

Console Reference Guide

Models 560559_v3, 561167_v3, 561198_v3, 561341_v3, 561426_v3, 508834



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Contents

1. Access control list configuration command	39
1.1. access-list.....	39
1.2. access-list ip-acl	39
1.3. no access-list.....	41
1.4. access-list mac-acl	41
1.5. access-list hybrid-acl.....	42
1.6. show access-list config	45
1.7. show access-list config statistic	45
1.8. show access-list runtime statistic	45
1.9. show access-list runtime	45
1.10. time-range	46
1.11. absolute	46
1.12. periodic.....	47
1.13. no time-range	47
1.14. show time-range.....	48
1.15. access-group.....	48
1.16. no access-group	49
2. QOS Configuration Command	50
2.1. rate-limit.....	50
2.2. two-rate-policer.....	51
2.3. traffic-redirect	51
2.4. traffic-copy-to-cpu.....	52
2.5. traffic-priority	53
2.6. traffic-statistic.....	54
2.7. clear traffic-statistic	54
2.8. mirrored-to	55
2.9. traffic-rewrite-vlan	56
2.10. traffic-insert-vlan	56
2.11. show two-rate-policer	57

2.12. show qos-info statistic.....	57
2.13. show qos-info traffic-copy-to-cpu	57
2.14. show qos-info all.....	58
2.15. show qos-info mirrored-to	58
2.16. show qos-info traffic-priority	58
2.17. show qos-info traffic-redirect.....	58
2.18. show qos-info traffic-statistic.....	59
2.19. show qos-info traffic-insert-vlan	59
3. COS Configuration Command.....	59
3.1. queue-scheduler.....	59
3.2. queue-scheduler mode	59
3.3. no queue-scheduler mode	60
3.4. queue-scheduler cos-map	60
3.5. queue-scheduler dscp-map	61
3.6. queue-scheduler dscp-map	61
3.7. show queue-scheduler	61
3.8. show queue-scheduler cos-map.....	62
3.9. show queue-scheduler dscp-map	62
4. ARP Learning configuration command	63
4.1. arp <ip> <mac>	63
4.2. arp <ip> <mac> vlan <vlan-id>	63
4.3. arp aging-time.....	63
4.4. arp peer	64
4.5. arp bind dynamic.....	64
4.6. no arp.....	64
4.7. show arp	65
4.8. arp overwrite	65
4.9. gratuitous-arp.....	65
4.10. arp reply-repeat.....	66
4.11. arp reply-repeat [times]	66

4.12. show arp aging-time	66
4.13. show arp overwrite	66
4.14. show arp peer.....	67
4.15. show arp reply-repeat	67
5. ARP Proxy configuration command	67
5.1. arp-proxy	67
5.2. arp-proxy broadcast.....	67
5.3. show arp-proxy	68
6. IPv6ND Configuration command	68
6.1. ipv6 neighbor <ipv6> <mac>	68
6.2. ipv6 neighbor <ipv6> <mac> <vlan-id>	68
6.3. ipv6 neighbors max-learning-num	69
6.4. show ipv6 neighbors max-learning-num.....	69
6.5. ipv6 nd reachable-time	69
6.6. ipv6 nd dad attempts	70
6.7. ipv6 nd ns retrans-time.....	70
6.8. ipv6 nd ra interval.....	70
6.9. ipv6 nd ra halt	71
6.10. ipv6 nd ra hop-limit	71
6.11. ipv6 nd ra prefix.....	71
6.12. ipv6 nd ra router-lifetime	72
6.13. show ipv6 nd dad attempts.....	72
6.14. show ipv6 nd reachable-time	72
6.15. show ipv6 nd ns retrans-time	72
6.16. show ipv6 nd ra halt.....	73
6.17. show ipv6 nd ra hop-limit.....	73
6.18. show ipv6 nd ra interval	73
6.19. show ipv6 nd ra prefix	73
6.20. show ipv6 nd ra router-lifetime.....	73
7. Anti ARP spoofing configuration command	74

7.1. arp anti-spoofing	74
7.2. arp anti-spoofing action	74
7.3. arp anti-spoofing bind	74
7.4. arp anti-spoofing gateway-disguiser	75
7.5. arp anti-spoofing source-mac-check	75
7.6. arp anti-attack trust.....	75
7.7. show arp anti-spoofing.....	76
7.8. show arp anti-spoofing bind.....	76
7.9. show arp anti-attack.....	76
8. Anti ARP flood configuration command.....	76
8.1. arp anti-flood.....	76
8.2. arp anti-flood action.....	77
8.3. arp anti-flood rate-limit.....	77
8.4. arp anti-flood recover-time.....	77
8.5. arp anti-flood recover.....	78
8.6. arp anti-flood bind blackhole	78
8.7. show arp anti-flood	79
8.8. show arp anti-flood rate-limit	79
9. Anti Dos attack configuration command.....	79
9.1. anti-dos ip ttl	79
9.2. anti-dos ip fragment.....	79
9.3. anti-dos packets class	80
9.4. show anti-dos	81
10. Shutdown-Control Configuration Command	82
10.1. shutdown-control.....	82
10.2. shutdown-control-recover mode	82
10.3. shutdown-control-recover automatic-open-time	83
10.4. show shutdown-control interface	83
11. BPDU-Car Configuration command	83
11.1. port-car320.....	83

11.2. port-car-rate	84
11.3. show port-car	84
12. CPU-Car Configuration Command.....	84
12.1. cpu-car	84
12.2. show cpu-car	85
12.3. show cpu-statistics	85
12.4. clear cpu-statistics.....	85
12.5. show cpu-classification.....	86
12.6. clear cpu-classification	86
12.7. show cpu-utilization	86
13. Discard-BPDU Configuration Command.....	87
13.1. discard-bpdu.....	87
13.2. show discard-bpdu	87
14. Anti DHCP configuration command	87
14.1. dhcp anti-attack.....	87
14.2. dhcp anti-attack action.....	87
14.3. dhcp anti-attack bind blackhole	88
14.4. dhcp anti-attack threshold	88
14.5. dhcp anti-attack recover-time.....	89
14.6. dhcp anti-attack recover	89
14.7. dhcp anti-attack trust	89
14.8. show dhcp anti-attack	90
14.9. show dhcp anti-attack interface.....	90
15. Two level password authentication configuration command.....	90
15.1. enable password 0.....	90
15.2. enable password 7.....	91
15.3. enable password level	91
16. DHCP-Snooping Configuration command	92
16.1. dhcp-snooping	92
16.2. dhcp-snooping trust	92

16.3. dhcp-snooping fast-remove	92
16.4. dhcp-snooping max-learn-num	92
16.5. show dhcp-snooping interface	93
16.6. show dhcp-snooping vlan.....	93
16.7. show dhcp-snooping clients.....	93
17. DHCP-Server Configuration Command.....	94
17.1. dhcp-server.....	94
17.2. dhcp-server ip-pool	94
17.3. gateway	95
17.4. section	95
17.5. forbidden-ip.....	95
17.6. domain-name	96
17.7. lease.....	96
17.8. option	96
17.9. unbind-client	97
17.10. router.....	97
17.11. dns-list	98
17.12. nbns-list	98
17.13. dhcp-client bind.....	98
17.14. dhcp-client unbind-assign	99
17.15. dhcp-server traps	99
17.16. show dhcp-server	99
17.17. show dhcp-server interface.....	100
17.18. show dhcp-server ip-pool.....	100
17.19. show dhcp-server clients.....	100
17.20. show dhcp-client bind	101
18. DHCP-Relay Configuration Command	101
18.1. dhcp-relay.....	101
18.2. dhcp-relay hide server-ip.....	102
18.3. dhcp-relay max-hops	102

18.4. dhcp-relay source-ip	102
18.5. show dhcp-relay	103
19. DHCP Option82 Configuration Command	103
19.1. dhcp-option82	103
19.2. dhcp-option82 device-id	103
19.3. dhcp-option82 format	104
19.4. dhcp-option82 format verbose	104
19.5. dhcp-option82 information format	104
19.6. dhcp-option82 strategy	104
19.7. dhcp-option82 circuit-id user-defined	105
19.8. dhcp-option82 remote-id user-defined	105
19.9. show dhcp-option82.....	106
20. DHCPv6-Snooping Configuration Command	106
20.1. dhcpcv6-snooping	106
20.2. dhcpcv6-snooping trust	107
20.3. dhcpcv6-snooping port-down-action fast-remove	107
20.4. dhcpcv6-snooping max-clients	107
20.5. show dhcpcv6-snooping clients.....	108
20.6. show dhcpcv6-snooping interface.....	108
20.7. show dhcpcv6-snooping vlan.....	108
20.8. clear dhcpcv6-snooping.....	108
21. DHCPv6 Option18 configuration command	110
21.1. dhcpcv6-snooping information option 18	110
21.2. dhcpcv6-snooping information interface-id	110
21.3. show dhcpcv6-snooping information	111
22. DHCPv6 Option37 Configuration command.....	111
22.1. dhcpcv6-snooping information option 37	111
22.2. dhcpcv6-snooping information remote-id.....	111
22.3. show dhcpcv6-snooping information	112
23. File download configuration command	112

23.1. load application xmodem	112
23.2. load application tftp	112
23.3. load application ftp.....	113
23.4. load whole-bootrom xmodem	113
23.5. load whole-bootrom tftp.....	114
23.6. load whole-bootrom ftp	114
23.7. load configuration xmodem	115
23.8. load configuration tftp	115
23.9. load configuration ftp.....	115
23.10. load keyfile private tftp	116
23.11. load keyfile private ftp.....	116
23.12. load keyfile public tftp.....	117
23.13. load keyfile public ftp	117
24. file upload configuration command	118
24.1. upload application ftp	118
24.2. upload application tftp	118
24.3. upload logging ftp.....	119
24.4. upload logging tftp	119
24.5. copy running-config startup-config	120
24.6. upload configuration ftp.....	120
24.7. upload configuration tftp	120
24.8. upload automatically configuration ftp.....	121
24.9. upload automatically configuration tftp	121
24.10. upload keyfile private tftp	122
24.11. upload keyfile private ftp	122
24.12. upload keyfile public tftp.....	123
24.13. upload keyfile public ftp	123
25. configuration management command.....	124
25.1. show running-config	124
25.2. show startup-config.....	124

25.3. copy startup-config running-config	125
25.4. clear startup-config	125
26. Active and standby file system configuration command	126
26.1. load secondary application tftp.....	126
26.2. load secondary application ftp	126
26.3. startup secondary application	127
27. Port mirror configuration command	127
27.1. mirror source	127
27.2. mirror monitor ethernet	128
27.3. no mirror.....	128
27.4. show mirror	128
28. Remote mirror configuration command	129
28.1. mirror source	129
28.2. mirror monitor ethernet	129
28.3. remote_mirror rspan local vlan	129
28.4. no remote_mirror rspan local	130
28.5. remote_mirror rspan middle vlan.....	130
28.6. no remote_mirror rspan middle vlan.....	130
28.7. remote_mirror rspan target vlan	131
28.8. no remote_mirror rspan target vlan.....	131
28.9. remote_mirror rspan parse vlan	131
28.10. no remote_mirror rspan parse vlan.....	132
28.11. show remote_mirror	132
29. Configure flow mirror	132
29.1. mirrored-to	132
29.2. no mirrored-to.....	133
29.3. show qos-info mirrored-to.....	133
30. RMON configuration command.....	133
30.1. rmon statistics	133
30.2. no rmon statistics.....	134

30.3. rmon history	134
30.4. no rmon history	134
30.5. show rmon statistics interface.....	135
30.6. show rmon history interface	135
30.7. rmon event.....	135
30.8. no rmon event	136
30.9. show rmon event.....	136
30.10. rmon alarm.....	136
30.11. no rmon alarm	137
30.12. show rmon alarm	137
31. Bandwidth-Control configuration command	138
31.1. bandwidth	138
31.2. show bandwidth	138
32. MAC-address-management-configuration command	139
32.1. mac-address-table age-time.....	139
32.2. mac-address-table	139
32.3. mac-address-table blackhole	140
32.4. mac-address-table learning.....	140
32.5. mac-address-table max-mac-count.....	141
32.6. no mac-address-table max-mac-count.....	141
32.7. show mac-address max-mac-count.....	141
32.8. show mac-address-table age-time	142
32.9. show mac-address-table	142
32.10. show mac-address learning.....	143
32.11. show mac-address cpu	143
33. DLF-Control configuration command	143
33.1. unknown-discard unicast	143
33.2. unknown-discard multicast vlan.....	144
33.3. unknown-discard multicast	144
33.4. show unknown-discard	144

34. Local-Switch configuration command	145
34.1. local-switch.....	145
34.2. show local-switch	145
35. SLF-Control configuration command.....	146
35.1. unknown-discard src-mac	146
35.2. show unknown-discard src-mac.....	146
36. Flow-Control configuration command	147
36.1. flow-control	147
36.2. show flow-control interface	147
37. Error packet statistics	147
37.1. show statistics interface ethernet.....	147
38. IPv4 IF-Vlan Interface configuration command.....	148
38.1. interface vlan-interface.....	148
38.2. ip address ipv4 address.....	148
38.3. Ip address	149
38.4. ip addres range	149
38.5. ip icmp host-unreachable send.....	150
38.6. ip icmp mask-request receive	150
38.7. description.....	150
38.8. show ip interface	151
39. IPv4 SuperVlanInterface configuration command	151
39.1. interface supervlan-interface.....	151
39.2. subvlan	151
39.3. ip address.....	152
39.4. Ip address	152
39.5. ip addres range	153
39.6. ip icmp host-unreachable send.....	153
39.7. ip icmp mask-request receive	153
39.8. description.....	154
39.9. show ip interface	154

40. IPv6 IF-VlanInterface configuration command	154
40.1. ipv6 address	154
40.2. ipv6 neighbors max-learning-num.....	155
40.3. ipv6 nd ns retrans-timer.....	155
40.4. ipv6 nd dad attempts value	156
40.5. ipv6 nd reachable-time.....	156
40.6. ipv6 pathmtu value	156
40.7. ipv6 nd ra halt.....	157
40.8. ipv6 nd ra hop-limit	157
40.9. ipv6 nd ra interval	157
40.10. ipv6 nd ra prefix	157
40.11. ipv6 nd ra router-lifetime.....	158
40.12. show ipv6 interface.....	158
40.13. show ipv6 neighbors	158
40.14. show ipv6 nd dad attempts	159
40.15. show ipv6 nd ns retrans-time.....	159
40.16. show ipv6 nd reachable-time	159
40.17. show ipv6 route.....	159
41. IPv6 SuperVlanInterface configuration command	160
41.1. ipv6 address	160
41.2. ipv6 neighbors max-learning-num.....	160
41.3. ipv6 nd ns retrans-timer	161
41.4. ipv6 nd dad attempts value	161
41.5. ipv6 nd reachable-time.....	161
41.6. ipv6 pathmtu value	162
41.7. ipv6 nd ra halt.....	162
41.8. ipv6 nd ra hop-limit	162
41.9. ipv6 nd ra interval	162
41.10. ipv6 nd ra prefix	163
41.11. ipv6 nd ra router-lifetime.....	163

41.12. show ipv6 interface.....	164
41.13. show ipv6 neighbors	164
41.14. show ipv6 nd dad attempts	164
41.15. show ipv6 nd ns retrans-time.....	165
41.16. show ipv6 nd reachable-time	165
41.17. show ipv6 route.....	165
42. GMRP Configuration command.....	165
42.1. gmrp	165
42.2. garp permit multicast mac-address.....	166
42.3. show gmrp	166
42.4. show gmrp interface	166
42.5. show garp permit multicast.....	167
42.6. show multicast.....	167
43. GMP-Snooping Configuration command	167
43.1. igmp-snooping	167
43.2. igmp-snooping host-aging-time	168
43.3. no igmp-snooping host-aging-time	168
43.4. igmp-snooping max-response-time.....	168
43.5. no igmp-snooping max-response-time	169
43.6. igmp-snooping fast-leave	169
43.7. no igmp-snooping fast-leave	169
43.8. igmp-snooping group-limit.....	169
43.9. no igmp-snooping group-limit.....	170
43.10. igmp-snooping overflow-replace	170
43.11. igmp-snooping enable-vlan	170
43.12. igmp-snooping [permit deny]	171
43.13. igmp-snooping querier	171
43.14. igmp-snooping robust-count.....	171
43.15. igmp-snooping last-member-query-interval.....	172
43.16. igmp-snooping version	172

43.17. igmp-snooping querier-vlan	172
43.18. igmp-snooping query-interval	173
43.19. igmp-snooping query-source.....	173
43.20. igmp-snooping router-port forward.....	173
43.21. igmp-snooping router-aging-time	174
43.22. igmp-snooping router-port vlan.....	174
43.23. igmp-snooping multicast vlan	174
43.24. igmp-snooping proxy.....	175
43.25. igmp-snooping proxy-source.....	175
43.26. igmp-snooping query-proxy	175
43.27. igmp-snooping source-learning.....	176
43.28. igmp-snooping static-group	176
43.29. igmp-snooping static-group proxy	177
43.30. igmp-snooping drop	177
43.31. igmp-snooping preview.....	178
43.32. igmp-snooping preview group-ip	178
43.33. igmp-snooping preview times	178
43.34. igmp-snooping profile	179
43.35. profile limit	179
43.36. ip range	179
43.37. mac range	180
43.38. description	180
43.39. igmp-snooping profile refer	181
43.40. show igmp-snooping	181
43.41. show igmp-snooping router-dynamic	182
43.42. show igmp-snooping router-static	182
43.43. show igmp-snooping preview	182
43.44. show igmp-snooping preview status.....	183
43.45. show igmp-snooping profile.....	183
43.46. show multicast	183

