	Destination MAC address]48-bit binary in X:X:X:X:X:X format
<i>rmep-id</i>	RMEP identification	1-8191
<i>pkt-time</i>	Timeout time<3-60>s	3-60
<i>pri-id</i>	message priority	0-7
<i>second</i>	Interval time (s)	1-30
<i>pkt-num</i>	Number of messages	1-1024

94.19 clear cfm cc

Command function :

clear cfm cc

Command clears CCM statistics information

Command format :

clear cfm cc

Parameter description :

None

94.20 clear cfm cc database

Command function :

clear cfm cc database

Command to clear the CCM database information

Command format :

```
clear cfm cc database
```

Parameter description :

None

94.21 show cfm md**Command function :**

```
show cfm md [ md-index ]
```

Command to show maintenance domain information

Command format :

```
show cfm md 1
```

Parameter description :

Parameter	Parameter description :	Value range
<i>md-index</i>	Maintain domain index	1-4294967295

94.22 show cfm ma**Command function :**

```
show cfm ma
```

Command format :

```
show cfm ma
```

Parameter description :

None

94.23 show cfm mp local**Command function :**

```
show cfm mp local
```

Command to show local maintenance point information

Command format :

```
show cfm mp local
```

Parameter description :

None

94.24 show cfm mp remote

Command function :

show cfm mp remote

Command to show remote maintenance point information

Command format :

show cfm mp remote

Parameter description :

None

94.25 show cfm cc

Command function :

show cfm cc

Command to show CCM statistics information

Command format :

show cfm cc

Parameter description :

None

94.26 show cfm cc database

Command function :

show cfm cc database

Command to show CCM database information

Command format :

show cfm cc database

Parameter description :

None

94.27 show cfm errors

Command function :

show cfm errors

Command to show CFM alarm information

Command format :

show cfm errors

Parameter description :

None

95.Static route configuration commands

95.1 ip route

Command function :

ip route
IP route add static routing entries

Command format :

ip route *dst-net mask next-hop*
no ip route *dst-net mask [next-hop]*

Parameter description :

Parameter	Parameter description :	Value
dst-net	Destination network address	0.0.0.0-223.255.255.254
mask	Destination network mask	0.0.0.0-255.255.255.255
next-hope	Next ip address	You must configure the subnet vlan address on the Layer 3 interface.

95.2 show ip route

Command function :

show ip route
Check routing table entries

Command format :

show ip route [*ip-address [mask]*] | *static* | *rip* | *ospf* | *isis*]

Parameter description :

Parameter	Parameter description :	Value
ip-address	Route entry network	0.0.0.0-255.255.255.255
mask	Route entry mask	0.0.0.0-255.255.255.255
static	Check static routes	
rip	View rip routing table	
ospf	View ospf routing table	

isis	View isis routing table	
------	-------------------------	--

96 IPv6 static route configuration command

96.1 ipv6 route

Command function :

Add static routing entries

Command format :

ipv6 route [*dst-net/len*] *dst-net mask* *next-hop*

no ip route *dst-net mask* [*next-hop*]

Parameter description :

Parameter	Parameter description :	Value
dst-net	Destination network address	
len	Mask length	
mask	mask	
next-hope	Next ip address	You must configure the subnet vlan address on the Layer 3 interface.

96.2 show ipv6 route

Command function :

Check routing table entries

Command format :

show ipv6 route

Parameter description :

None

97. Access control list configuration command

97.1 access-list

Command function :

access-list *num* match-order [auto] config] Command configuration ACL matching order

Command format :

access-list 1999 match-order auto

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>num</i>	Access control list number	1-1999

97.2 access-list ip-acl

Command function :

access-list ip-acl *num* [match-order [auto | config]] Command three layer access control list
 { **permit | deny** } [ip-pro *protocol*] [**established**] { *source-IPv4/v6/masklength* | **any** | **ipv6any** } [*source-port wildcard*] { *dest-IPv4/v6 dest-wildcard* | **any** | **ipv6any** } [*dest-port wildcard*] [*icmp-type icmp-code*] [*igmp-type*] [**traffic-class traffic-class**][**precedence precedence**] [**tos tos**] | [**dscp dscp**] [**fragments**][**time-range name**] Command three layer access control list