44. Static multicast configuration command	184
44.1. multicast	184
44.2. multicast proxy	184
44.3. multicast proxy-interval	185
44.4. show multicast.....	185
45. MLD-Snooping Configuration command.....	186
45.1. mld-snooping.....	186
45.2. mld-snooping host-aging-time time	186
45.3. mld-snooping max-response-time	186
45.4. mld-snooping fast-leave	187
45.5. mld-snooping group-limit.....	187
45.6. mld-snooping [permit deny]	188
45.7. mld-snooping.....	188
45.8. mld-snooping querier	188
45.9. mld-snooping query-interval	189
45.10. mld-snooping query-max-respond.....	189
45.11. mld-snooping router-port forward.....	190
45.12. mld-snooping router-port-age	190
45.13. mld-snooping router-port vlan.....	190
45.14. mld-snooping multicast vlan	191
45.15. show mld-snooping	191
45.16. show mld-snooping router-dynamic	192
45.17. show mld-snooping router-static	192
45.18. show multicast mld-snooping	192
46. l2protocol-tunnel Configuration command	194
46.1. l2protocol-tunnel.....	194
46.2. l2protocol-tunnel user-protocol.....	194
46.3. l2protocol-tunnel drop-threshold	195
46.4. show l2protocol-tunne interface.....	196
46.5. show l2protocol-tunnel drop-threshold.....	196

46.6. show l2protocol-tunnel tunnel-mac.....	196
47. LLDP Configuration Commands	197
47.1. lldp	197
47.2. lldp rx tx rtx	197
47.3. lldp hello-time	198
47.4. lldp hold-times.....	198
47.5. lldp trap	198
47.6. lldp management-address.....	199
47.7. show lldp	199
48. UDLD Configuration Command	200
48.1. udld	200
48.2. udld error-down	200
48.3. udld message-interval	201
48.4. udld reset.....	201
48.5. udld port shutdown.....	202
48.6. udld unidirectional-shutdown	202
48.7. udld work-mode	203
48.8. show udld	203
49. Managing IP restricted configuration commands	204
49.1. login-access-list	204
49.2. login-access-list privilege-limit	204
49.3. show login-access-list	205
50. Managing timeout configuration command	205
50.1. timeout	205
51. SSH configuration command	206
51.1. ssh.....	206
51.2. ssh limit.....	206
51.3. ssh port.....	206
51.4. stop vty	207
51.5. crypto key zeroize rsa	207

51.6. crypto key refresh.....	207
51.7. crypto key generate rsa.....	208
51.8. load keyfile	208
51.9. upload keyfile	208
51.10. show keyfile	209
52. Telnet-Client Configuration command	210
52.1. telnet <ip>	210
53. Telnet-Server/Telnetv6-ServerConfiguration Command	211
53.1. telnet enable	211
53.2. telnet disable	211
53.3. telnet limit	211
53.4. telnet port	212
53.5. stop telnet client	212
53.6. show telnet client.....	212
53.7. show telnet.....	213
54. Web Management configuration command.....	213
54.1. http enable	213
54.2. http disable.....	213
54.3. http timeout	214
54.4. show http.....	214
55. SNMP Management configuration command.....	215
55.1. snmp-server enable.....	215
55.2. snmp-server disable	215
55.3. snmp-server contact.....	215
55.4. snmp-server location.....	216
55.5. snmp-server name.....	216
55.6. snmp-server max-packet-length	216
55.7. snmp-server trap-source	217
55.8. snmp-server encrypt	217
55.9. snmp-server view	218

55.10. snmp-server community encrypt	218
55.11. snmp-server community md5 encrypt-communityname	219
55.12. snmp-server community	219
55.13. snmp-server group	220
55.14. snmp-server user	220
55.15. snmp-server enable <traps informs>	222
55.16. snmp-server host	222
55.17. show snmp-server community	223
55.18. show snmp-server contact	223
55.19. show snmp-server engineid	224
55.20. show snmp-server group	224
55.21. show snmp-server host	224
55.22. show snmp-server location	225
55.23. show snmp-server max-packet-length	225
55.24. show snmp-server mib	225
55.25. show snmp-server name	225
55.26. show snmp-server notify	226
55.27. show snmp-server user	226
55.28. show snmp-server view	226
56. User management configuration command	227
56.1. username <>	227
56.2. username change-password	227
56.3. username failmax	227
56.4. username online-max	228
56.5. username silent-time	228
56.6. stop <>	229
56.7. show users	229
56.8. show username silent	229
56.9. show username	230
57. Auto-Reboot Configuration command	230

57.1. auto-reboot	230
58. System debug configuration command	231
58.1. ping	231
58.2. ping ipv6	231
58.3. tracert.....	232
58.4. tracert ipv6	232
59. System information configuration and display command	233
59.1. show version.....	233
59.2. show system	233
59.3. show memory.....	233
59.4. show clock	233
59.5. hostname.....	234
60. Bootrom Configuration command.....	234
60.1. Ctrl-B.....	234
61. Telnetv6-Client Configuration command.....	235
61.1. telnet6 <ipv6>.....	235
62. EFM Configuration command	235
62.1. efm	235
62.2. efm mode	236
62.3. efm pdu-timeout	236
62.4. efm link-timeout.....	236
62.5. efm remote-response-timeout.....	237
62.6. efm remote-failure.....	237
62.7. efm link-monitor.....	237
62.8. efm link-monitor errored-symbol-period window	238
62.9. efm link-monitor errored-symbol-period threshold.....	238
62.10. efm link-monitor errored-frame window.....	239
62.11. efm link-monitor errored-frame threshold	239
62.12. efm link-monitor errored-frame-period window	240
62.13. efm link-monitor errored-frame-period threshold	240

62.14. efm link-monitor errored-frame-seconds window	241
62.15. efm link-monitor errored-frame-seconds threshold	241
62.16. efm remote-loopback	241
62.17. efm remote-loopback ignore	242
62.18. efm remote-loopback process	242
62.19. efm remote-loopback start stop	242
62.20. efm variable-retrieval.....	243
62.21. show efm port.....	243
62.22. show efm remote-mib	243
62.23. show efm status interface.....	244
62.24. show efm summary	244
62.25. show efm discovery interface	244
62.26. show efm statistics interface.....	245
62.27. clear efm statistics interface.....	245
63. CFM Configuration command	245
63.1. cfm md.....	245
63.2. no cfm md	246
63.3. cfm md format none level	246
63.4. cfm md format	246
63.5. cfm ma.....	247
63.6. no cfm ma	247
63.7. cfm ma format	248
63.8. cfm mep <id> direction.....	248
63.9. cfm mep <id> state	249
63.10. cfm mep <id> priority.....	249
63.11. cfm rmepl	249
63.12. cfm mip.....	250
63.13. cfm cc interval	250
63.14. cfm mep	250
63.15. cfm loopback mep	251

63.16. cfm linktrace mep.....	251
63.17. cfm eth-slm mep	252
63.18. cfm eth-2dm mep.....	252
63.19. clear cfm cc	253
63.20. clear cfm cc database.....	253
63.21. show cfm md	254
63.22. show cfm ma	254
63.23. show cfm mp local.....	254
63.24. show cfm mp remote.....	254
63.25. show cfm cc.....	255
63.26. show cfm cc database	255
63.27. show cfm errors	255
64. POE Power supply configuration command.....	256
64.1. poe.....	256
64.2. poe max-power	256
64.3. poe max-power	256
64.4. poe standard	257
64.5. poe priority.....	257
64.6. poe status poll	257
64.7. poe traps.....	258
64.8. poe force power on	258
64.9. show poe	258
64.10. show poe auto-check	259
64.11. show poe power-on time-range.....	259
65. Statistics configuration command.....	260
65.1. show statistics interface ethernet.....	260
65.2. clear interface.....	260
65.3. clear cpu-statistics	261
65.4. clear cpu-classification	261
65.5. port-rate-statistics interval.....	261

65.6. show statistics interface brief	262
65.7. show statistics dynamic.....	262
65.8. show utilization	262
65.9. show interface	263
65.10. show cpu-utilization	263
65.11. show cpu-statistic.....	263
65.12. show cpu-classification.....	264
65.13. show statistics eth-trunk	264
66. Port loopback detection configuration command	265
66.1. loopback	265
66.2. loopback-detection action.....	265
66.3. loopback-detection interface	266
66.4. loopback-detection interval-time.....	266
66.5. loopback-detection recover-time.....	266
66.6. loopback-detection address-type.....	267
66.7. oopback-detection log.....	267
66.8. loopback-detection mode	267
66.9. loopback-detection trap	268
66.10. loopback-detection vlan	268
66.11. show loopback-detection	269
67. VCT detection configuration command	269
67.1. vct run.....	269
68. Port configuration commands.....	269
68.1. interface ethernet	269
68.2. duplex	270
68.3. speed	270
68.4. priority	271
68.5. shutdown.....	271
68.6. description.....	271
68.7. switchport.....	272

68.8. ingress filtering	272
68.9. switchport pvid.....	273
68.10. ingress acceptable-frame	273
68.11. switchport trunk allowed vlan.....	273
68.12. switchport hybrid untagged vlan.....	274
68.13. switchport hybrid tagged vlan.....	274
68.14. switchport link-type	275
68.15. show interface ethernet.....	275
68.16. show interface brief ethernet	276
68.17. show interface brief vlan-intf 1	276
68.18. show description ethernet	276
68.19. show ingress ethernet	277
69. DDM detection	278
69.1. show sfp.....	278
70. Flow control.....	278
70.1. flow-control	278
70.2. show flow-control.....	278
71. Storm-Control Configuration Command	279
71.1. storm-suppression.....	279
71.2. storm-suppression mode	280
71.3. no storm-suppression.....	280
71.4. show storm-suppression.....	280
72. isolate-port Configuration command	281
72.1. no isolate-port uplink	281
72.2. isolate-port uplink ethernet	281
72.3. show isolate-port.....	281
73. Port-securtiy Configuration command	282
73.1. port-security enable disable	282
73.2. port-security permit deny mac-address	282
73.3. show port-security mac-address	282

73.4. port-security permit deny ip-address	283
73.5. show port-security ip-address.....	283
73.6. port-security maximum.....	284
73.7. port-security permit mac-address sticky.....	284
73.8. port-security permit mac-address sticky.....	284
73.9. show port-security.....	285
73.10. no port-security all	285
73.11. show port-security active-address	285
73.12. no port-security active-address	285
73.13. port-security aging static.....	286
73.14. port-security aging time	286
73.15. port-security violation	286
73.16. port-security recovery	287
73.17. port-security recovery time.....	287
73.18. show port-security recovery	287
73.19. port-security violation log-interval	288
74. PPPoE+ Configuration command.....	288
74.1. pppoeplus.....	288
74.2. pppoeplus trust.....	288
74.3. show pppoeplus interface.....	289
74.4. pppoeplus strategy	289
74.5. pppoeplus drop	290
74.6. pppoeplus type	290
74.7. pppoeplus format	290
74.8. pppoeplus delimiter	291
74.9. pppoeplus circuit-id.....	291
75. IP-Source Configuration command	292
75.1. ip source.....	292
75.2. show ip source	292
75.3. ip source binding.....	292

75.4. show ip source binding	293
75.5. ip source vlan	293
75.6. show ip source vlan	293
75.7. ip source permit-igmp.....	294
75.8. show ip source permit-igmp	294
76. IPv6-Source Configuration Command	294
76.1. ipv6-source-guard.....	294
76.2. show ipv6-source-guard	295
76.3. ipv6-source-guard bind ip.....	295
76.4. show ipv6-source-guard bind.....	295
76.5. ipv6-source-guard vlan	296
76.6. show ipv6-source-guard vlan	296
77. 802.1X Configuration command.....	296
77.1. dot1x	296
77.2. dot1x eap-relay enable disable.....	297
77.3. dot1x port-method.....	297
77.4. dot1x port-control.....	297
77.5. dot1x re-authenticate	298
77.6. dot1x re-authentication	298
77.7. dot1x timeout re-authperiod	298
77.8. dot1x multicast-trigger	299
77.9. dot1x multicast-period	299
77.10. dot1x max-user-num	300
77.11. dot1x user cut	300
77.12. dot1x keepalive	300
77.13. dot1x keepalive period.....	301
77.14. dot1x timeout quiet-period	301
77.15. dot1x timeout server-timeout	301
77.16. dot1x timeout supp-timeout.....	302
77.17. dot1x portbased host-mode	302

77.18. dot1x guest-vlan	303
77.19. dot1x guest-acl	303
77.20. dot1x max-authfail	303
77.21. dot1x default-active-vlan	304
77.22. dot1x eapol-relay	304
77.23. dot1x eapol-relay uplink	305
77.24. dot1x max-req	305
77.25. dot1x max-reauth	305
77.26. dot1x critical-vlan	306
77.27. dot1x radius-acl-format	306
77.28. dot1x native-vlan-free	307
77.29. dot1x station-move	307
77.30. dot1x syslog	307
77.31. show dot1x multicast-trigger	308
77.32. show dot1x interface	308
77.33. show dot1x users	308
77.34. show dot1x eapol-relay	309
77.35. show dot1x keepalive	309
77.36. show dot1x config-vlan	310
77.37. show dot1x port-auth	310
77.38. show dot1x timeout	310
77.39. show dot1x	311
77.40. show dot1x guest-acl	311
77.41. show dot1x radius-acl	311
78. Radius Configuration command	312
78.1. radius host	312
78.2. primary-auth-ip	312
78.3. second-auth-ip	312
78.4. primary-acct-ip	313
78.5. second-acct-ip	313

78.6. auth-secret-key.....	314
78.7. acct-secret-key	314
78.8. nas-ipaddress.....	314
78.9. username-format	315
78.10. realtime-account	315
78.11. realtime-account interval	315
78.12. preemption-time	316
78.13. local-user username	316
78.14. default domain-name	316
78.15. domain.....	317
78.16. scheme	317
78.17. radius host binding	317
78.18. access-limit	318
78.19. state.....	318
78.20. accounting-on.....	318
78.21. h3c-cams.....	319
78.22. radius accounting	319
78.23. radius server-disconnect drop 1x.....	319
78.24. radius 8021p	319
78.25. radius password-encryption	320
78.26. radius vlan enable	320
78.27. radius vlan-format	320
78.28. radius mac-address-number	320
78.29. radius config-attribute.....	321
78.30. radius attribute.....	321
78.31. dnrate-value	321
78.32. uprate-value	322
78.33. radius bandwidth-limit	322
78.34. show radius attribute	322
78.35. show radius config-attribute	322

78.36. show radius host	323
78.37. show rate-attribute-value	323
78.38. show domain	323
79. Pvlan Configuration command	324
79.1. private-vlan primary	324
79.2. private-vlan isolated	324
79.3. private-vlan community	324
79.4. private-vlan association.....	324
79.5. switchport private-vlan	325
79.6. show private-vlan	325
79.7. show private-vlan interface.....	325
80. Muser Configuration command.....	326
80.1. muser local	326
80.2. muser radius.....	326
80.3. aaa	326
80.4. muser tacacs+	327
80.5. show muser	327
80.6. tacacs+ encrypt-key	327
80.7. tacacs+ authentication-type	327
80.8. tacacs+ primary server.....	328
80.9. tacacs+ secondary server	328
80.10. tacacs+ preemption-time	329
80.11. show tacacs+	329
81. Cpu-Alarm Command Manual.....	330
81.1. alarm cpu	330
81.2. alarm cpu threshold	330
81.3. show alarm cpu	330
82. Port-Alarm configuration manual.....	331
82.1. alarm all-packets.....	331
82.2. show alarm all-packets	331

83. Syslog configuration manual	332
83.1. logging	332
83.2. show logging.....	332
83.3. logging sequence-numbers	332
83.4. logging timestamps	333
83.5. logging monitor all monitor-num	333
83.6. logging monitor all monitor-num level-value none level-list.....	334
83.7. show logging filter monitor	334
83.8. no logging monitor all monitor-num filter.....	334
83.9. logging buffered	335
83.10. logging buffered level-value none level-list.....	335
83.11. show logging filter buffered	336
83.12. no logging buffered filter.....	336
83.13. show logging buffered.....	336
83.14. logging flash.....	337
83.15. logging flash level-value none level-list	337
83.16. show logging filter flash.....	337
83.17. no logging flash filter	338
83.18. logging flash interval	338
83.19. logging flash msg-number	338
83.20. show logging flash	339
83.21. logging ip-address.....	339
83.22. logging host all ip-address	340
83.23. logging host all ip-address level-value none level-list.....	340
83.24. no logging host all ip-address filter	341
83.25. logging facility.....	341
83.26. logging source.....	341
83.27. logging snmp-agent	342
83.28. logging snmp-agent level-value none level-list.....	342
83.29. show logging filter snmp-agent	343

83.30. no logging snmp-agent filter	343
83.31. debug.....	343
83.32. show debug	344
84. STP/RSTP configuration command.....	344
84.1. stp	344
84.2. stp mode.....	344
84.3. stp hello-time	345
84.4. stp forward-time	345
84.5. stp max-age	345
84.6. stp pathcost-standard	345
84.7. stp priority	346
84.8. stp root-guard action.....	346
84.9. stp tc-protection.....	346
84.10. stp tc-protection interval.....	347
84.11. stp tc-protection threshold	347
84.12. stp time-factor.....	347
84.13. stp new-root-trap	348
84.14. stp topo-change-trap.....	348
84.15. stp bpdu-guard	348
84.16. stp bpdu-filter.....	348
84.17. stp cost	349
84.18. stp portfast	349
84.19. stp link-type	349
84.20. stp loop-guard	350
84.21. stp mcheck.....	350
84.22. stp port-priority	350
84.23. stp root-guard.....	350
84.24. stp tcn-restricted	351
84.25. stp transmit-limit.....	351
84.26. show stp interface	351

85. MSTP configuration manual	353
85.1. stp	353
85.2. stp mode.....	353
85.3. mstp hello-time	353
85.4. mstp forward-time	353
85.5. mstp max-age	354
85.6. mstp max-hops	354
85.7. mstp instance <id> priority.....	354
85.8. mstp root-guard action	355
85.9. mstp tc-protection.....	355
85.10. mstp tc-protection interval	355
85.11. mstp tc-protection threshold	356
85.12. mstp time-factor.....	356
85.13. mstp bpdu-guard	356
85.14. mstp bpdu-filter.....	356
85.15. mstp instance <id> vlan.....	357
85.16. mstp region-name	357
85.17. mstp enable instance	357
85.18. mstp disable instance	358
85.19. mstp revision	358
85.20. mstp flap-guard	358
85.21. mstp external cost	358
85.22. mstp instance <id> cost.....	359
85.23. mstp portfast.....	359
85.24. mstp link-type.....	359
85.25. mstp loop-guard	360
85.26. mstp root-guard	360
85.27. mstp mcheck	360
85.28. mstp instance <id> port-priority	361
85.29. mstp config-digest-snooping.....	361

85.30. show mstp instance	361
85.31. show mstp disabled-instance	361
85.32. show mstp config-id	362
86. EAPS configuration manual	362
86.1. eaps	362
86.2. eaps domain	362
86.3. control-vlan	362
86.4. fail-timer	363
86.5. hello-timer	363
86.6. preup-timer	363
86.7. ring	364
86.8. topo-collect	364
86.9. work-mode	364
86.10. show eaps	365
86.11. show eaps control-vlan	365
86.12. show eaps domain	365
86.13. show eaps statistics	365
86.14. show eaps topology	366
86.15. clear eaps	366
87. ERPS configuration manual	366
87.1. erps	366
87.2. erps instance	367
87.3. control-vlan	367
87.4. guard-timer	367
87.5. wtr-timer	368
87.6. mel	368
87.7. protected-instance	368
87.8. port0 ethernet	368
87.9. port1 ethernet	369
87.10. ring	369

87.11. show erps	369
87.12. show erps control-vlan	370
87.13. show erps instance	370
87.14. show erps instance <id> statistics	370
87.15. show erps statistics	370
88. PVST/Rapid-PVST configuration manual	371
88.1. stp	371
88.2. stp mode	371
88.3. pvst hello-time	371
88.4. pvst forward-time	372
88.5. pvst max-age	372
88.6. pvst instance <id> vlan	372
88.7. pvst instance <id> priority	373
88.8. pvst bpdu-guard	373
88.9. pvst bpdu-filter	373
88.10. pvst loop-guard	373
88.11. pvst edge-port	374
88.12. pvst instance <id> cost	374
88.13. pvst instance <id> port-priority	374
88.14. show pvst instance brief	375
89. Eth-Trunk 配置命令	375
89.1. interface eth-trunk	375
89.2. link-aggregation load-balance	375
89.3. link-aggregation mode	376
89.4. link-aggregation members ethernet	376
89.5. link-aggregation eth-trunk	376
89.6. lacp mode	377
89.7. lacp period	377
89.8. lacp port-priority	377
89.9. lacp system-priority	378

89.10. show lacp local	378
89.11. show lacp sys-id.....	378
89.12. show lacp neighbor	378
90. FlexLink configuration manual	379
90.1. flex-link group.....	379
90.2. master-port	379
90.3. slave-port.....	380
90.4. preemption mode.....	380
90.5. preemption delay	380
90.6. flex-link flush send.....	381
90.7. flex-link flush receive.....	381
90.8. show flex-link group	381
90.9. show flex-link flush.....	381
91. MonitorLink configuration manual	382
91.1. monitor-link-group	382
91.2. uplink interface.....	382
91.3. downlink interface.....	382
91.4. show monitor-link-group.....	383
92. Sntp-Client Configuration command.....	383
92.1. sntp client.....	383
92.2. sntp client mode	384
92.3. sntp client authenticate	384
92.4. sntp client authentication-key encrypt	384
92.5. sntp client authentication-key.....	385
92.6. sntp client broadcastdelay	385
92.7. sntp client poll-interval.....	385
92.8. sntp client retransmit	386
92.9. sntp client retransmit-interval	386
92.10. sntp client summer-time dayly	386
92.11. sntp client summer-time weekly	387

92.12. sntp client valid-server	387
92.13. sntp trusted-key	387
92.14. sntp server key	388
92.15. sntp server backup	388
92.16. sntp server	388
92.17. show sntp client	389
92.18. show sntp client summer-time	389
93. System time configuration command	389
93.1. clock set	389
93.2. clock timezone	390
93.3. clock summer-time dayly	390
93.4. clock summer-time weekly	390
93.5. show clock	391
94. 1.Static route configuration commands	391
94.1. 1.1 ip route	391
94.2. 1.2 show ip route	392
95. 2 IPv6 static route configuration command	392
95.1. 2.1 ipv6 route	392
95.2. 2.2 show ipv6 route	393
96. 802.1Q Configuration command	394
96.1. vlan	394
96.2. switchport	394
96.3. switchport pvid	394
96.4. switchport link-type	395
96.5. switchport trunk allowed vlan	395
96.6. switchport trunk tagged pvid	395
96.7. switchport hybrid untagged vlan	396
96.8. switchport hybrid tagged vlan	396
96.9. priority	396
96.10. ingress acceptable-frame	397

96.11. ingress filtering	397
96.12. interface vlan-interface	397
96.13. description	398
96.14. show interface vlan brief.....	398
97. QINQ Configuration	398
97.1. qinq	398
97.2. qinq inner-tpid.....	399
97.3. qinq mode	399
97.4. qinq outer-tpid	399
97.5. vlan pass-through	400
97.6. no vlan pass-through.....	400
97.7. show qinq	400
97.8. show vlan pass-through.....	401
97.9. no vlan insert	401
97.10. vlan insert.....	401
98. GVRP Configuration	402
98.1. gvrp	402
98.2. garp permit vlan	402
98.3. garp forbid vlan	402
98.4. show gvrp.....	403
98.5. show gvrp interface	403
98.6. show gvrp interface ethernet.....	403
99. Vlan Swap Command.....	403
99.1. vlan swap	403
99.2. show vlan-swap.....	404
100. Protocol-VLAN Configuration Command	404
100.1. vlan-protocol.....	404
100.2. vlan-protocol profile	405
100.3. show vlan-protocol interface	405
100.4. show vlan-protocol profile.....	405

101. vlan-subnet Configuration command	406
101.1. vlan-subnet	406
101.2. no vlan-subnet.....	406
101.3. vlan-subnet precede.....	407
101.4. show vlan-subnet.....	407
102. Mac-vlan Configuration Command.....	407
102.1. vlan-mac-table.....	407
102.2. no vlan-mac-table	408
102.3. show vlan-mac-table	408
103. Vlan-trunking Configuration Commands	408
103.1. vlan-trunking	408
103.2. vlan-trunk mode	409
103.3. show vlan-trunking	409
104. Voice vlanConfiguration Commands	409
104.1. voice vlan	409
104.2. voice vlan aging	410
104.3. voice vlan oui-mac.....	410
104.4. voice vlan security	411
104.5. voice vlan enable disable	411
104.6. voice vlan mode.....	412
104.7. voice vlan qos	412
104.8. show voice vlan	413
104.9. show voice vlan device	413
104.10. show voice vlan oui-mac	413

1. Access control list configuration command

1.1. 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	1-2999

1.2. 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 0~255 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	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 <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	Wildcard - counter - determine the range of port number
<i>icmp-type</i> <i>icmp-code</i>	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 headlinetraffic-class	Only valid for IPv6 message
precedence	precedence	IP priority range 0~7

	message priority	
tos	Tos message priority	Range 0~15
dscp	DSCP priority	Range 0~63
fragments	Presentation of a piecewise message	The definition rules are valid only for non - chip slices
time-range name	custom Time and name	Except? 1-32 characters outside

1.3. 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

1.4. access-list mac-acl

Command Function

access-list num { permit | deny } [mac-pro protocol] [cos vlan-pri][source-mac-addr source-mac-wildcard] [any] } [dest-mac-addr dest-mac-wildcard] | any } [time-range name] Command two layer access control list

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 } [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
start-vlan-id end-vlan-id	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.
source-mac-addr source-mac-wildcard	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
time-range name	custom Time and name	Except? 1-32 characters outside

1.5. 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 ] [ source-mac-addr source-mac-wildcard ] | any }
{ [ dest-mac-addr dest-mac-wildcard ] | 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 ]
```

```
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 }
[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-	Physical port	Into ports and out ports

num	number	
any	Any address	Into ports and out ports
ip-pro protocol	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
{ source-IPv4/v6/ masklength 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; Any ipv6any represents an arbitrary source address.
{ 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.
source-port/ dest-port wildcard	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
igmp-type	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
<btos< b=""></btos<>	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 name	custom Time and name	Except? 1-32 characters outside

1.6. 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

1.7. 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

/

1.8. 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

/

1.9. 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
<i>num</i>	Access control list number	1-2999

1.10. 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

1.11. 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

1.12. 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, week days, 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

1.13. 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

1.14. 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

1.15. access-group

Command Function

access-group [ip-acl *ip-num*] [mac-acl *mac-num*] [hybrid-acl *hyb-num*] [subitem *sub-num*] in 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

1.16. 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 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

2. QOS Configuration Command

2.1. rate-limit

Command Function

rate-limit input [ip-acl *ip-num*] | [mac-acl *mac-num*] | [hybrid-acl *hyb-num*] [subitem *sub-num*]] *target-rate* Command flow speed limit in global mode

rate-limit input [ip-acl *ip-num*] | [mac-acl *mac-num*] | [hybrid-acl *hyb-num*] [subitem *sub-num*]] two-rate-policer *id* Command configures dual speed three color application strategy in global mode

Command Format

rate-limit input ip-acl 1 64

rate-limit input ip-acl 1 two-rate-policer 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>target-rate</i>	The maximum rate (1000 bit per second) should be 64 times the integer.	16-1000000
<i>id</i>	Two rate policer ID for input	0-255

2.2. two-rate-policer

Command Function

```
two-rate-policer id cir <cir value> cbs <cbs value> pir <pir value> pbs <pbs value>
```

The command configures the parameters of two-rate-policer in global mode

Command Format

```
two-rate-policer 1 cir 16 cbs 64 pir 64 pbs 128  
no two-rate-policer 1
```

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>id</i>	Two rate policer ID for input	0-255
<i>Cir-value</i>	The Convention rate (bit per second) should be an integer multiple of 64.	16-1000000
<i>cbs-value</i>	For a burst size (KByte), the size of the target should be 4 times the power of 2.	1-12800
<i>pir-value</i>	Peak rate	16-1000000
<i>pbs-value</i>	Peak burst size	1-12800

2.3. 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	1-8
<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

2.4. 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
----------------	--	-------

2.5. 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 mark up
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 p 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	0-7

	priority	
--	----------	--

2.6. 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

2.7. 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 number	2000-2999
<i>subitem</i>	The subitem number of the three, two, and mixed ACL list	0-127

2.8. 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

2.9. 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-idCommand 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

2.10. 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-idCommand 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 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>	Insert VLAN ID	1-4094

2.11. 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

/

2.12. show qos-info statistic

Command Function

show qos-info statistic The command displays all QoS statistics

Command Format

show qos-info statistic

Parameter Declaration

/

2.13. 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**

/

2.14. show qos-info all**Command Function****show qos-info all** Command displays all QoS parameter settings**Command Format****show qos-info all****Parameter Declaration**

/

2.15. 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**

/

2.16. 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**

/

2.17. 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**

/

2.18. 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

/

2.19. 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

/

3. COS Configuration Command

3.1. queue-scheduler

Command Function

(no) queue-scheduler Command to open (close) queue scheduling

Command Format

queue-scheduler

no queue-scheduler

Parameter Declaration

/

3.2. queue-scheduler mode

Command Function

queue-scheduler mode[sp-wfq | sp-wrr | strict-priority | wfq | wrr] <queue

value> Command to configure queue scheduling mode

Command Format

queue-scheduler mode wrr 1 1 1 1 1 1 1 1

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>sp-wfq</i>	Strict priority + Weighted fair robin	
<i>sp-wrr</i>	Strict Priority + Weighted Round Robin	
<i>strict-priority</i>	Strict priority queue(default)	
<i>wfq</i>	Weighted fair queuing	
<i>wrr</i>	Weighted round robin	
queue value	Weight queue(%)	0-128

3.3. no queue-scheduler mode

Command Function

no queue-scheduler modeCommand configuration queue mode to restore the default

Command Format

no queue-scheduler mode

Parameter Declaration

None

3.4. queue-scheduler cos-map

Command Function

queue-scheduler cos-map <802.1p priority> < Queue of Class>Command to configure cos-map queue

Command Format

queue-scheduler cos-map 0 1

Parameter Declaration

Parameter	Parameter Declaration	Values
802.1p priority		0-7
Queue of Class		0-7

3.5. queue-scheduler dscp-map

Command Function

(no)queue-scheduler dscp-map Command to open (close) dscp-map

Command Format

queue-scheduler dscp-map

Parameter Declaration

none

3.6. queue-scheduler dscp-map

Command Function

queue-scheduler dscp-map <value> <802.1p priority> Command to configure the value of dscp-map

Command Format

queue-scheduler dscp-map 0 7

Parameter Declaration

Parameter	Parameter Declaration	Values
value	DSCP value	0-63
802.1p priority		0-7

3.7. show queue-scheduler

Command Function

show queue-scheduler View queue scheduling configuration

Command Format

show queue-scheduler

Parameter Declaration

none

3.8. show queue-scheduler cos-map

Command Function

show queue-scheduler cos-map View cos-map queue scheduling configurationp

Command Format

show queue-scheduler cos-map

Parameter Declaration

none

3.9. show queue-scheduler dscp-map

Command Function

show queue-scheduler dscp-map View dscp-map queue scheduling configurationp

Command Format

show queue-scheduler dscp-map

Parameter Declaration

none

4. ARP Learning configuration command

4.1. 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	

4.2. 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	

4.3. 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
------	--	----------------

4.4. arp peer

Command function

Configure arp peer

arp peer <ip> <mac> <ethernet <port-num>>

no arp peer

Parameter Description

Parameter	Parameter Description	Value
ip	IP Address	
mac	Mac Address	
port-num	Port ID	

4.5. 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	

4.6. 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	

4.7. 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 Description	Value
ip	IP Address	
all	All arp	
dynamic	dynamic	
static	static	
mac	Mac Address	
vlan-id	Vlan-id	
port-num	port-num	

4.8. arp overwrite

Command function

Configure arp collision message under physical Interface

Command format

```
arp overwrite
no arp overwrite
```

Parameter Description

None

4.9. gratuitous-arp

Command function

Send free arp when configuration port is up under physical interface

Command format

```
gratuitous-arp
gratuitous-arp
```

Parameter Description

None

4.10. 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

4.11. 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

4.12. show arp aging-time

Command function

View arp aging-time

Command format

```
show arp aging-time
```

Parameter Description

None

4.13. show arp overwrite

Command function

View arp aging time

Command format

```
show arp overwrite [interface ethernet <port-num>]
```

Parameter Description

None

4.14. show arp peer

Command function

View peer

Command format

show arp peer

Parameter Description

None

4.15. show arp reply-repeat

Command function

View arp reply-repeat

Command format

show arp reply-repeat [interface ethernet <port-num>]

Parameter Description

None

5. ARP Proxy configuration command

5.1. arp-proxy

Command function

Vlan enables arp-proxy function firstly

Command format

arp-proxy

no arp-proxy

Parameter Description

None

5.2. 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

5.3. show arp-proxy**Command function**

Show arp-proxy

Command format

show arp-proxy

Parameter Description

None

6. IPv6ND Configuration command**6.1. 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	

6.2. ipv6 neighbor <ipv6> <mac> <vlan-id>**Command function**

Configure the nd long static table

Command format

ipv6 neighbor <ipv6> <mac> <vlan-id> <port-id>

Parameter Description

Parameter	Parameter Description	Value
-----------	-----------------------	-------

ipv6	Ipv6 Address	
mac	Mac address	
vlan-id	Vlan id	
port-id	Port id	

6.3. 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		1-2000

6.4. 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

6.5. 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

6.6. ipv6 nd dad attempts

Command function

Configure send dad message times of L3 interface or send dad message times globally