Command format :

access-list ip-acl 1
permit any any
access-list 1 permit any any

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>num</i>	Three layer access control list number	1-999
<i>protocol</i>	The type of protocol hosted by IP	The range of time value is 1~255 When expressed in a name, you can choose GRE 、 ICMP 、 IGMP 、 IPinIP 、 OSPF 、 TCP 、 UDP 、 ICMPv6 。
established	The SYN marker in TCP	SYN mark position 1
{ <i>source-IPv4/v6/masklength</i> any ipv6any }	Source address information of the specified ACL rule	<i>Source-IPv4/v6/masklength</i> is used to determine the source IP address (IPv4/v6) scope of the packet. The address of IPv4 is expressed in decimal notation; the IPv6 address is expressed in sixteen hexadecimal. <i>Masklen</i> is 32 when the host address is represented; <i>Any</i> <i>ipv6any</i> represents an arbitrary source address.
{ <i>dest-IPv4/v6/masklength</i> any ipv6any }	Destination information for specifying the ACL rule	<i>Dest-IPv4/v6 dest-wildcard</i> is used to determine the destination IP address (IPv4/v6) range, IPv4 address is expressed in dot decimal notation, and IPv6 address is represented in sixteen hexadecimal. When <i>masklength</i> is 32, the host address is represented; <i>Any</i> <i>ipv6any</i> represents an arbitrary destination address.
<i>source-port/dest-port wildcard</i>	TCP/UDP source and destination port number	<i>Wildcard - counter - determine the range of port number</i>
<i>icmp-type</i> <i>icmp-code</i>	The type of ICMP message	Only when the protocol is configured to be <i>icmp/icmpv6</i>
<i>igmp-type</i>	IGMP protocol message type	Only when the protocol is configured to be <i>IGMP</i>
traffic-class	<i>l</i> pv6 <i>headlinetraffic-cl</i> ass	Only valid for IPv6 message

precedence	precedence message priority	IP priority range 0~7
tos	Tos message priority	Range 0~15
dscp	DSCP priority	Range0~63
fragments	Presentation of a piecewise message	The definition rules are valid only for non - chip slices
time-range <i>name</i>	custom Time and name	Except? 1-32 characters outside

97.3 no access-list

Command function :

no access-list [*num* | all | step] Command deletion based on digital ACL

Command format :

no access-list 1

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>num</i>	Access control list number	1-2999

97.4 access-list mac-acl

Command function :

access-list *num* { **permit** | **deny** } [*mac-pro protocol*] [**cos** *vlan-pri*] **ingress** { { [**inner-vid** *vid*] [*start-vlan-id end-vlan-id*] [*source-mac-addr source-mac-wildcard*] [**interface** *interface-num*] } | **any** } **egress** { { [*dest-mac-addr dest-mac-wildcard*] [**interface** *interface-num*] } | **any** } [**time-range** *name*] Command two layer access control list

Command format :

```
access-list mac-acl 1000 match-order auto
permit any any
access-list 1000 permit any any
```

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>num</i>	Two layer access control list number	1000-1999
<i>protocol</i>	Protocol type of Ethernet frame load	In sixteen, the range is 0-FFFF. Optional ARP, IP, RARP
Cos	The priority of the Vlan label	0-7
Ingress	Direction of entry	/
inner-vid	The inner layer vid value of a double tag message	1-4094
<i>start-vlan-id</i> <i>end-vlan-id</i>	Used to represent the range of Vlan	If the dual tag message is the vid range of the outer tag, the single tag message is the vid range of the tag itself.
<i>source-mac-addr</i> <i>source-mac-wildcard</i>	Source MAC address options	Source-mac-wildcard can represent the source MAC range.
interface <i>interface-num</i>	Physical port number	Into ports and out ports
any	Any address	Into ports and out ports
time-range <i>name</i>	custom Time and name	Except? 1-32 characters outside

97.5 access-list hybrid-acl

Command function :

```
access-list num { permit | deny } [ mac-pro protocol ] [ ip-pro protocol ] [ cos vlan-pri ]
[ established ] { source-IPv4/v6/masklength | any | ipv6any } [source-port wildcard ]
ingress { { [ inner-vid vid ] [start-vlan-id end-vlan-id ] [ source-mac-addr
source-mac-wildcard ] [ interface interface-num ] } | any } egress { { [ dest-mac-addr
```

dest-mac-wildcard [**interface** *interface-num*] } | **any** } { *dest-IPv4/v6 dest-wildcard* | **any** | **ipv6any** } [*dest-port wildcard*] [*icmp-type icmp-code*] [*igmp-type*] [**traffic-class traffic-class**] [**precedence precedence**] [**tos tos**] | [**dscp dscp**] [**fragments**] [**time-range name**] Command configuration of a mixed access control list

Command format :

access-list 2000 permit anyip anyip
access-lis 2000 permit anymac anymac

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>num</i>	Two layer access control list number	2000-2999
<i>mac-pro protocol</i>	Protocol type of Ethernet frame load	In sixteen, the range is 0-FFFF. Optional ARP, IP, RARP
Cos	The priority of the Vlan label	0-7
Ingress	Direction of entry	/
inner-vid	The inner layer vid value of a double tag message	1-4094
<i>start-vlan-id end-vlan-id</i>	Used to represent the range of Vlan	If the dual tag message is the vid range of the outer tag, the single tag message is the vid range of the tag itself.
<i>source-mac-addr source-mac-wildcard</i>	Source MAC address options	Source-mac-wildcard can represent the source MAC range
interface interface-num	Physical port number	Into ports and out ports
any	Any address	Into ports and out ports
<i>ip-pro protocol</i>	The type of protocol hosted by IP	The range of time value is 1~255 When names are used, you can select GRE, ICMP, IGMP, IPinIP, OSPF, TCP, UDP, ICMPv6.
established	The SYN marker in TCP	SYN mark position 1
{ <i>source-IPv4/v6/masklength</i> any	Source address information of the	<i>Source-IPv4/v6/masklength</i> is used to determine the source IP address (IPv4/v6)

ipv6any }	specified ACL rule	<i>scope of the packet. The address of IPv4 is expressed in decimal notation; the IPv6 address is expressed in sixteen hexadecimal. Masklen is 32 when the host address is represented; Any ipv6any represents an arbitrary source address.</i>
{ dest-IPv4/v6 / masklength any ipv6any }	Destination information for specifying the ACL rule	Dest-IPv4/v6 dest-wildcard is used to determine the destination IP address (IPv4/v6) range, IPv4 address is expressed in dot decimal notation, and IPv6 address is represented in sixteen hexadecimal. When masklength is 32, the host address is represented; Any ipv6any represents an arbitrary destination address.
<i>source-port/ dest-port wildcard</i>	TCP/UDP source and destination port number	<i>Wildcard - counter - determine the range of port number</i>
icmp-type icmp-code	The type of ICMP message	Only when the protocol is configured to be icmp/icmpv6
<i>igmp-type</i>	IGMP protocol message type	Only when the protocol is configured to be IGMP
traffic-class	Ipv6 headers traffic-class	Only valid for IPv6 message
precedence	precedence message priority	IP priority range 0~7
tos	Tos message priority	Range0~15
dscp	DSCP priority	Range0~63
fragments	Presentation of a piecewise message	The definition rules are valid only for non - chip slices
time-range <i>name</i>	custom Time and name	Except? 1-32 characters outside

97.6 show access-list config

Command function :

show access-list config *num* | **all** command view configuration access control list information

Command format :

show access-list config 1**Parameter Declaration**

Parameter	Parameter Declaration	Values
<i>num</i>	Access control list number	1-2999