Command format

```
ipv6 nd dad attempts <times>
no ipv6 nd dad attempts
```

Parameter Description

Parameter	Parameter Description	Value
times		0-20

6.7. 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

6.8. 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

6.9. 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

6.10. 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

6.11. 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	

6.12. 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

6.13. show ipv6 nd dad attempts

Command function

Show sending times of dad

Command format

show ipv6 nd dad attempts

Parameter Description

None

6.14. show ipv6 nd reachable-time

Command function

Show reachable-time status time

Command format

show ipv6 nd reachable-time

Parameter Description

None

6.15. 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

6.16. show ipv6 nd ra halt

Command function

Show whether the L3 interface suppresses ra

Command format show ipv6 nd ra halt

Command format none

6.17. 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

6.18. show ipv6 nd ra interval

Command function show ipv6 nd ra interval

Command format show ipv6 nd ra interval

Command format none

6.19. show ipv6 nd ra prefix

Command function show ipv6 nd ra prefix

Command format show ipv6 nd ra interval

Command format none

6.20. 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

7. Anti ARP spoofing configuration command

7.1. arp anti-spoofing

Command Function

Opening arp anti-spoofing function

Command Format

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

Parameter Declaration

/

7.2. 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	

7.3. 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	

7.4. 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

/

7.5. 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-check
```

Parameter Declaration

/

7.6. 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

/

7.7. show arp anti-spoofing

Command Function

View fraud prevention configuration

Command Format

show arp anti-spoofing

Parameter Declaration

/

7.8. show arp anti-spoofing bind

Command Function

View the protected host

Command Format

show arp anti-spoofing bind

Parameter Declaration

/

7.9. show arp anti-attack

Command Function

View the trust port

Command Format

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

Parameter Declaration

/

8. Anti ARP flood configuration command

8.1. arp anti-flood

Command Function

Opening arp anti-flood function

Command Format

arp anti-flood

no arp anti-flood

Parameter Declaration

/

8.2. 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	

8.3. 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

8.4. 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

8.5. 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	

8.6. 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

8.7. show arp anti-flood

Command Function

View the flood prevention configuration

Command Format

show arp anti-flood

Parameter Declaration

/

8.8. show arp anti-flood rate-limit

Command Function

View the port ARP threshold

Command Format

show arp anti-flood port-rate

Parameter Declaration

/

9. Anti Dos attack configuration command

9.1. 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

/

9.2. 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

9.3. 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,	
type8	Source port number less than 1024, non slice	
	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	Less than the specified length	0-65535
	IPv6 fragment	
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.	
tcp-len	The first package of TCP less than the specified TCP header length	0-255

9.4. show anti-dos

Command Function

View the anti DOS configuration

Command Format

show anti-dos

Parameter Declaration

/

10. Shutdown-Control Configuration

Command

10.1. 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

10.2. 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	

10.3. 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

10.4. 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 Declaration	Values
port-list	Port list	

11. BPDU-Car Configuration command

11.1. port-car

Command Function

Global or under port switch

Command Format

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

Parameter Declaration

/

11.2. 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

11.3. show port-car**Command Function**

View configuration information

Command Format**show port-car****Parameter Declaration**

/

12. CPU-Car Configuration Command**12.1. 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		1-1000 pps default: 800pps

12.2. show cpu-car

Command Function

View the running information

Command Format

show cpu-car

Parameter Declaration

/

12.3. 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	

12.4. clear cpu-statistics

Command Function

Scavenging CPU collection statistics

Command Format

clear cpu-statistics

Parameter Declaration

/

12.5. 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	

12.6. 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	

12.7. show cpu-utilization

Command Function

Look at the CPU usage rate

Command Format

show cpu-utilization

Parameter Declaration

/

13. Discard-BPDU Configuration Command

13.1. discard-bpdu

Command Function

Global or port configuration discards BPDU messages

Command Format

discard-bpdu

no discard-bpdu

Parameter Declaration

/

13.2. show discard-bpdu

Command Function

View the running information

Command Format

show discard-bpdu

Parameter Declaration

/

14. Anti DHCP configuration command

14.1. dhcp anti-attack

Command Function

Anti attack function switch

Command Format

dhcp anti-attack

no dhcp anti-attack

Parameter Declaration

/

14.2. 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	

14.3. 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	

14.4. 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

14.5. 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

14.6. 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

14.7. 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

/

14.8. show dhcp anti-attack

Command Function

View the running information

Command Format

show dhcp anti-attack

Parameter Declaration

/

14.9. show dhcp anti-attack interface

Command Function

View port operation

Command Format

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

Parameter Declaration

/

15. Two level password authentication configuration command

15.1. enable password 0

Command Function

Configure the enable password

Command Format

enable password 0 <clear>

Parameter Declaration

Parameter	Parameter Declaration	Values
clear	enable password	STRING<1-32>

15.2. enable password 7

Command Function

Configuring encrypted password

Command Format

enable password 7 <encrypt>

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>encrypt</i>	Encrypted cipher	STRING<1-32>

15.3. enable password level

Command Function

Configuring passwords for different levels

Command Format

enable password level <id> <0 |7 ><string >
no enable password level <id>

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>id</i>	Level	1-15
0	Enable	
7	Encrypted	
<i>string</i>	Code	STRING<1-32>

16. DHCP-Snooping Configuration command

16.1. 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

16.2. 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

16.3. 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  
no dhcp-snooping fast-remove
```

Parameter Description

None

16.4. dhcp-snooping max-learn-num

Command function

(no) dhcp-snooping max-learn-num 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 10
```

Parameter Description

Parameter	Parameter description	Value range
value	Maximum number of DHCP clients allowed	0-2048

16.5. show dhcp-snooping interface

Command function

```
show dhcp-snooping interface [ ethernet port-id ]
```

Command format

```
show dhcp-snooping interface ethernet 0/0/1
```

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

16.6. 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

16.7. show dhcp-snooping clients

Command function

```
show dhcp-snooping client table items
```

Command format

show dhcp-snooping clients

Parameter Description

none

17. DHCP-Server Configuration Command

17.1. dhcp-server

Command function

(no) dhcp-server group-id ip-address

command creates and deletes the dhcp server

Command format

dhcp-server 1 192.168.1.1

no dhcp-server 1

Parameter Description

Parameter	Parameter description	Value range
group-id	group number	INTEGER<1-256>
ip-address	dhcp server address	32 bit binary number in format of X:X:X:X

17.2. 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 aa

no dhcp-server ip-pool aa

Parameter Description

Parameter	Parameter description	Value range
pool-name	IP pool name	1-32 characters

17.3. 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

17.4. 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

17.5. 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

17.6. domain-name

Command function

domain-name *name*

command is used to configure DNS domain suffixes assigned to DHCP clients in ip-pool mode

Command format

domain-name test.com

no domain-name

Parameter Description

Parameter	Parameter description	Value range
<i>name</i>	Domain name	STRING<1-32>

17.7. lease

Command function

lease *time*

command is used to configure the lease expiration function
DHCP IP address in the server interface address pool

Command format

lease 10:00:00

no lease

Parameter Description

Parameter	Parameter description	Value range
<i>time</i>	Lease time	format ddd:hh:mm, no more than 999 days

17.8. option

Command function

option *code* [sub-option *sub-code*] { ascii *ascii-string* | hex *hex-string* |

ip *ip-address* }

Custom options for configuring the DHCP address pool for the current interface

Command format

option 22 sub-option 33 ip 1.1.1.1

no option 22 sub-option 33

Parameter Description

Parameter	Parameter description	Value range
<i>code</i>	Option code	INTEGER<4–254>
<i>sub-code</i>	Sub-option code	INTEGER<1–254>
<i>ascii-string</i>	ASCII format string	STRING<1–128>
<i>hex-string</i>	HEX integer	HEX<0–FF>
<i>ip-address</i>	Ip address	32 bit binary number in format of X:X:X:X

17.9. unbind-client

Command function

unbind-client section *section-id*

configures unbound clients

Command format

unbind-client section 1

no unbind-client section

Parameter Description

Parameter	Parameter description	Value range
<i>section-id</i>	Section id	INTEGER<0–7>

17.10. 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

17.11. 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

17.12. 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
<i>ip-address</i>	Configurable valid IP address	32 bit binary number, format is X:X:X:X

17.13. dhcp-client bind

Command function

(no) dhcp-client bind *ip-address mac-address vlan-id user-name*

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
<i>user-name</i>	user name	1-32 chars

17.14. 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

17.15. dhcp-server traps**Command function**

dhcp-server traps

When the client gets IP address or releases IP address, trap message is generated

Command format

```
dhcp-server traps
no dhcp-server traps
```

Parameter Description

none

17.16. show dhcp-server**Command function**

show dhcp-server[group-id]

command to view dhcp server information

Command format

```
show dhcp-server
```

Parameter Description

Parameter	Parameter description	Value range
group-id	group number	INTEGER<1-256>

17.17. show dhcp-server interface**Command function**

```
show dhcp-server interface [all|supervlan-interface supervlan-id|vlan-interface vlan-id]
```

command to view dhcp server interface information

Command format

```
show dhcp-server interface all
```

Parameter Description

Parameter	Parameter description	Value range
<i>supervlan-id</i>	Supervlan id	1-128
<i>vlan-id</i>	Vlan id	1-4094

17.18. 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

17.19. 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

17.20. 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

18. DHCP-Relay Configuration Command

18.1. dhcp-relay

Command function

(no) dhcp-relay

command switch DHCP relay function

Command format

dhcp-relay

no dhcp-relay

Parameter Description

None

18.2. 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

18.3. 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

18.4. 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	Value range
-----------	-----------	-------------

	description	
egress	Server IP address egress	none
ingress	Server IP address ingress	none

18.5. show dhcp-relay

Command function

show dhcp-relay information

Command format

show dhcp-relay

Parameter Description

None

19. DHCP Option82 Configuration Command

19.1. dhcp-option82

Command function

(no) dhcp-option82

Command global switch

Command format

dhcp-option82

Parameter Description

none

19.2. 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

19.3. 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

19.4. dhcp-option82 format verbose

Command function

dhcp-option82 format verbose [node-identifier[host-name|mac] user-defined *defined -string*]

Command to configure (delete) user-defined format of verbose format

Command format

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

Parameter Description

Parameter	Parameter description	Value range
<i>defined -string</i>	User-defined format number	1-60 characters

19.5. dhcp-option82 information format

Command function

dhcp-option82 information format [ascii | hex]

command to configure(delete) encapsulation format of verbose format

Command format

dhcp-option82 information format ascii

no dhcp-option82 information format

Parameter Description

none

19.6. 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

19.7. dhcp-option82 circuit-id user-defined**Command function**

dhcp-option82 circuit-id user-defined string

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

19.8. 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

19.9. 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

20. DHCPv6-Snooping Configuration

Command

20.1. dhcpv6-snooping

Command function

(no) dhcpv6-snooping

Command format

**dhcpv6-snooping
no dhcpv6-snooping**

Parameter Description

None

20.2. **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

20.3. **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

no dhcpv6-snooping port-down-action fast-remove

Parameter Description

None

20.4. **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-clients 2

Parameter Description

Parameter	Parameter description	Value range
value	Maximum number of DHCP clients allowed	0-2048

20.5. show dhcpv6-snooping clients

Command function

show dhcpv6-snooping clients

Command to view dhcpv6-snooping client table entries

Command format

show dhcpv6-snooping clients

Parameter Description

None

20.6. show dhcpv6-snooping interface

Command function

show dhcpv6-snooping interface [ethernet port-id]

Command to view the DHCPV6-Snooping port configuration

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

20.7. 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

20.8. 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 dhcpcv6-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

21. DHCPv6 Option18 configuration command

21.1. 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

dhcpv6-snooping information interface-id

21.2. dhcpv6-snooping information interface-id

Command function

(no) dhcpv6-snooping information interface-id[hostname|ipv4-address *ipv4-address|ipv6-address* *ipv6-address|string string|user-defined user-defined]*

command is used to configure DHCPv6 format of Interface-ID options in the message

Command format

dhcpv6-snooping information interface-id user-defined sysip

no dhcpv6-snooping information interface-id

Parameter Description

Parameter	Parameter description	Value range
Ipv4-address	Ipv4 address	32 bit binary number in format of X:X:X:X
<i>Ipv6-address</i>	a valid ipv6 address can be configured	128 bit binary number in format of X:X::X:X
<i>string</i>	string	STRING<1-64>
<i>User-defined</i>	User defined	STRING<1-128>

21.3. show dhcpv6-snooping information

Command function

show dhcpv6-snooping information

command to show DHCPv6 Option18

Command format

show dhcpv6-snooping information

Parameter Description

None

22. DHCPv6 Option37 Configuration command

22.1. 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

22.2. 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
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<code>hostname</code>	<code>hostname</code>	none
<code>ipv4-address</code>	Configurable valid IP address	32-bit binary in X:X:X:X format
<code>Ipv6-address</code>	Configurable valid IPv6 address	128-bit binary in X:X:X:X:X:X:X:X format
<code>string</code>	User-defined string	1--64 Character
<code>user-defined</code>	Use-defined format alphabetic string	1--128 Character

22.3. show dhcpv6-snooping information

Command function

show dhcpv6-snooping information

Command to show DHCPv6 Option37

Command format

show dhcpv6-snooping information

Parameter Description

None

23. File download configuration command

23.1. 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

23.2. 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:X

23.3. load application ftp

Command function

```
load application ftp [inet] 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:X
username	ftp server username	STRING<1-64>
password	ftp server password	STRING<1-32>

23.4. 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

23.5. load whole-bootrom tftp

Command function

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

Command to use tftp to download the bootrom program

Command format

load whole-bootrom tftp [inet 1.1.1.1] boottrom.bin

load whole-bootrom tftp [inet6 2001::1] boottrom.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

23.6. load whole-bootrom ftp

Command function

load whole-bootrom ftp [inet] 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] boottrom.bin admin admin

load whole-bootrom ftp [inet6 2001::1] boottrom.bin 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>
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23.7. load configuration xmodem

Command function

load configuration xmodem

Command to use xmodem to download configuration files

Command format

load configuration xmodem

Parameter description

None

23.8. 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:X

23.9. 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>

23.10. 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	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

23.11. 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

23.12. 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

23.13. 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	Value
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	description	
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	STRING<1-64>
password	ftp server password	STRING<1-32>

24. file upload configuration command

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

24.2. 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

24.3. 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>

24.4. 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
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24.5. 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

24.6. 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>

24.7. 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

24.8. 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

24.9. 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

24.10. 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

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

24.12. 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:X

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

25. configuration management command

25.1. 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

25.2. 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

25.3. 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

25.4. clear startup-config**Command function**

```
clear startup-config [ with user-info]
```

Command to clear startup configuration

Command format

```
clear startup-config
```

```
clear startup-config with user-info
```

Parameter description

None

26. Active and standby file system configuration command

26.1. 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

26.2. 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	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	Any character available
password	ftp server password	Any character available

26.3. 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

27. Port mirror configuration command

27.1. 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
---------	---------	---

27.2. 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

27.3. 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

27.4. show mirror

Command function

show mirror

Command to view mirroring groups

Command format

show mirror

Parameter Description

None

28. Remote 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 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

28.3. 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

28.4. no remote_mirror rspan local**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 <vlan id>
```

Parameter Description

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

28.5. 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

28.6. 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

28.7. **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

28.8. **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
vlan-id	Get vlan id	1-4094

28.9. **remote_mirror rspan parse vlan**

Command function

remote_mirror rspan parse vlan *vlan-id*

Command to configure the remote mirror vlan for theparse device

Command format

remote_mirror rspan parse vlaan 12

Parameter Description

Parameter	Parameter description	Value range

vlan-id	Get vlan id	1-4094
---------	-------------	--------

28.10. no remote_mirror rspan parse vlan

Command function

no remote_mirror rspan parse vlan *vlan-id*

Command to remove the remote mirror vlan from the parse device

Command format

no remote_mirror rspan parse vlan 12

Parameter Description

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

28.11. show remote_mirror

Command function

show remote_mirror

Command to view remote mirror group

Command format

show remote_mirror

Parameter Description

None

29. Configure flow mirror

29.1. mirrored-to

Command function

mirrored-to [hybrid-acl <2000-2999> | ip-acl<1-999> | mac-acl<1000-1999>] [subitem <0-127> | interface ethernet *port-id*]

Command to configure stream mirror

Command format

mirrored-to mac-acl 1000 subitem 2 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
---------	---------	---

29.2. no mirrored-to

Command function

```
no mirrored-to [ hybrid-acl <2000-2999> | ip-acl<1-999> | mac-
acl<1000-1999> ] [subitem <0-127> ]
Command to delete flow mirror
```

Command format

```
no mirrored-to mac-acl 1000 subitem 2
```

Parameter Description

None

29.3. show qos-info mirrored-to

Command function

```
show qos-info mirrored-to
Command to view flow mirror
```

Command format

```
show qos-info mirrored-to
```

Parameter Description

None

30. RMON configuration command

30.1. 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
--------	--------------------	-----------------

30.2. 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

30.3. 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

30.4. 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

30.5. 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

30.6. 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

30.7. 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

30.8. 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

30.9. 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

30.10. 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	Value range

	description	
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

30.11. 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

30.12. 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

31. Bandwidth-Control configuration

command

31.1. 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 bandwidth limit	16-1000000

31.2. show bandwidth

Command function

show bandwidth [ethernet port-id]

Command to view port bandwidth limit information

Command format

show bandwidth ethernet 0/0/2

show bandwidth

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

32. MAC-address-management-configuration command

32.1. 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

32.2. 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

32.3. 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

32.4. 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

32.5. mac-address-table max-mac-count

Command function

mac-address-table max-mac-count *count*

Port or vlan mode configuration port learns the number of MAC addresses

Command format

mac-address-table max-mac-count 1

Parameter Description

Parameter	Parameter Description	Value
count	Number of MAC address	1-8191

32.6. no mac-address-table max-mac-count

Command function

no mac-address-table max-mac-count

Port or vlan mode deletes the number of learned MAC addresses

Command format

no mac-address-table max-mac-count

Parameter Description

none

32.7. show mac-address max-mac-count

Command function

Show mac-address max-mac-count [interface ethernet *port-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
```

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
vlan-id	Set vlan id	1-4094

32.8. 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

32.9. 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: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

32.10. 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

32.11. 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

33. DLF-Control configuration command

33.1. 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

33.2. 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 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

33.3. 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

33.4. 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

34. Local-Switch configuration command

34.1. local-switch

Command function

(no)local-switch

Command to switch Local-switch under port

Command format

local-switch

no local-switch

Parameter Description

None

34.2. show local-switch

Command function

show local-switch [interface ethernet *port-id*]

Command view local-switch configuration

Command format

show local-switch

show local-switch interface ethernet 0/0/1

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

35. SLF-Control configuration command

35.1. 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

35.2. 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

36. Flow-Control configuration command

36.1. 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

36.2. show flow-control interface

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 number port	According to the physical port of the switch, for example, 28-port switch: 0/0/1-0/1/4

37. Error packet statistics

37.1. show statistics interface ethernet

Command function

show statistics interface ethernet *port-id*

Command to view all or single port error packet statistics

Command format

show statistics interface ethernet 0/0/1

show statistics interface

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

38. IPv4 IF-Vlan Interface configuration command

38.1. 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

38.2. ip address ipv4 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

38.3. Ip address

Command function

(no)ip address [dhcp| bootp] Command to configure or delete the dynamic IP address of a common VLAN interface

Command format

```
ip address dhcp
ip address bootp
ip address primary 1.1.1.1
no ip address dhcp
no ip address bootp
```