97.7 show access-list config statistic**Command function :**

show access-list config statistic Command to view the number of access control lists in the configuration

Command format :

show access-list config statistic

Parameter Declaration

/

97.8 show access-list runtime statistic**Command function :**

show access-list runtime statistic Command to see the number of activated ACL statistics

Command format :

show access-list runtime statistic

Parameter Declaration

/

97.9 show access-list runtime**Command function :**

show access-list runtime *num* |all Command to view the run access control list information

Command format :

show access-list runtime 1

Parameter Declaration

Parameter	Parameter Declaration	Values
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<i>num</i>	Access control list number	1-2999

97.10 time-range

Command function :

time-range *name* command creates time and enters time configuration mode.

Command format :

time-range *time1*

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>name</i>	The name of the interval (the longest is 32 bytes, must start with [a-z, A-Z], not case sensitive).	1-32character

97.11 absolute

Command function :

(no)absolute [**start** *start-time start-day* [**end** *end-time end-day*]] Command configuration (delete) absolute time

Command format :

absolute **start** 1:1:1 2017/1/1 **end** 1:1:1 2017/12/1
no absolute **start** 1:1:1 2017/1/1 **end** 2:2:2 2017/12/1

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>start-time</i>	Start time	00:00:00-23:59:59
<i>start-day</i>	Start Year/Month/Date	2000/01/01-2099/12/31

<i>end-time</i>	End time	00:00:00-23:59:59
<i>end-day</i>	End Year/Month/Date	2000/01/01-2099/12/31

97.12 periodic

Command function :

(no)periodic *week start-time to end-time* command configuration (delete) relative time period

Command format :

periodic **daily** 1:1:1 to 2:2:2
no periodic **daily** 1:1:1 to 2:2:2

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>week</i>	A special week	Daily, fri, mon, sat, sun, thu, tue, wed, weekdays, weekend
<i>start-time</i>	Start time	00:00:00-23:59:59
<i>end-time</i>	End time	00:00:00-23:59:59

97.13 no time-range

Command function :

no time-range [**all** | **name** *name*] Command deleting time

Command format :

no time-range **all**

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>name</i>	The name of the interval (the longest is 32 bytes, must start with [a-z, A-Z], not case sensitive).	1-32character

97.14 show time-range

Command function :

show time-range [name *name* |all |statistic] Command to view the run access control list information

Command format :

show time-range all

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>name</i>	The name of the time period (the longest is 32 bytes, must start with [a-z, A-Z], not case sensitive).	1-32

97.15 access-group

Command function :

access-group [ip-acl *ip-num*] [mac-acl *mac-num*] [hybrid-acl *hyb-num*] [subitem *sub-num*] [in | out] Command activation access control list

Command format :

access-group mac-acl 1000 subitem 1 in

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999

<i>sub-num</i>	The subitem number of the three, two, and mixed ACL list	0-127
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97.16 no access-group

Command function :

no access-group [**all** | **ip-acl** *ip-num*] [**mac-acl** *mac-num*] [**hybrid-acl** *hyb-num*] [**subitem** *sub-num*] [**in** | **out**] Command to activate the access control list

Command format :

no access-group mac-acl 1000 subitem 1 in

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>sub-num</i>	The subitem number of the three, two, and mixed ACL list	0-127

98.QOS Configuration Command

98.1 rate-limit

Command function :

rate-limit [input | output] [ip-acl *ip-num*] | [mac-acl *mac-num*] | [hybrid-acl *hyb-num*] [subitem *sub-num*] *target-rate* [exceed-action [drop | set-dscp-value *dscp-value*]] Command flow speed limit in global mode

rate-limit [input | output] [ip-acl *ip-num*] | [mac-acl *mac-num*] | [hybrid-acl *hyb-num*] [subitem *sub-num*] **two-rate-policer** **cir** *cir-value* **cbs** *cbs-value* **pir** *pir-value* **pbs** *pbs-value*

green {copy-to-cpu | drop | set_dscp_value *dscp_value* | transmit } **yellow** {copy-to-cpu | drop | set_dscp_value *dscp_value* | transmit } **red** {copy-to-cpu | drop | set_dscp_value *dscp_value* | transmit } Command configures dual speed three color application strategy in global mode (handling actions on three different color messages).