Parameter Description

none

38.4. 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	Value range

	description	
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

38.5. ip icmp host-unreachable send

Command function

ip icmp host-unreachable send Command to configure or delete
icmp unreachable

Command format

ip icmp host-unreachable send enable
ip icmp host-unreachable send disable

Parameter Description

None

38.6. ip icmp mask-request receive

Command function

ip icmp mask-request receive Command to configure or delete
icmp mask-request

Command format

ip icmp mask-request receive enable
ip icmp mask-request receive disable

Parameter Description

None

38.7. 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

38.8. 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

39. IPv4 SuperVlanInterface configuration command

39.1. 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	1-128

39.2. 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

39.3. 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

39.4. Ip address

Command function

(no)ip address [dhcp| bootp] Command to configure or delete the dynamic IP address of a common VLAN interface

Command format

```
ip address dhcp
ip address bootp
ip address bootp
no ip address dhcp
no ip address bootp
```

Parameter Description

none

39.5. ip adres range

Command function

(no)ip adres 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

39.6. ip icmp host-unreachable send

Command function

ip icmp host-unreachable send Command to configure or delete icmp unreachable

Command format

```
ip icmp host-unreachable send enable
ip icmp host-unreachable send disable
```

Parameter Description

None

39.7. ip icmp mask-request receive

Command function

ip icmp mask-request receive Command to configure or delete icmp mask-request

Command format

```
ip icmp mask-request receive enable
ip icmp mask-request receive disable
```

Parameter Description

None

39.8. 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

39.9. 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

40. IPv6 IF-VlanInterface configuration command

40.1. 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-localCommand 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

40.2. 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	1-2000

40.3. 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

40.4. 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

40.5. 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

40.6. 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

40.7. ipv6 nd ra halt

Command function

(no)ipv6 nd ra halt

Command format

ipv6 nd ra halt

Parameter Description

None

40.8. 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

40.9. 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

40.10. 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	Value range

	description	
prefix-nam	prefix-nam	1-32 characters
ipv6address	ipv6address	128-bit binary in 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

40.11. 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

40.12. show ipv6 interface

Command function

 show ipv6 interface [*vlan-inter|supervlan-inte|loopback-inter*]

Command format

 show ipv6 interface *vlan-interface 1|supervlan-interface 1|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

40.13. 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

40.14. show ipv6 nd dad attempts

Command function

show ipv6 nd dad attempts

Command format

show ipv6 nd dad attempts

Parameter Description

None

40.15. 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

40.16. show ipv6 nd reachable-time

Command function

show ipv6 nd reachable-time

Command format

show ipv6 nd reachable-time

Parameter Description

None

40.17. show ipv6 route

Command function

show ipv6 route

Command format

show ipv6 route

Parameter Description

None

41. IPv6 SuperVlanInterface configuration command

41.1. 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

41.2. 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

41.3. 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

41.4. 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

41.5. 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
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41.6. 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

41.7. ipv6 nd ra halt

Command function

(no)ipv6 nd ra halt

Parameter Description

ipv6 nd ra halt

Parameter Description

 None

41.8. 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

41.9. 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

41.10. ipv6 nd ra prefix

Command function

(no)ipv6 nd ra prefix *prefix-name* *ipv6-address* *valid-lifetime*

preferred-lifetime [no-autoconfig | off-link] 命令配置删除路由器通告地址前缀 Command to config deleting router notification address prefix

Command format

ipv6 nd ra interval 4 4

Parameter Description

Parameter	Parameter description	Value range
prefix-nam	Prefix identification name	1-32 character
ipv6address	Configurable valid ipv6 address	128-bit binary in 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

41.11. 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

41.12. 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

41.13. 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

41.14. show ipv6 nd dad attempts

Command function

show ipv6 nd dad attempts command to view number of times of sending neighbor request message when repeat address detect

Command format

show ipv6 nd dad attempts

Parameter Description

none

41.15. 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

41.16. 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

41.17. show ipv6 route

Command function

show ipv6 route Command to view the ipv6 routing table

Command format

show ipv6 route

Parameter Description

None

42. GMRP Configuration command

42.1. 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

42.2. 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>	组播 MAC 地址	128 位二进制数，格式为 X:X:X:X:X:X
<i>vid</i>	VLAN id	1-4094

42.3. 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

42.4. 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

42.5. 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

42.6. 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

43. GMP-Snooping Configuration command**43.1. 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

43.2. 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 s
<i>vid</i>	VLAN list	1-128 character

43.3. no igmp-snooping host-aging-time

Command function

no igmp-snooping host-aging-time [vlan *vid*]

command 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 character

43.4. 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	1-100s

	response time in seconds	
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43.5. 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

43.6. igmp-snooping fast-leave

Command function

igmp-snooping fast-leave

Command to configure port fast-leave in port mode.

Command format

igmp-snooping fast-leave

Parameter Description

None

43.7. 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

43.8. igmp-snooping group-limit

Command function

igmp-snooping group-limit *number*

Command to configure port max learning multicast number in port mode

Command format

igmp-snooping group-limit 1

Parameter Description

Parameter	Parameter description	Value range
<i>number</i>	Multicast group number	0-1020

43.9. 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

43.10. 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

43.11. 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
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<i>vlan-list</i>	VLAN list	1-128character
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43.12. 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	48-bit hexadecimal, 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

43.13. 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

43.14. 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	1-5

43.15. 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	1-5s

43.16. 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

43.17. 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 character

43.18. 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)	1-30000s

43.19. 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
<i>ipaddress</i>	Configurable valid multicast IP address	32 bit binary number in format of X:X:X:X

43.20. 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

43.21. 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
value	Router port aging time range (seconds)	10-1000000s

43.22. igmp-snooping router-port vlan**Command function**

```
(no)igmp-snooping router-port vlan vid interface [all | ethernet port-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
vid	VLAN id	1-4094
port-id	Port-id	Depend on the physical port of the switch, for example, 28- port- switch: 0 / 0 / 1 - 0 / 1 / 4

43.23. 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
vid	VLAN id	1-4094

43.24. igmp-snooping proxy**Command function**

(no)igmp-snooping proxy

Command to configure (cancel) Multicast message proxy

Command format

```
igmp-snooping proxy
no igmp-snooping proxy
```

Parameter Description

None

43.25. igmp-snooping proxy-source**Command function**

(no)igmp-snooping proxy-source *ipaddress*

Command to configure (cancel) proxy source ip

Command format

```
igmp-snooping proxy-source 1.1.1.1
no igmp-snooping proxy-source
```

Parameter Description

Parameter	Parameter description	Value range
<i>ipaddress</i>	Configurable valid multicast IP address	32 bit binary number in format of X:X:X:X

43.26. igmp-snooping query-proxy**Command function**

(no)igmp-snooping query-proxy

Command to configure (cancel) query proxy

Command format

igmp-snooping query-proxy
no igmp-snooping query-proxy

Parameter Description

none

43.27. igmp-snooping source-learning

Command function

(no)igmp-snooping source-learning

Command on and off source address learning

Command format

igmp-snooping source-learning

Parameter Description

none

43.28. igmp-snooping static-group

Command function

(no)igmp-snooping static-group address [source-ip address|vlan vlan-id] [all|ethernet port-id]

The command configures add(delete) the static multicast address

Command format

igmp-snooping static-group 224.1.1.1 source-ip 3.3.3.3 vlan 1 ethernet 0/0/1
no igmp-snooping static-group 224.1.1.1 source-ip 3.3.3.3 vlan 1 ethernet 0/0/1

Parameter Description

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

43.29. igmp-snooping static-group proxy

Command function

(no)igmp-snooping static-group proxy [interval *time*]

The command configures (delete) the static multicast proxy and proxy interval time

Command format

```
igmp-snooping static-group proxy
igmp-snooping static-group proxy interval 50
no igmp-snooping static-group proxy
```

Parameter Description

Parameter	Parameter Description	Value range
<i>time</i>	Interval time	30-300s

43.30. 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

43.31. 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

43.32. 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	1-4094
<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

43.33. igmp-snooping preview times

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>	60-300s
<i>time-interval</i>	<i>time-interval</i>	180-600s
<i>time-reset</i>	<i>time-reset</i>	1800-7200s
<i>permit-times</i>	<i>permit-times</i>	1-10

43.34. 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

43.35. 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 description	Value range
permit	Configure the multicast list allowed in the rules	None
deny	Configure a deny list of multicast in a rule	None

43.36. ip range

Command function

(no)ip range start-ip end-ip [vlan vlan-id]

Command to configure (delete) profile IP address range 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 group IP address	224.0.0.1-239.255.255.254
<i>end-ip</i>	End group IP address	224.0.0.1-239.255.255.254
<i>vlan-id</i>	VLAN ID	1-4094

43.37. mac range

Command function

(no)mac range start-mac end-mac [vlan vlan-id]

Command to configure (delete) 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 group MAC address	48 bit binary number in format of X:X:X:X:X:X
<i>end-mac</i>	End group MAC address	48 bit binary number in format of X:X:X:X:X:X
<i>vlan-id</i>	VLAN ID	1-4094

43.38. description

Command function

(no)description string

command to configure policy description in IGMP-Profile mode

Command format

description string
no description

Parameter Description

Parameter	Parameter Description	Value range
<i>string</i>	Profile description	STRING<1-32>

43.39. igmp-snooping profile refer

Command function

(no)igmp-snooping profile refer *profile-list*

Command to configure (deselect) the port Profile reference range 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>	Profile identifier	1-128character

43.40. show igmp-snooping

Command function

show igmp-snooping

Command to view the associated configuration of IGMP Snooping

Command format

show igmp-snooping

Parameter Description

none

43.41. show igmp-snooping router-dynamic

Command function

show igmp-snooping router-dynamic

Command to view the dynamic routing port

Command format

show igmp-snooping router-dynamic

Parameter Description

none

43.42. show igmp-snooping router-static

Command function

show igmp-snooping router-static

Command to view the static routing port

Command format

show igmp-snooping router-static

Parameter Description

none

43.43. 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

43.44. show igmp-snooping preview status

Command function

show igmp-snooping preview status

Command to view the current status of the multicast preview channel

Command format

show igmp-snooping preview status

Parameter Description

none

43.45. show igmp-snooping profile

Command function

show igmp-snooping profile [string] | ethernet port-id | vlan vlan-id]

Command to view profile information

Command format

show igmp-snooping profile ethernet 0/0/1

Parameter Description

Parameter	Parameter Description	Value range
<i>string</i>	Profile name	128character
<i>port-id</i>	Port id	According to the physical port of the switch, such as 28 port switch: 0/0/1-0/1/4
<i>vlan-id</i>	VLAN id	1-4094

43.46. show multicast

Command function

show multicast [mac-address mac]

Command to view multicast table (simple) information

Command format

```
show multicast mac-address 01:00:5e:00:01:01
```

Parameter Description

Parameter	Parameter Description	Value range
<i>mac</i>	multicast MAC address	48 bit binary number in format of X:X:X:X:X:X

44. Static multicast configuration command

44.1. multicast

Command function

```
(no)multicast mac-address mac vlan vlan-id [interface [all | ethernet port-id]]
```

Command to add (delete) member ports to a static multicast group

Command format

```
multicast mac-address 01:00:5e:01:01:01 vlan 2 interface ethernet 0/0/1  
no multicast mac-address 01:00:5e:01:01:01 vlan 2 interface ethernet 0/0/1
```

Parameter Description

Parameter	Parameter Description	Value range
<i>mac</i>	Multicast mac address	48 bit binary number in format of X:X:X:X:X:X
<i>vlan-id</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

44.2. multicast proxy

Command function

```
(no)multicast mac-address mac vlan vlan-id proxy-port ethernet port-id
```

The command creates a proxy port for a static multicast group

Command format

```
multicast mac-address 01:00:5e:01:01:01 vlan 2 proxy-port ethernet 0/0/1  
no multicast mac-address 01:00:5e:01:01:01 vlan 2 proxy-port ethernet  
0/0/1
```

Parameter Description

Parameter	Parameter Description	Value range
<i>mac</i>	Multicast mac address	48 bit binary number in format of X:X:X:X:X:X
<i>vlan-id</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

44.3. multicast proxy-interval

Command function

(no)multicast proxy-interval *value*

Command to configure (restore) the interval at which the proxy port sends a 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	1-300s

44.4. show multicast

Command function

show multicast

Command to view multicast table information

Command format

show multicast

Parameter Description

none

45. MLD-Snooping Configuration command

45.1. mld-snooping

Command function

(no)mld-snooping

Command switches the multicast listener discovery protocol

Command format

mld-snooping

no mld-snooping

Parameter Description

none

45.2. mld-snooping host-aging-time time

Command function

(no)mld-snooping host-aging-time *time*

Command to configure (restore) dynamic multicast port member 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

45.3. mld-snooping max-response-time

Command function

(no)mld-snooping max-response-time *time*

Command configuration (restore) leaves the 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>	max response time	1-100s

45.4. mld-snooping fast-leave

Command function

(no)mld-snooping fast-leave

Command to configure (delete) port fast leave in port mode

Command format

```
mld-snooping fast-leave
no mld-snooping fast-leave
```

Parameter Description

none

45.5. mld-snooping group-limit

Command function

(no)mld-snooping group-limit *number*

Command to configure (delete) the maximum number of multicast ports that can be learned in port mode

Command format

```
mld-snooping group-limit 1
no mld-snooping group-limit
```

Parameter Description

Parameter	Parameter Description	Value range
<i>number</i>	maximum number of multicast	0-1020

45.6. mld-snooping [permit | deny]

Command function

mld-snooping [permit | deny] group all

The command configures default learning rules for multicast groups that are not in the black and white list

Command format

mld-snooping permit group all

Parameter Description

none

45.7. 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 a 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>	MAC address number	1-64
<i>vid</i>	VLAN ID	1-4094

45.8. mld-snooping querier

Command function

(no)mld-snooping querier

Command to turn on or off the query

Command format

mld-snooping querier
no mld-snooping querier

Parameter Description

none

45.9. mld-snooping query-interval**Command function**

(no)mld-snooping query-interval *value*

Command configuration (restore) Generally queries the time interval of a message

Command format

mld-snooping query-interval *2*
no mld-snooping query-interval

Parameter Description

Parameter	Parameter Description	Value range
<i>value</i>	Query message sending interval (seconds)	1-30000

45.10. mld-snooping query-max-respond**Command function**

(no)mld-snooping query-max-respond *value*

Command configuration (restore) maximum response time for general query packets

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 (seconds)	1-25

45.11. mld-snooping router-port forward

Command function

(no)mld-snooping router-port forward

Command to configure (cancel) routing port forwarding

Command format

mld-snooping router-port forward

no mld-snooping router-port forward

Parameter Description

none

45.12. mld-snooping router-port-age

Command function

(no)mld-snooping router-port-age [on | off | age-time]

Command to configure (cancel) the aging time of the dynamic routing port

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>	Aging time	10-1000000s

45.13. mld-snooping router-port vlan

Command function

(no)mld-snooping router-port vlan vid [all | ethernet port-id]

Command to configure (delete) the static routing port

Command format

mld-snooping router-port vlan 1 all
no mld-snooping router-port vlan 1 all

Parameter Description

Parameter	Parameter Description	Value range
<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

45.14. mld-snooping multicast vlan

Command function

(no)mld-snooping multicast vlan vid

Command to configure (cancel) a multicast VLAN for a port

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

45.15. show mld-snooping

Command function

show mld-snooping

Command to view the configuration of the multicast listener discovery protocol

Command format

show mld-snooping

Parameter Description

none

45.16. show mld-snooping router-dynamic

Command function

show mld-snooping router-dynamic

Command to view the dynamic routing port

Command format

show mld-snooping router-dynamic

Parameter Description

none

45.17. show mld-snooping router-static

Command function

show mld-snooping router-static

Command to view the static routing port

Command format

show mld-snooping router-static

Parameter Description

none

45.18. show multicast mld-snooping

Command function

show multicast mld-snooping

Command to view a multicast group

Command format

show multicast mld-snooping

Parameter Description

none

46. l2protocol-tunnel Configuration

command

46.1. l2protocol-tunnel

Command function

Configuration protocol transmission under port

Command format

```
l2protocol-tunnel [cdp | lacp | pagp | stp | udld | vtp | dtp | gvrp| lldp |  
pvst |user-protocol]
```

Parameter Description

Parameter	Parameter description	Value range
cdp	cpd Protocol message	
lacp	Lacp Protocol message	
pagp	Pag Protocol message	
stp	Stp Protocol message	
udld	Ulld Protocol message	
vtp	Vtp Protocol message	
dtp	Dtp Protocol message	
gvrp	Gvrp Protocol message	
lldp	Lldp Protocol message	
pvst	Pvst Protocol message	
user-protocol	User defined protocol	1-16

46.2. l2protocol-tunnel user-protocol

Command function

Command to configure custom protocol transmission

Command format

```
l2protocol-tunnel user-protocol <name> protocol-mac <mac address>  
encap-type [ethernet2 | llc | snap] protocol-type <type>
```

l2protocol-tunnel user-protocol name protocol-mac 00:00:22:22:2

2:22 encap-type ethernet2 protocol-type 1800

Parameter Description

Parameter	Parameter description	Value range
name	User defined protocol name	1-16
Mac address	Protocol multicast MAC	
type	Ethernet type or DSAP/SSAP	1-ffff

46.3. l2protocol-tunnel drop-threshold

Command function

Limit Protocol transmission rate globally

Command format

```
l2protocol-tunnel [cdp | lacp | pagp | stp | udld | vtp | dtp | gvrp| lldp |
pvst] drop-threshold <value>
l2protocol-tunnel drop-threshold <value>
```

Parameter Description

Parameter	Parameter description	Value range
cdp	Cdp Protocol message	
lacp	Lacp Protocol message	
pagp	Pagp Protocol message	
stp	Stp Protocol message	
udld	Udld Protocol message	
vtp	Vtp Protocol message	
dtp	Dtp Protocol message	
gvrp	Gvrp Protocol message	
lldp	Lldp Protocol message	
pvst	Pvst Protocol message	
value	Limit value	1-200 pps

46.4. show l2protocol-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	

46.5. show l2protocol-tunnel drop-threshold

Command function

Check each protocol speed limit

Command format

show l2protocol-tunnel drop-threshold

Parameter Description

None

46.6. show l2protocol-tunnel tunnel-mac

Command function

View the mac address of the protocol

Command format

show l2protocol-tunnel drop-threshold

Parameter Description

None

47. LLDP Configuration Commands

47.1. lldp

Command Function

[no] lldp

Command for link discovery protocol functional switches

Command Format

no lldp

lldp

Parameter Declaration

/

47.2. lldp rx | tx | rxtx

Command Function

lldp [rxtx | tx | rx]

Configuration Commands Work Pattern in port mode

Command Format

lldp 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	/

47.3. llfp hello-time

Command Function

[no] llfp hello-time value

Command configuration (delete) HELLO time

Command Format

llfp hello-time 5

no llfp hello-time

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>value</i>	Link discovery protocol HELLO time: (second)	5-32768

47.4. llfp hold-times

Command Function

[no] llfp hold-times value

Command configuration (delete) timeout times

Command Format

llfp hold-times 5

no llfp hold-times

Parameter Declaration

Parameter	Parameter Declaration	Values
<i>value</i>	Link discovery protocol timeout times	2-10

47.5. llfp trap

Command Function

llfp trap enable|disable

Command enable lldp trap or disable lldp trap

Command Format

lldp trap enable
lldp trap disable

Parameter Declaration

none

47.6. lldp management-address

Command Function

[no] lldp management-address [supervlan-interface *value1* | vlan-interface *value2*]

Command configuration LLDP (delete) management address in port mode

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

47.7. show lldp

Command Function

show lldp [ethernet *port-id*]

Command view link discovery configuration information display

Command Format

show lldp 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

48. UDLD Configuration Command

48.1. udld

Command Function

[no] udld

Command for unidirectional link detection functional switch

Command Format

no udld

udld

Parameter Declaration

/

48.2. udld error-down

Command Function

[no] udld error-down [recover | recover-time *times*]

command for configuring (delete) one-way link detection error status processing

Command Format

udld error-down recover-time 30

no udld 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

48.3. udld message-interval

Command Function

udld 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

48.4. udld reset

Command Function

udld reset

Command to reset one-way link detection in port or global mode

Command Format

udld reset

Parameter Declaration

/

48.5. 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**

/

48.6. udld unidirectional-shutdown**Command Function****udld 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**udld unidirectional-shutdown auto****Parameter Declaration**

Parameter	Parameter Declaration	Values
auto	Automatic closing the port	/

manual	Manually closing the port	/
--------	---------------------------	---

48.7. udld work-mode

Command Function

udld work-mode [aggressive| normal]

Command configures one-way link detection mode in port mode, default to normal mode.

Command Format

udld 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	/

48.8. show udld

Command Function

show udld [ethernet port-id]

command to view unidirectional link detection configuration information display

Command Format

show udld 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
---------	-------------	--

49. Managing IP restricted configuration commands

49.1. login-access-list

Command Function

Configure the network addresses that the protocols allow to access

Command Format

```
login-access-list <snmp|ssh|telnet|web> <ip-address> <wildcard>
no login-access-list <all|snmp|ssh|telnet|web> <ip-address>
<wildcard>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
ip-address	Access network	
wildcard	Network inverse mask	

49.2. login-access-list privilege-limit

Command Function

Configure Max privilege manage users

Command Format

```
login-access-list privilege-limit <num>
no login-access-list privilege-limit
```

Parameter Declaration

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

	Parameter Declaration	
num		0-5

49.3. show login-access-list

Command Function

View the restricted state of the run

Command Format

show login-access-list

Parameter Declaration

/

50. Managing timeout configuration command

50.1. 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

51. SSH configuration command

51.1. ssh

Command Function

Functional switch

Command Format

ssh

no ssh

Parameter Declaration

/

51.2. 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

51.3. ssh port

Command Function

Configuring SSH port number

Command Format

ssh port <num>

no ssh

Parameter Declaration

Parameter	Parameter	Values

	Declaration	
num	Port number	1024–65535

51.4. stop vty

Command Function

Mandatory vty 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	

51.5. crypto key zeroize rsa

Command Function

Privileged pattern deleting key

Command Format

crypto key zeroize rsa

Parameter Declaration

/

51.6. crypto key refresh

Command Function

Privileged mode activation key

Command Format

crypto key refresh

Parameter Declaration

/

51.7. crypto key generate rsa

Command Function

The privileged mode configures the default key

Command Format

crypto key generate rsa

Parameter Declaration

/

51.8. 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	

51.9. 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	

51.10. show keyfile**Command Function**

View key

Command Format

```
show keyfile <private|public>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
private	private key	
public	public key	

52. Telnet-Client Configuration command

52.1. 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	

53. Telnet-Server/Telnetv6- ServerConfiguration Command

53.1. telnet enable

Command Function
Enabling function

Command Format
telnet enable

Parameter Declaration

/

53.2. telnet disable

Command Function
Delete Enabling function

Command Format
telnet disable

Parameter Declaration

/

53.3. 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

53.4. telnet port

Command Function

Configure the service port number

Command Format

```
telnet port <num>
no telnet port
```

Parameter Declaration

Parameter	Parameter Declaration	Values
num		1024–65535

53.5. 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	User id	

53.6. show telnet client

Command Function

View online users

Command Format

```
show telnet client
```

Parameter Declaration

/

53.7. show telnet

Command Function

Look at the telnet service running state

Command Format

show telnet

Parameter Declaration

/

54. Web Management configuration command

54.1. http enable

Command Function

Enabling function

Command Format

http enable[port <num>]

Parameter Declaration

Parameter	Parameter Declaration	Values
num		1024–65535

54.2. http disable

Command Function

Delete Enabling function

Command Format

http disable

Parameter Declaration

/

54.3. http timeout**Command Function**

Configure the HTTP timeout

Command Format**http timeout <time>****Parameter Declaration**

Parameter	Parameter Declaration	Values
<i>time</i>	unit: second, default: 1200s	60–36000

54.4. show http**Command Function**

Look at the HTTP service running state

Command Format**show http****Parameter Declaration**

/

55. SNMP Management configuration command

55.1. snmp-server enable

Command Function
Enabling function

Command Format
snmp-server enable

Parameter Declaration

/

55.2. snmp-server disable

Command Function
Delete Enabling function

Command Format
snmp-server disable

Parameter Declaration

/

55.3. snmp-server contact

Command Function
Configuration system contact

Command Format
snmp-server contact <text>
no snmp-server contact

Parameter Declaration

Parameter	Parameter Declaration	Values
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text		STRING<1-255>

55.4. 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>

55.5. 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>

55.6. snmp-server max-packet-length

Command Function

Configuration max-packet-length

Command Format

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

Parameter Declaration

Parameter	Parameter Declaration	Values
len		484-8000

55.7. 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	Supervlana number	1-128
lo-id	Ring back id	0-1

55.8. 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	

55.9. snmp-server view

Command Function

Configuration attempt

Command Format

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

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	
incline	Only configuration oid	

55.10. 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	

55.11. 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

55.12. 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<1-64>
rw	read-write	
view-name	View name	
index	The serial number of a group	1-8

55.13. 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	

55.14. 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>|encrypt-authpassword
encrypt-authpassword ]][ auth-key
<authkey> |encrypt-authkey encrypt-
authkey ]][ priv des [priv-password priv-
password | encrypt-privpassword encrypt-
privpassword ][priv-key Priv-key |encrypt-
privkey encrypt-privkey ]]
```

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

Parameter Declaration

Parameter	Parameter Declaration	Values
groupname	Group name	STRING<1-32>
username	User name	STRING<1-32>
ip-address	Remote address	32 bit binary number in format of X:X:X:X
port-num	UDP port number	1-65535
auth	Authentication	
md5	MD5 encryption	
sha	Sha encryption	
authpassword	Auth password	STRING<1-32>
encrypt- authpassword	Encrypt auth password	STRING<48-48>
authkey	Auth key	STRING<40-40>
encrypt-authkey	Encrypt auth key	STRING<48-48>
priv-password	Priv password	STRING<1-32>
encrypt- privpassword	Encrypt priv password	STRING<32-32>
Priv-key	Priv key	STRING<32-32>
encrypt-privkey	Encrypt priv key	STRING<32-32>

55.15. snmp-server enable <traps|informs>

Command Function

Enabling function traps/informs

Command Format

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

55.16. 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	

55.17. show snmp-server community

Command Function

View community massage

Command Format

show snmp-server community

Parameter Declaration

/

55.18. show snmp-server contact

Command Function

View contact massage

Command Format

show snmp-server contact

Parameter Declaration

/

55.19. show snmp-server engineid

Command Function

View engineid message

Command Format

show snmp-server engineid <local|remote> <text>

Parameter Declaration

Parameter	Parameter Declaration	Values
text		STRING<1-24>

55.20. show snmp-server group

Command Function

View Group message

Command Format

show snmp-server group <groupname>

Parameter Declaration

Parameter	Parameter Declaration	Values
groupname		STRING<1-32>

55.21. show snmp-server host

Command Function

View the notification information host

Command Format

show snmp-server host

Parameter Declaration

/

55.22. show snmp-server location

Command Function

View location message

Command Format

show snmp-server location

Parameter Declaration

/

55.23. show snmp-server max-packet-length

Command Function

View the maximum length of a message

Command Format

show snmp-server max-packet-length

Parameter Declaration

/

55.24. show snmp-server mib

Command Function

View mib message

Command Format

show snmp-server mib

Parameter Declaration

/

55.25. show snmp-server name

Command Function

View snmp name

Command Format

show snmp-server name

Parameter Declaration

/

55.26. show snmp-server notify**Command Function**

View notify

Command Format**show snmp-server notify****Parameter Declaration**

/

55.27. show snmp-server user**Command Function**

View v3 User message

Command Format**show snmp-server user <user-name>****Parameter Declaration**

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

55.28. show snmp-server view**Command Function**

View the view corresponding to oid

Command Format**show snmp-server view****Parameter Declaration**

/

56. User management configuration

command

56.1. username <>

Command Function

Creating a user

Command Format

```
username <name> privilege <privilege> password <0|7> <pass>
no username
```

Parameter Declaration

Parameter	Parameter Declaration	Values
name	User name	STRING<1-32>
privilege	privilege	0-15
pass		STRING<1-32>

56.2. username change-password

Command Function

Modify the password

Command Format

```
username change-password
```

Parameter Declaration

/

56.3. 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

56.4. 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 online-max <name>
```

Parameter Declaration

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

56.5. 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	Values

	Declaration	
min		2-1440min

56.6. stop <>

Command Function

Privileged mode force user Downline

Command Format

stop <*name*>

Parameter Declaration

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

56.7. show users

Command Function

View online users

Command Format

show users

Parameter Declaration

/

56.8. show username silent

Command Function

View silent users

Command Format

show username silent

Parameter Declaration

/

56.9. show username

Command Function

View user information

Command Format

show username <name>

Parameter Declaration

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

57. Auto-Reboot Configuration command

57.1. 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	

58. System debug configuration command

58.1. 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	

58.2. ping ipv6

Command Function

Check whether the IPv6 host is reachable

Command Format

```
ping ipv6 [-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	X:X::X:X
timeout	timeout	1-60s
host-ipv6	Destination host ipv6	X:X::X:X or X:X::X:X%ifname

58.3. tracert

Command Function

The path that has been detected by the destination host

Command Format

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

Parameter Declaration

Parameter	Parameter Declaration	Values
ttl	Hopping number	1-255
ttl	First ttl	1-255
Sourceip	Source ip	32 bit binary number in format of X:X:X:X
-c	Icmp mode	
-u	Udp mode	
timeout	timeout	1-60s
host-ip	Destination host ip	32 bit binary number in format of X:X:X:X

58.4. tracert ipv6

Command Function

The path that has been detected by the IPv6 destination host

Command Format

```
tracert ipv6 [-c num][-h hop] [-w timeout] <host-ipv6>
```

Parameter Declaration

Parameter	Parameter Declaration	Values
num	Set number of probes per hop limit	1-65535
hop	Hopping number	1-255
timeout	timeout	1-60s
host-ipv6	Destination host ipv6	

59. System information configuration and display command

59.1. show version

Command Function
View version information

Command Format
show version

Parameter Declaration
/

59.2. show system

Command Function
View the system information

Command Format
show system

Parameter Declaration
/

59.3. show memory

Command Function
View memory information

Command Format
show memory

Parameter Declaration
/

59.4. show clock

Command Function
View the current time

Command Format

show clock

Parameter Declaration

/

59.5. hostname

Command Function

Configure the host name

Command Format

hostname <name>

Parameter Declaration

Parameter	Parameter Declaration	Values
name	Host name	STRING<1-128>

60. Bootrom Configuration command

60.1. Ctrl-B

Command Function

When restarting, press Ctrl and B keys to enter bootrom mode

Command Format

Press Ctrl-B to enter Boot Menu... 3

Main Menu

- 1. Running OS image from Flash**
- 2. Running secondary OS image file**
- 3. Advanced menu**
- 4. Download via serial**
- 5. Display the boot configuration**
- 6. Set the factory-default license**
- 7. Set the factory-default MAC address**
- 8. Set the product serial number**

Please enter your choice :

Parameter Declaration

/

61. Telnetv6-Client Configuration command

61.1. telnet6 <ipv6>

Command Function

Access to other devices as clients in privileged mode

Command Format

telnet <ipv6> [tcp-port]

Parameter Declaration

Parameter	Parameter Declaration	Values
ip	ip address	X:X::X:X or X:X::X:X%ifname
tcp-port	Port number	1-65535

62. EFM Configuration command

62.1. efm

Command function

(no)efm

Command to configure the switch in port mode and disable by default

Command format

efm

Parameter Description

None

62.2. 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

62.3. 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

62.4. 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

value	efm link-timeout (second),the default value is 5s	3-300
--------------	---	-------

62.5. 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
value		1-10

62.6. 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

62.7. 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

62.8. 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

62.9. efm link-monitor errored-symbol-period threshold

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	0-4294967295

	event parameters (4 bytes high)	
<i>th-value2</i>	Configure error symbol duration event parameters (4 bytes low)	0-4294967295

62.10. 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

62.11. 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

62.12. 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

62.13. 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.	1-4294967295

	(Number of error frames)	
--	--------------------------	--

62.14. 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

62.15. 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
<i>th-value</i>	Configure efm link-monitor errored-frame-seconds threshold(error seconds)	1-900

62.16. 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

62.17. 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

62.18. 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

62.19. 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

62.20. 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

62.21. show efm port

Command function

**show efm port *port-id-list* remote-mib [phyadminstate |
autonegadminsta
te]**

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

62.22. 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

62.23. 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

62.24. show efm summary

Command function

show efm summary

Command to show EFM profile information

Command format

show efm summary

Parameter Description

None

62.25. 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

62.26. 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

62.27. 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

63. CFM Configuration command

63.1. 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

63.2. 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

63.3. 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

63.4. 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

63.5. 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

63.6. 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

63.7. cfm ma format

Command function

```
cfm ma format [ primary-vid name vlan-name | string name string |
    uint16
    name uint16-name | vpn-id name 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

63.8. cfm mep <id> direction

Command function

```
cfm mep mep-id direction [ up | down ] primary-vlan vlan-id
    interface
```

[**ether***net port-id* | **eth-trunk** *trunk-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
<i>trunk-id</i>	trunk id	1-31

63.9. cfm mep <id> state

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

63.10. cfm mep <id> priority

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

63.11. cfm rmep

Command function

(no)cfm rmep *rmepld* *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>rmepl-id</i>	RMEP id	1-8191
<i>mep-id</i>	MEP id	1-8191

63.12. cfm mip

Command function

(no)cfm mip *mip-id* interface [ethernet *port-id*] eth-trunk *trunk-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
<i>trunk-id</i>	trunk id	1-31

63.13. 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

63.14. 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

63.15. cfm loopback mep

Command function

cfm loopback mep *mep-id* [dst-mac *mac-address* | dst-mep *rmeplid*]

[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>rmeplid</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

63.16. cfm linktrace mep

Command function

cfm linktrace mep *mep-id* [dst-mac *mac-address* | dst-mep *rmeplid*] [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 1 timeout 3 ttl 1 flag unuse-mpdb

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>rmepl-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

63.17. cfm eth-slm mep

Command function

```
cfm eth-slm mep mep-id [ dst-mac mac-address | dst-mep rmepl-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>rmepl-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 (seconds)	1-30
<i>pkt-num</i>	Number of messages	1-1024

63.18. cfm eth-2dm mep

Command function

```
cfm eth-2dm mep mep-id [ dst-mac mac-address | dst-mep rmepl-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>rmepld</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

63.19. clear cfm cc

Command function