Command format :

rate-limit input hybrid-acl 2000 subitem 1 64 exceed-action set-dscp-value af1

rate-limit input ip-acl 1 two-rate-policer cir 64 cbs 4 pir 64 pbs 4 green copy-to-cpu yellow copy-to-cpu red drop

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>sub-num</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>target-rate</i>	The maximum	64-10240000

	rate (1000 bit per second) should be 64 times the integer.	
<i>dscp-value</i>	Dscp value	0-63
<i>cir-value</i>	The Convention rate (bit per second) should be an integer multiple of 64.	64-10240000
<i>cbs-value</i>	For a burst size (KByte), the size of the target should be 4 times the power of 2.	4-16384
<i>pir-value</i>	Peak rate	64-10240000
<i>pbs-value</i>	Peak burst size	4-16384

98.2 two-rate-policer mark-color

Command function :

two-rate-policer mark-color *dscp-value* [**green** | **red** | **yellow**] Command dual speed three color properties in global mode
no two-rate-policer mark-color *dscp-value* Command to delete double speed trichromatic properties in global mode

Command format :

two-rate-policer mark-color 1 **green**
no two-rate-policer mark-color 2

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>dscp-value</i>	Dscp value	0-63

98.3 two-rate-policer mode

Command function :

two-rate-policer mode [**color-aware** | **color-blind**] Command configuration double speed trichromatic markup mode
no two-rate-policer mode Command delete double speed trichromatic markup mode

Command format :

two-rate-policer mode color-aware
no two-rate-policer mode

Parameter Declaration

/

98.4 traffic-redirect

Command function :

traffic-redirect [**ip-acl** *ip-num*] | [**mac-acl** *mac-num*] | [**hybrid-acl** *hyb-num*]
 [**subitem** *sub-num*] [**interface** [eth-trunk *trunk-id* | ethernet *port-id*] | **cpu**]

Command configuration message redirection

no traffic-redirect [**ip-acl** *ip-num*] | [**mac-acl** *mac-num*] | [**hybrid-acl** *hyb-num*]
 [**subitem** *sub-num*] Command delete message redirection

Command format :

traffic-redirect ip-acl 1 interface ethernet 0/0/1
no traffic-redirect ip-acl 1 subitem 2 mac-acl 1000 subitem 1

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>sub-num</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>trunk-id</i>	Link convergence end number	1-31
<i>port-id</i>	Port number	According to the physical port of the switch, for example, the 28 switch: 0/0/1-0/1/4

98.5 traffic-copy-to-cpu

Command function :

traffic-copy-to-cpu [**ip-acl** *ip-num*] | [**mac-acl** *mac-num*] | [**hybrid-acl** *hyb-num*] *string* [**subitem** *sub-num*] The command configuration message is copied to CPU
no traffic-copy-to-cpu [**ip-acl** *ip-num*] | [**mac-acl** *mac-num*] | [**hybrid-acl** *hyb-num*] *string* [**subitem** *sub-num*] Command delete message copy to CPU

Command format :

traffic-copy-to-cpu ip-acl 1
no traffic-copy-to-cpu ip-acl 1

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>string</i>	Standard or extended access control list name	Except? Extras 1-32 characters
<i>sub-num</i>	The subitem number of the three, two, and mixed ACL list	0-127

98.6 traffic-priority

Command function :

traffic-priority { [**ip-acl** *ip-num* [**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*] } } [**dscp** *dscp-value*] [**cos** *cos-value* | **precedence** *pre-value*] [**local-precedence** *local-value*] } Command configuration priority markup
no traffic-priority { [**ip-acl**

ip-num[**subitem subitem**] | { [**mac-acl mac-num**] [**subitem subitem**] } | { [**hybrid-acl hyb-num**] [**subitem subitem**] } Command delete priority markup