```
clear cfm cc
```

Command clears CCM statistics information

Command format

```
clear cfm cc
```

Parameter Description

None

63.20. 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

63.21. 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

63.22. show cfm ma

Command function

show cfm ma

Command format

show cfm ma

Parameter Description

None

63.23. 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

63.24. 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

63.25. show cfm cc**Command function**

show cfm cc

Command to show CCM statistics information

Command format

show cfm cc

Parameter Description

None

63.26. 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

63.27. show cfm errors**Command function**

show cfm errors

Command to show CFM alarm information

Command format

show cfm errors

Parameter Description

None

64. POE Power supply configuration command

64.1. poe

Command function

(no) poe

Command to configure the POE switch in port mode

Command format

poe

no poe

Parameter Description

None

64.2. 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
value	Power of Switch(Unit:W)	1-400

64.3. 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

64.4. 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

64.5. 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

64.6. poe status poll

Command function

(no) poe status poll

Command to open (close) Poll port status

Command format

poe status poll

no poe status poll

Parameter Description

None

64.7. poe traps**Command function****poe traps <value>**

Poe trap reporting threshold configuration

Command format**poe traps 50****no poe traps****Parameter Description**

Parameter	Parameter description	Value range
value	Power consumption percent	1-99

64.8. poe force power on**Command function****(no) poe force power on**

Open (close) forced power supply under command port

Command format**poe force power on****no poe force power on****Parameter Description**

None

64.9. show poe**Command function****show poe [interface [ethernet]]**

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
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64.10. show poe auto-check

Command function

show poe auto-check [ethernet *port-id*]

Command to display POE auto-check information of port or device

Command format

show poe auto-check 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

64.11. show poe power-on time-range

Command function

show poe power-on time-range [ethernet *port-id*]

Command to display POE power-on information of port or device

Command format

show poe power-on time-range 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

65. Statistics configuration command

65.1. 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

65.2. 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

65.3. clear cpu-statistics

Command function

clear cpu-statistics

command to clear CPU port statistics

Command format

clear cpu-statistics

Parameter description

None

65.4. clear cpu-classification

Command function

clear cpu-statistics [interface ethernet *port-id*]

command to clear CPU port classification statistics

Command format

clear cpu-statistics

clear 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

65.5. 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

65.6. show statistics interface brief

Command function

show statistics interface brief [ethernet port-id]

command to view all port statistics

Command format

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

65.7. 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

65.8. 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

65.9. 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

65.10. show cpu-utilization

Command function

```
show cpu-utilization  
Command to view switch CPU utilization
```

Command format

```
show cpu-utilization
```

Parameter description

None

65.11. 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

65.12. show cpu-classification

Command function

show cpu-classification [interface ethernet *port-id*]

Command to view CPU port classification statistics

Command format

show cpu-classification

show cpu-classification interface ethernet

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

65.13. 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
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66. Port loopback detection configuration command

66.1. 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

66.2. loopback-detection action

Command function

loopback-detection action [discarding | shutdown|none]

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
none	Just send log and trap	

66.3. 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

66.4. 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

66.5. loopback-detection recover-time

Command function

loopback-detection recover-time [0|*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: 60 seconds, 0 means manual recovery)	10–600

66.6. loopback-detection address-type

Command function

loopback-detection address-type [broadcast|multicast]

Command configure LBD packet's destination MAC is broadcast or multicast

Command format

loopback-detection address-type broadcast

loopback-detection address-type multicast

Parameter description

none

66.7. oopback-detection log

Command function

loopback-detection log [enable|disable]

Command configure enable or disable Log notification

Command format

loopback-detection log enable

Parameter description

None

66.8. loopback-detection mode

Command function

loopback-detection mode [port-based|vlan-based]

Command configure loopback-detection mode is port or vlan

Command format

loopback-detection mode port-based

Parameter description

None

66.9. loopback-detection trap**Command function****loopback-detection trap [enable|disable]**

Command to configure whether trap messages when a loop occurs or recover

Command format

loopback-detection trap enable

Parameter description

None

66.10. loopback-detection vlan**Command function****loopback-detection vlan *vlan-id***

Command to configure which vlans to enable loopback-detection

Command format

loopback-detection vlan 10

Parameter description

Parameter	Parameter description	Value
vlan-id	Vlan id	STRING<1-128>

66.11. 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

67. VCT detection configuration command

67.1. vct run

Command function

vct run

Command to perform vct detection under the global or port

Command format

vct run

Parameter description

none

68. Port configuration commands

68.1. 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

68.2. 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

68.3. speed

Command function

```
(no) speed [100| 1000|10000|auto]
```

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

The default is auto

Command format

```
speed 1000
no speed
```

Parameter description

Parameter	Parameter description	Value
100	100M	None
1000	1000M	None
10000	10G	None
auto	Auto negotiation	None

68.4. 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

68.5. shutdown

Command function

(no) shutdown

The command is used to linkdown port or linkup port in port mode

Command format

(no) shutdown

Parameter description

None

68.6. 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	STRING<1-128>

68.7. switchport**Command function**

(no) switchport [ethernet *port-id|all*]

Command to add or delete ports in vlan mode

Command format

(no) switchport ethernet 0/0/1

Parameter description

Parameter	Parameter description	Value
port-id	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

68.8. 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

68.9. 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

68.10. ingress acceptable-frame

Command function

(no)ingress acceptable-frame [tagged|untagged|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
untagged	Only receive untagged packets	none
all	All message are received	None

68.11. 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

68.12. 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

68.13. 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

68.14. 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

68.15. 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

68.16. 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

68.17. show interface brief vlan-intf 1

Command function

```
show interface brief vlan-intf vlan-id
command to view VLAN interface information
```

Command format

```
show interface brief vlan-intf 1
```

Parameter description

Parameter	Parameter description	Value
vlan-id	Vlan id	STRING<1-128>

68.18. 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

68.19. 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

69. DDM detection

69.1. 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

70. Flow control

70.1. 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

70.2. 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

71. Storm-Control Configuration Command

71.1. 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

71.2. 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

71.3. 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

71.4. 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

72. isolate-port command

Configuration

72.1. no isolate-port uplink

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

72.2. 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

72.3. show isolate-port

Command function

show isolate-port

Command to view configured isolation ports

Command format

show isolate-port

Parameter Description

None

73. Port-security Configuration command

73.1. port-security enable|disable

Command function

port-security [enable|disable]

Command to configure port security

Command format

port-security enable

port-security disable

Parameter Description

None

73.2. 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 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

73.3. show port-security mac-address

Command function

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

Command to view the MAC rule configuration

Command format

show port-security mac-address 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

73.4. 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

73.5. 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

73.6. 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

73.7. 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

73.8. 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

73.9. 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

73.10. 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

73.11. show port-security active-address

Command function

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

Command to view the activation table entries sent down

Command format

show port-security active-address 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

73.12. 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

73.13. 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

73.14. port-security aging time

Command function

[no]port-security aging time *time*

Value command to configure (delete) port address aging time

Command format

port-security aging time 3

Command format

Parameter	Parameter Description	Value range
time	Aging time	1-1440

73.15. 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

73.16. 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

73.17. 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
value	Automatic recovery time value (minutes)	1-3660

73.18. show port-security recovery**Command function**

show port-security recovery [ethernet port-id]

Command to view the configuration for automatic recovery after

shutdown

Command format

show port-security recovery 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

73.19. port-security violation log-interval

Command function

[no]port-security violation log-interval value

Command to configure (delete) the value of the processing time interval between receiving illegal messages and violating the log

Command format

port-security violation log-interval 20

Parameter Description

Parameter	Parameter Description	Value range
<i>value</i>	Log interval time	0-86400

74. PPPoE+ Configuration command

74.1. pppoelplus

Command function

[no] pppoelplus

Command switches in port mode

Command format

pppoelplus

Parameter Description

None

74.2. pppoelplus trust

Command function

[no] pppoelplus trust

Command to configure (delete) the uplink port as a trusted port in port mode

Command format

```
ppoeplus trust
```

Parameter Description

None

74.3. show pppoelplus interface

Command function

```
show pppoelplus interface [ethernet port-id]
```

Command to configure Information View

Command format

```
show pppoelplus 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

74.4. pppoelplus strategy

Command function

```
[no] pppoelplus strategy [ drop | keep | replace ]
```

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

Command format

```
ppoeplus 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

74.5. pppoelplus drop

Command function

[no] pppoelplus drop [padi | pad]

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

Command format

ppoeplus drop padi

Parameter Description

Command	Parameter Description	Value range
padi	Discard PADI and PADR messages	None
pad	Discard PAD and PADS messages	None

74.6. pppoelplus type

Command function

[no] pppoelplus 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 configuration (change) message type

Command format

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

Parameter Description

Command	Parameter Description	Value range
circuit-string	Define alphabetic string	1--63 characters
remote-string	Define alphabetic string	1--63 characters

74.7. pppoelplus format

Command function

[no] pppoelplus format [binary | ascii]

Command to configure (Modify) format

Command format

ppoeplus format binary**Parameter Description**

Command	Parameter Description	Value range
ascii	Use ascii code format	None
binary	Use binary format	None

74.8. ppoeplus delimiter**Command function**

[no] **ppoeplus delimiter** [colon | dot | pound | slash | space]

Command to configure (modify) joint mark

Command format

ppoeplus delimiter colon

Parameter Description

Command	Parameter Description	Value range
colon	:	None
dot	.	None
pound	#	None
slash	/	None
space		None

74.9. ppoeplus circuit-id**Command function**

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

Command configuration (modify) virtual circuit ID in port mode

Command format

ppoeplus circuit-id string

Parameter Description

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

75. IP-Source Configuration command

75.1. 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

75.2. show ip source

Command function

show ip source

Command to configure Information View

Command format

show ip source

Parameter Description

None

75.3. ip source binding

Command function

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

Command to configure (delete) bound table items

Command format

ip source binding 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

75.4. show ip source binding

Command function

show ip source binding [*ip-address*]

Command to configure (delete) bound table items

Command format

show ip source binding 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

75.5. 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	STRING<1-128>

75.6. show ip source vlan

Command function

show ip source vlan

Command to view configuration information

Command format**show ip source vlan****Parameter Description**

None

75.7. 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

75.8. 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

76. IPv6-Source Configuration Command

76.1. 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

76.2. 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

76.3. 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: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

76.4. 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	Value range
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	Description	
<i>ipv6-address</i>	Configurable valid ipv6 address	128-digit binary in the form of X: X: X: X: X: X: X: X format

76.5. **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

76.6. **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

77. **802.1X Configuration command**

77.1. **dot1x**

Command function

dot1x enable|disable

Command to enable or disable global 802.1x in global mode

Command format

dot1x enable

Parameter Description

none

77.2. dot1x eap-relay enable|disable

Command function

dot1x eap-relay enable|disable

Command sets the protocol interaction between the system and the RADIUS server in global mode

Command format

dot1x eap-relay enable

Parameter Description

Command	Parameter Description	Value range
disable	disable	none
enable	enable	none

77.3. dot1x port-method

Command function

dot1x port-method [macbased | portbased]

Command to enable port 802.1X authentication in port mode

Command format

dot1x port-method portbased

Parameter Description

none

77.4. dot1x port-control

Command function

[no]dot1x port-control [auto | forceauthorized | forceunauthorized]

Command to set (delete) port control mode in port mode

Command format

dot1x port-control auto

Parameter Description

none

77.5. dot1x re-authenticate

Command function

dot1x re-authenticate

The command is configured in port mode to reauthenticate immediately

Command format

dot1x re-authenticate

Parameter Description

none

77.6. dot1x re-authentication

Command function

[no]dot1x re-authentication

Command to open (close) port periodic reauthentication in port mode

Command format

dot1x re-authentication

Parameter Description

none

77.7. dot1x timeout re-authperiod

Command function

[no]dot1x timeout re-authperiod *time*

Command to configure (delete) port periodic reauthentication time in port mode

Command format

```
dot1x timeout re-authperiod 10
```

Parameter Description

Command	Parameter Description	Value range
<i>time</i>	Reauthention time	10-3600

77.8. dot1x multicast-trigger**Command function**

```
[no]dot1x multicast-trigger ]
```

Command to turn the Multicast trigger function on (off) in port mode

Command format

```
dot1x multicast-trigger
```

Parameter Description

none

77.9. dot1x multicast-period**Command function**

```
[no]dot1x multicast-period <time>
```

Command to open (restore) multicast-period interval in port mode

Command format

```
dot1x multicast-period 30
```

Parameter Description

Command	Parameter Description	Value range
<i>time</i>	Multicat period interval,unit is second;default is 60s	10-600

77.10. **dot1x max-user-num**

Command function

[no]dot1x max-user-num *user-num*

The command opens (removes) in port mode to allow the maximum number of authenticated users

Command format

dot1x max-user-num 1

Parameter Description

Command	Parameter Description	Value range
<i>user-num</i>	User number	1-100

77.11. **dot1x user cut**

Command function

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

The command deletes the specified online user

Command format

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

Parameter Description

Command	Parameter Description	Value range
<i>user-name</i>	Delete user name	1-32 chars
<i>mac-addres</i>	Mac address	48 bit binary number in format of X:X:X:X:X:X

77.12. **dot1x keepalive**

Command function

[no]dot1x keepalive

Command to turn on (off) heartbeat detection in port mode

Command format

dot1x keepalive**Parameter Description**

none

77.13. dot1x keepalive period**Command function****[no]dot1x keepalive period *time***

Command to configure (restore) heartbeat detection time in global mode

Command format**dot1x keepalive period 2****Parameter Description**

Command	Parameter Description	Value range
<i>time</i>	Unit is second,default is 25s	1-3600

77.14. dot1x timeout quiet-period**Command function****[no]dot1x timeout quiet-period *time***

Command to configure (restore) the silence time in global mode

Command format**dot1x timeout quiet-period 2****Parameter Description**

Command	Parameter Description	Value range
<i>time</i>	Unit is second,default is 0s	0-600

77.15. dot1x timeout server-timeout**Command function**

[no]dot1x timeout server-timeout *time*

Command to configure (restore) the server timeout in global mode

Command format

dot1x timeout server-timeout 20

Parameter Description

Command	Parameter Description	Value range
<i>time</i>	Unit is second,default is 30s	15-3600

77.16. dot1x **timeout supp-timeout**

Command function

[no]dot1x timeout supp-timeout *time*

Command to configure (restore) client timeout in global mode

Command format

dot1x timeout supp-timeout 20

Parameter Description

Command	Parameter Description	Value range
<i>time</i>	Unit is second,default is 30s	15-3600

77.17. dot1x **portbased host-mode**

Command function

[no]dot1x portbased host-mode [multi-hosts | single-host]

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

Command format

dot1x portbased host-mode single-host

Parameter Description

none

77.18. dot1x guest-vlan

Command function

[no]dot1x guest-vlan <vlan-id>

Command to configure (delete) the guest VLAN to configure the port in port mode

Command format

dot1x guest-vlan 10

Parameter Description

Command	Parameter Description	Value range
<i>vlan-id</i>	VLAN ID	1-4094

77.19. dot1x guest-acl

Command function

[no]dot1x guest-acl <number>

Command to configure (delete) the guest ACL to configure the port in port mode

Command format

dot1x guest-acl 10

Parameter Description

Command	Parameter Description	Value range
<i>number</i>	acl number	STRING<1-64>

77.20. dot1x max-authfail

Command function

[no]dot1x max-authfail <times>

Command to configure (delete) number of authentication failures in port mode

Command format

dot1x max-authfail 10

Parameter Description

Command	Parameter Description	Value range
<i>times</i>	Max authfail times	1-10

77.21. dot1x default-active-vlan

Command function

[no]dot1x default-active-vlan <vlan-id>

The command is configured (deleted) in port mode, default-active-VLAN is the Default active VLAN, used when 802.1x user passes authentication on the Radius server, but no Radius VLAN is issued, at this time the user can only access the resources in default-active-VLAN.

Command format

dot1x default-active-vlan 10

Parameter Description

Command	Parameter Description	Value range
<i>vlan-id</i>	VLAN ID	1-4094

77.22. dot1x eapol-relay

Command function

[no]dot1x eapol-relay

Command to configure enable or disable EAPOL messaging in port mode

Command format

dot1x eapol-relay

Parameter Description

none

77.23. dot1x eapol-relay uplink

Command function

[no]dot1x eapol-relay uplink

Command to configure (remove) the uplink port function for EAPOL messaging in port mode

Command format

dot1x eapol-relay uplink

Parameter Description

none

77.24. dot1x max-req

Command function

[no]dot1x max-req <timers>

Command configuration (restore) The number of times the client resend the request EAP-Request/Identity message when it responds to the EAP-Response/Identity message

Command format

dot1x max-req 2

Parameter Description

Command	Parameter Description	Value range
<i>timers</i>	Max send message times	1-10

77.25. dot1x max-reauth

Command function

[no]dot1x max-reauth <timers>

Command configuration (restore) The number of times the client

resends the request EP-Request/MD5 Challenge message when it responds to THE EP-Response/MD5 Challenge message

Command format

dot1x max-reauth 2

Parameter Description

Command	Parameter Description	Value range
<i>timers</i>	Max send times	1-10

77.26. dot1x critical-vlan

Command function

[no]dot1x critical-vlan <vlan-id>

Command to configure (delete) this VLAN feature in port mode when authentication fails due to server unreachable

Command format

dot1x critical-vlan 10

Parameter Description

Command	Parameter Description	Value range
<i>vlan-id</i>	VLAN ID	1-4094

77.27. dot1x radius-acl-format

Command function

dot1x radius-acl-format string|integer

The command configure radius acl format type

Command format

dot1x radius-acl-format string

Parameter Description

none

77.28. dot1x native-vlan-free

Command function

[no]dot1x native-vlan-free

The command turns on and off in port mode to allow unauthenticated users to communicate within the PVID's VLAN

Command format

dot1x native-vlan-free

Parameter Description

none

77.29. dot1x station-move

Command function

dot1x station-move enable|disable

Command to turn on and off the authentication port migration function in port mode; After enabling migration, users who have been authenticated on one port can be migrated to another port for authentication, and the authentication results on the original port will be deleted before being authenticated on the new port.

With migration disabled, a user who has been authenticated on one port cannot be migrated to another port for authentication unless the user has been offline on the original port.

Command format

dot1x station-move enable

Parameter Description

none

77.30. dot1x syslog

Command function

dot1x syslog enable|disable

Command to enable/disable failure notifications in global mode

Command format

dot1x syslog enable

Parameter Description

none

77.31. show dot1x multicast-trigger

Command function

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

The command displays the multicast-trigger of the 802.1X authenticated port

Command format

show dot1x multicast-trigger interface ethernet 0/0/1

Parameter Description

Command	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

77.32. show dot1x interface

Command function

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

Command displays switch port configuration information

Command format

show dot1x interface ethernet 0/0/1

Parameter Description

Command	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

77.33. show dot1x users

Command function

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

address}]

The command displays the 802.1x session

Command format

show dot1x users interface ethernet 0/0/1

Parameter Description

Command	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>	Mac address	48 bit binary number in format of X:X:X:X:X:X

77.34. show dot1x eapol-relay

Command function

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

Command to view the EAPOL passthrough configuration

Command format

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

Parameter Description

Command	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

77.35. show dot1x keepalive

Command function

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

The command displays the heartbeat detection function configuration

Command format

show dot1x keepalive interface ethernet 0/0/1

Parameter Description

Command	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
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77.36. **show dot1x config-vlan**

Command function

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

The command displays visitor VLAN information

Command format

show dot1x config-vlan interface ethernet 0/0/1

Parameter Description

Command	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

77.37. **show dot1x port-auth**

Command function

show dot1x port-auth

Command to see if the port is currently authenticated

Command format

show dot1x port-auth

Parameter Description

none

77.38. **show dot1x timeout**

Command function

show dot1x timeout

The command displays the silent time, client timeout, and server timeout

Command format

show dot1x timeout

Parameter Description

none

77.39. show dot1x

Command function

show dot1x

Command to see if the authentication system is on and the authentication type

Command format

show dot1x

Parameter Description

None

77.40. show dot1x guest-acl

Command function

show dot1x guest-acl

Command to view guest acl information

Command format

show dot1x guest-acl

Parameter Description

none

77.41. show dot1x radius-acl

Command function

show dot1x radius-acl

Command to view radius acl information

Command format

show dot1x radius-acl

Parameter Description

none

78. Radius Configuration command

78.1. 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

78.2. 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

78.3. 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

78.4. 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

78.5. 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

78.6. 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>keystring</i>	shared key	1-16 character

78.7. acct-secret-key

Command function

[no]acct-secret-key *keystring*

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

Command format

acct-secret-key *keystring*

Parameter Description

Parameter	Parameter Description	Value range
<i>keystring</i>	shared key	1-16 Charater

78.8. 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

78.9. 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
with-domain	User name with domain name	None
without-domain	User name without domain name	None

78.10. realtime-account

Command function

[no]realtime-account

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

Command format

realtime-account

Parameter Description

None

78.11. 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

78.12. 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 unpreemption)	0-1440

78.13. local-user username

Command function

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

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

Command format

local-user username *username*password *pass* vlan 1

Parameter Description

Parameter	Parameter Description	Value range
<i>name</i>	Local user name	1-64 characters, any character available
<i>pwd</i>	Local user password	1-64 characters, any character available
<i>Encrypt-pwd</i>	Local user encrypt password	STRING<2-130>
<i>vid</i>	VLAN id	1-4094

78.14. 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	Value range

	Description	
<i>domain-name</i>	Default domain name	1-24 Character

78.15. domain

Command function

[no]ldomain *domain-name*

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

Command format

domain *domain1*

Parameter Description

Parameter	Parameter Description	Value range
<i>domain-name</i>	domain name	1-24 Charcter

78.16. scheme

Command function

scheme [local | radius [none]]

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

Command format

scheme local

Parameter Description

None

78.17. 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

78.18. 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
<i>number</i>	Number of connections allowed in the domain	1-640

78.19. state

Command function

state [active | block]

The command activates (blocks) the current domain in domain mode

Command format

state active

Parameter Description

None

78.20. 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

78.21. 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

78.22. radius accounting

Command function

[no]radius accounting

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

Command format

radius accounting

Parameter Description

None

78.23. 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

78.24. radius 8021p

Command function

radius 8021p enable | disable

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

Command format

radius 8021p enable

Parameter Description

None

78.25. radius password-encryption

Command function**[no]radius password-encryption**

Command to enable (delete) Encryption the secret key and the radius local password

Command format**radius password-encryption****Parameter Description****None**

78.26. radius vlan enable

Command function**radius vlan enable|disable**

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

Command format**radius vlan enable****Parameter Description****None**

78.27. radius vlan-format

Command function**radius vlan-format[integer |string2decimal|string2hex|vlanname]**

Command to configure vlan format type in AAA mode.

Command format**radius vlan-format integer****Parameter Description****none**

78.28. radius mac-address-number

Command function**[no]radius mac-address-number enable|disable**

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

78.29. radius config-attribute

Command function

Modify the radius property number in AAA Mode

Command format

radius config-attribute access-bandwidth[[downlink vendor-type][[unit bps|kbps][[uplink vendor-type]]]

Parameter Description

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

78.30. 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

78.31. dnrate-value

Command function

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

Command format

dnrate-value <value>

Parameter Description

Parameter	Parameter Description	Value range
<i>value</i>	Default is 5	1-32

78.32. 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	Default is 2	1-32

78.33. radius bandwidth-limit

Command function

[no]radius bandwidth-limit enable|disable

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

Command format

Radius bandwidth-limit enable

Parameter Description

None

78.34. 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

78.35. 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

78.36. 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

78.37. show rate-attribute-value**Command function**

View the rate property run information

Command format**show rate-attribute-value****Parameter Description**

None

78.38. show domain**Command function****show domain [domain-name]**

Command to view domain configuration.

Command format**show domain****Parameter Description**

Parameter	Parameter Description	Value range
<i>domain-name</i>	RadiusServer domain name	STRING<1-24>

79. Pvlan Configuration command

79.1. 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

79.2. 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

79.3. 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

79.4. 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

79.5. switchport private-vlan**Command function**

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

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

79.6. show private-vlan**Command function**

show private-vlan[vlan-id]

Command format

show private-vlan

Parameter Description

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

79.7. 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.

80. Muser Configuration command

80.1. muser local

Command function

muser local

Command to configure use muser local.

Command format

muser local

Parameter Description

None

80.2. 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
<i>radius-name</i>	Radius server name	STRING<1-32>

80.3. aaa

Command function

aaa

Command to enter AAA configuration mode.

Command format

aaa

Parameter Description

None

80.4. 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

80.5. show muser

Command function

show muser

Command format

show muser

Parameter Description

None

80.6. tacacs+ encrypt-key

Command function

[no] tacacs+ encrypt-key

Command password encryption display function

Command format

tacacs+ encrypt-key

Parameter Description

None

80.7. tacacs+ authentication-type

Command function

tacacs+ authentication-type [ascii | chap | pap]

Command configuration authentication type

Command format

tacacs+ authentication-type chap

Parameter Description

None

80.8. 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

80.9. 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	Tacacsauthentica tion 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

80.10. 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

80.11. show tacacs+

Command function