Command format :

traffic-priority mac-acl 1000 local-precedence 2 precedence 2
no traffic-priority ip-acl 1 subitem 21

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>dscp-value</i>	Matching a specific DSCP value	0-63
<i>cos-value</i>	A message matching a 802.1p priority to a specific value	0-7
<i>pre-value</i>	A message with a specific IP priority	0-7
<i>local-value</i>	Setting up local priority	0-7

98.7 traffic-statistic

Command function :

traffic-statistic { [**ip-acl ip-num**[**subitem subitem**]] | { [**mac-acl mac-num**] [**subitem subitem**] } | { [**hybrid-acl hyb-num**] [**subitem subitem**] } } [**in** | **out**] Command configuration traffic statistics
no traffic-statistic { [**ip-acl ip-num**[**subitem subitem**]] | { [**mac-acl mac-num**] [**subitem subitem**] } | { [**hybrid-acl hyb-num**] [**subitem subitem**] } } [**in** | **out**] Command delete traffic statistics

Command format :

traffic-statistic hybrid-acl 2000 in
no traffic-statistic hybrid-acl 2000 in

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127

98.8 clear traffic-statistic**Command function :**

clear traffic-statistic {all | [**ip-acl** *ip-num* [**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*] } } [**in** | **out**]Command traffic statistics zero

Command format :

clear traffic-statistic hybrid-acl 2000 in

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list	2000-2999

	number	
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127

98.9 mirrored-to

Command function :

mirrored-to { [**ip-acl** *ip-num* [**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] } [**interface** *port-id*]
 Command configuration flow image **no mirrored-to** { [**ip-acl** *ip-num* [**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] } Command delete stream mirror

Command format :

mirrored-to ip-acl 1 subitem 2 interface ethernet 0/0/1
no mirrored-to ip-acl 1 subitem 2

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>port-id</i>	Port number	According to the physical port of the switch, for example, the 28 switch: 0/0/1-0/1/4

98.10 traffic-rewrite-vlan

Command function :

traffic-rewrite-vlan { [**ip-acl** *ip-num*[**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] }
vlan-id Command configuration message VLAN rewrite
no traffic-rewrite-vlan { [**ip-acl** *ip-num*[**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] } Command delete message VLAN rewrite

Command format :

traffic-rewrite-vlan ip-acl 1 subitem 2 2
no traffic-rewrite-vlan ip-acl 1 subitem 2

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list number	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>vlan-id</i>	Rewrite VLAN ID	1-4094

98.11 traffic-insert-vlan

Command function :

traffic-insert-vlan { [**ip-acl** *ip-num*[**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] }
vlan-id Command configuration message VLAN insert
no traffic-insert-vlan { [**ip-acl** *ip-num*[**subitem** *subitem*]] | { [**mac-acl** *mac-num*] [**subitem** *subitem*]] } | { [**hybrid-acl** *hyb-num*] [**subitem** *subitem*]] } Command delete message VLAN insert

Command format :

traffic-insert-vlan ip-acl 1 subitem 2 2
no traffic-insert-vlan ip-acl 1 subitem 2

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>ip-num</i>	Three layer access control list number	1-999
<i>mac-num</i>	Two layer access control list numbe	1000-1999
<i>hyb-num</i>	Mixed access control list number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127
<i>vlan-id</i>	Insert VLAN ID	1-4094

98.12 show two-rate-policer

Command function :

show two-rate-policer
 Command to view double speed three color configuration information

Command format :

show two-rate-policer

Parameter Declaration

/

98.13 show qos-info all

Command function :

show qos-info all Command displays all QoS parameter settings

Command format :

show qos-info all

Parameter Declaration

/

98.14 show qos-info statistic

Command function :

show qos-info statistic The command displays all QoS statistics

Command format :

show qos-info statistic

Parameter Declaration

/

98.15 show qos-info traffic-copy-to-cpu

Command function :

show qos-info traffic-copy-to-cpu The command shows the parameter settings of the message copied to the CPU

Command format :

show qos-info traffic-copy-to-cpu

Parameter Declaration

/

98.16 show qos-info mirrored-to

Command function :

show qos-info mirrored-to Parameter setting of a command display stream image

Command format :

show qos-info mirrored-to

Parameter Declaration

/

98.17 show qos-info traffic-priority

Command function :

show qos-info traffic-priority Command display priority tag parameter settings

Command format :

show qos-info traffic-priority

Parameter Declaration

/

98.18 show qos-info traffic-redirect

Command function :

show qos-info traffic-redirect Command display parameter settings for redirection

Command format :

`show qos-info traffic-redirect`

Parameter Declaration

/

98.19 show qos-info traffic-statistic

Command function :

`show qos-info traffic-statistic` Command display traffic statistics

Command format :

`show qos-info traffic-statistic`

Parameter Declaration

/

98.20 show qos-info traffic-insert-vlan

Command function :

`show qos-info traffic-insert-vlan` Command display VLAN insert parameter settings

Command format :

`show qos-info traffic-insert-vlan`

Parameter Declaration

/

99.POE Power supply configuration command

99.1 poe

Command function :

`(no) poe`

Command to configure the POE switch in port mode

Command format :

`poe`

`no poe`

Parameter description :

None

99.2 poe max-power

Command function :

`(no) poe max-power value`

Command to configure (restore) the maximum output power of the switch in global mode

Command format :

poe max-power 20
no poe max-power

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Power of Switch(Unit:W)	1-400

99.3 show l2protocol-tunnel drop-threshold

Command function :

Check each protocol speed limit

Command format :

show l2protocol-tunnel drop-threshold

Parameter description :

None

99.4 poe max-power

Command function :

(no) poe max-power *value*

Command to configure (restore) maximum output power in port mode

Command format :

poe max-power 20
no poe max-power

Parameter description :

Parameter	Parameter description :	Value range
<i>value</i>	Port Power (Unit: W)	1-32

99.5 poe standard

Command function :

poe standard [ieee802.3af | ieee802.3at]

Command to configure usage standards in port mode

Command format :

poe standard ieee802.3af

Parameter description :

None

99.6 poe priority

Command function :

poe priority [low | high | critical]

Command to configure priority in port mode

Command format :

poe priority low

Parameter description :

Parameter	Parameter description :	Value range
low	Minimum port priority (default)	None
high	Intermediate port priorit	None
critical	Maximum port priority	None

99.7 show poe

Command function :

show poe [interface [ethernet *port-id*]]

Command to show port or device POE information

Command format :

show poe interface ethernet 0/0/1

Parameter description :

Parameter	Parameter description :	Value range
<i>port-id</i>	Port id	Depend on the physical port of the switch, for example, 28 port switches: 0 / 0 / 1 - 0 / 1 / 4

100 I2protocol-tunnel Configuration command

100.1 I2protocol-tunnel

Command function :

Configuration protocol transmission under port

Command format :

I2protocol-tunnel [cdp | lacp | pagp | stp | udld | vtp]

Parameter description :

Parameter	Parameter description :	Value range
cdp	cpd Protocol message	
lacp	Lacp Protocol message	
pagp	Pag Protocol message	
stp	Stp Protocol message	
udld	Udld Protocol message	
vtp	Vtp Protocol message	

100.2 I2protocol-tunnel drop-threshold

Command function :

Limit Protocol transmission rate globally

Command format :

I2protocol-tunnel [cdp | lacp | pagp | stp | udld | vtp] <value>

Parameter description :

Parameter	Parameter description :	Value range
cdp	Cpd Protocol message	
lacp	Lacp Protocol message	
pagp	Pagp Protocol message	
stp	Stp Protocol message	
udld	Udld Protocol message	
vtp	Vtp Protocol message	
value	Limit value	1-200 pps

100.3 show I2protocol-tunne interface

Command function :

View port run protocol status

Command format :

show l2protocol-tunne interface [ethernet [*list*]]

Parameter description :

Parameter	Parameter description :	Value range
list	Port list	