```
show tacacs+
```

Command format

```
show tacacs+
```

Parameter Description

None

81. Cpu-Alarm Command Manual

81.1. alarm cpu

Command function

(no) alarm cpu

Command switch CPU alarm

Command format

alarm cpu

Parameter description

None

81.2. 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
value	Threshold (%)	0-100

81.3. show alarm cpu

Command function

show alarm cpu

command to view alarm information

Command format

show alarm cpu

Parameter description

None

82. Port-Alarm configuration manual

82.1. 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

82.2. 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

83. Syslog configuration manual

83.1. logging

Command function

(no) logging

Command switch log switch

Command format

logging

Parameter description

None

83.2. show logging

Command function

Show logging

Command to view configuration information

Command format

Show logging

Parameter description

None

83.3. logging sequence-numbers

Command function

(no)logging sequence-numbers

Command switch log sequence-numbers

Command format

logging sequence-numbers

Parameter description

None

83.4. 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

83.5. 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
monitor-num	Monitor number	0-5

83.6. logging monitor all | monitor-num level-value | none | 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

83.7. 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

83.8. 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

83.9. logging buffered

Command function

(no)logging buffered

Command switch output to buffer

Command format

logging buffered

no logging buffered

Parameter description

None

83.10. 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

83.11. show logging filter buffered

Command function

show logging filter buffered
command to view filter rules

Command format

show logging filter buffered

Parameter description

None

83.12. 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

83.13. 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
<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

83.14. 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

83.15. logging flash level-value | none | level-list

Command function

logging flash level-value | none | level-list [start-level 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-level</i>	Information level	0-7
<i>end-level</i>	Information level	0-7
<i>module-name</i>	Module name	Switch feature module

83.16. show logging filter flash

Command function

show logging filter flash

Command to view filter rules

Command format

show logging filter flash

Parameter description

None

83.17. 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

83.18. 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

83.19. 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

83.20. 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

83.21. 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

83.22. 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

83.23. 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

83.24. 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

83.25. 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

83.26. 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

83.27. 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

83.28. 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

83.29. 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

83.30. 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

83.31. 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

83.32. show debug

Command function

show debug

Command to view the configuration information of the debugging function

Command format

show debug

Parameter description

None

84. STP/RSTP configuration command

84.1. stp

Command function

Global or physical interface enables stp

Command format

stp

no stp

Parameter description

None

84.2. stp mode

Command function

Modify the stp mode

Command format

stp mode <stp|rstp|mstp>

no stp mode

Parameter description

None

84.3. stp hello-time

Command function

Configuration the interval for sending bpdu 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

84.4. 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

84.5. 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

84.6. 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		

84.7. 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

84.8. 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

84.9. stp tc-protection**Command function**

Enable tc protection

Command format

```
stp tc-protection
no stp tc-protection
```

Parameter description

None

84.10. 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

84.11. 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

84.12. stp time-factor**Command function**

Configure the timeout factor

Command format

stp time-factor <num>
no stp time-factor

Parameter description

Parameter	Parameter description	Value
num		1-10, the default 3

84.13. stp new-root-trap

Command function

Enable or disable send trap when discovery new root bridge

Command format

```
stp new-root-trap enable  
stp new-root-trap disable
```

Parameter description

None

84.14. stp topo-change-trap

Command function

Enable or disable send trap when topology change

Command format

```
stp topo-change-trap enable  
stp topo-change-trap disable
```

Parameter description

None

84.15. stp bpdu-guard

Command function

Enable the bpdu-guard function globally or on a physical interface

Command format

```
stp bpdu-guard  
no stp bpdu-guard
```

Parameter description

None

84.16. 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

84.17. 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

84.18. stp portfast

Command function

Physical interface configured as an edge port

Command format

stp portfast [autoedge | disable |edgeport]

no stp portfast

Parameter description

Parameter	Parameter description	Value
autoedge	port-fast state automatically	
disable	Port can't change to port-fast state	
edgeport	Port change to port-fast state directly	

84.19. 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	

84.20. stp loop-guard

Command function

Physical interface configuration loop-guard function

Command format

stp loop-guard

no stp loop-guard

Parameter description

None

84.21. stp mcheck

Command function

Perform mcheck function

Command format

stp mcheck

Parameter description

None

84.22. 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

84.23. 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

84.24. stp tcn-restricted

Command function

Physical interface configuration tcn propagation limit function

Command format

stp tcn-restricted

no stp tcn-restricted

Parameter description

None

84.25. 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

84.26. 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

85. MSTP configuration manual

85.1. stp

Command function

Global or physical interface enables stp

Command format

stp

no stp

Parameter description

None

85.2. stp mode

Command function

Modify stp mode

Command format

stp mode <stp|rstp|mstp>

no stp mode

Parameter description

None

85.3. 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

85.4. 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

85.5. 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

85.6. 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

85.7. 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	Value

	description	
id	Instance number	0-15
num2	priority	0-61440 and 4096 multiples, default 32768

85.8. 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

85.9. mstp tc-protection

Command function

Enable tc protection

Command format

mstp tc-protection

no mstp tc-protection

Parameter description

None

85.10. 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, 默认 10s

85.11. 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

85.12. 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

85.13. 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

85.14. 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

85.15. 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	

85.16. 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>

85.17. mstp enable instance

Command function

Enable instance

Command format

mstp enable instance <id>

Parameter description

Parameter	Parameter description	Value
id		1-15

85.18. mstp disable instance

Command function

Disable instance

Command format

mstp disable instance <id>

Parameter description

Parameter	Parameter description	Value
id		1-15

85.19. mstp revision

Command function

Configure revision

Command format

mstp revision <level>

no mstp region-name

Parameter description

Parameter	Parameter description	Value
level		0-65535

85.20. 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
enable	Enable function	
num	Shocks	1-100, default 5
seconds	Recovery time	30-1000, default 30s

85.21. 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

85.22. 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	

85.23. mstp portfast**Command function**

Physical interface configured as an edge port

Command format

```
mstp portfast [autoedge | disable |edgeport]
no mstp portfast
```

Parameter description

Parameter	Parameter description	Value
autoedge	port-fast state automatically	
disable	Port can't change to port-fast state	
edgeport	Port change to port-fast state directly	

85.24. 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 description	Value
auto	Automatic detection	
point-to-point	Point to point	
shared	Non-point to point	

85.25. mstp loop-guard

Command function

Physical interface configuration loop-guard function in port mode

Command format

mstp loop-guard

no mstp loop-guard

Parameter description

None

85.26. mstp root-guard

Command function

Physical interface configuration root-guard function in port mode

Command format

mstp root-guard

no mstp root-guard

Parameter description

None

85.27. mstp mcheck

Command function

Perform mcheck function

Command format

mstp mcheck

Parameter description

None

85.28. 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

85.29. mstp config-digest-snooping

Command function

Compatible with Cisco

Command format

```
mstp config-digest-snooping
no mstp config-digest-snooping
```

Parameter description

None

85.30. show mstp instance

Command function

View mstp instance information

Command format

```
show mstp instance [id | brief]
```

Parameter description

None

85.31. show mstp disabled-instance

Command function

View disabled-instance

Command format

```
show mstp instance
```

Parameter description

None

85.32. show mstp config-id

Command function

View the domain configuration of mstp

Command format

show mstp config-id

Parameter description

None

86. EAPS configuration manual

86.1. eaps

Command function

Global enable eaps

Command format

eaps

no eaps

Parameter description

None

86.2. 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

86.3. control-vlan

Command function

eaps domain 下配置控制 vlan

Command format

control-vlan <vlan-id>

no control-vlan

Parameter description

Parameter	Parameter description	Value
vlan-id		1-4093

86.4. 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

86.5. 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

86.6. 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

86.7. 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

86.8. topo-collect

Command function

Configure topology discovery in the eaps domain

Command format

```
topo-collect
no topo-collect
```

Parameter description

None

86.9. 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	

86.10. show eaps

Command function

Display eaps ring information

Command format

show eaps

Parameter description

None

86.11. 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	

86.12. 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

86.13. 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	

86.14. 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	

86.15. 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	

87. ERPS configuration manual

87.1. erps

Command function

Global enable erps

Command format

erps

no erps

Parameter description

None

87.2. 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

87.3. 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

87.4. 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

87.5. 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

87.6. 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

87.7. 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>

87.8. 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	

87.9. 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	

87.10. 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

87.11. show erps

Command function

Display erps ring information

Command format

show erps

Parameter description

None

87.12. show erps control-vlan**Command function**

Display erps control-vlan and ring port information

Command format

show erps control-vlan [v_lan-*i*d]

Parameter description

Parameter	Parameter description	Value
v _l an- <i>i</i> d	v _l an	1-4094

87.13. show erps instance**Command function**

Display erps ring information based on instance

Command format

show eaps domain <instance-*i*d>

Parameter description

Parameter	Parameter description	Value
instance- <i>i</i> d	instance 号	0-15

87.14. show erps instance <*i*d> statistics**Command function**

Count packets based on instance

Command format

show erps instance <instance-*i*d> statistics

Parameter description

Parameter	Parameter description	Value
instance- <i>i</i> d	instance	0-15

87.15. show erps statistics**Command function**

Display erps packet count

Command format

show erps statistics

Parameter description

None

88. PVST/Rapid-PVST configuration manual

88.1. stp

Command function

Global or physical interface enables stp

Command format

stp

no stp

Parameter description

None

88.2. stp mode

Command function

Modify pvst mode

Command format

stp mode <pvst |rapid-pvst>

no stp mode

Parameter description

None

88.3. pvst hello-time

Command function

Configure the interval for sending bpdu packets

Command format

pvst hello-time <seconds>

no pvst hello-time

Parameter description

Parameter	Parameter description	Value
seconds		1-10 s

88.4. pvst forward-time

Command function

Configure forward-delay time

Command format

pvst forward-time <seconds>

no pvst forward-time

Parameter description

Parameter	Parameter description	Value
seconds		4–30 s

88.5. pvst max-age

Command function

Interval for aging the interzone pvst protocol packets

Command format

pvst max-age <num>

no pvst max-age

Parameter description

Parameter	Parameter description	Value
num		6–40 s

88.6. pvst instance <id> vlan

Command function

Configure the mapping between the instance and the vlan and conflict

with mstp

Command format

pvst instance <id> vlan <vlan-list>

no pvst instance <id> vlan <vlan-list>

Parameter description

Parameter	Parameter description	Value
id	Instance number	0–15
vlan-list	Vlan list	

88.7. pvst instance <id> priority

Command function

Modify the priority of the instance

Command format

```
pvst instance <id> priority <num2>
no pvst instance <id> priority
```

Parameter description

Parameter	Parameter description	Value
id	Instance number	0-15
num2	priority	0-61440 and 4096 multiples, default 32768

88.8. pvst bpdu-guard

Command function

Enable bpdu-guard on physical interfaces

Command format

```
pvst bpdu-guard
no pvst bpdu-guard
```

Parameter description

None

88.9. pvst bpdu-filter

Command function

The physical interface filters bpdu packets

Command format

```
pvst bpdu-filter
no pvst bpdu-filter
```

Parameter description

None

88.10. pvst loop-guard

Command function

Physical interface configuration loop-guard function

Command format

```
pvst loop-guard
no pvst loop-guard
```

Parameter description

None

88.11. pvst edge-port**Command function**

Physical interface configured as an edge port

Command format**pvst edge-port****no pvst edge-port****Parameter description**

None

88.12. pvst instance <id> cost**Command function**

Configure the cost of the physical interface

Command format**pvst instance <id> cost <num>****no pvst instance <id> cost****Parameter description**

Parameter	Parameter description	Value
num		1-200000000
id	Instance number	

88.13. pvst instance <id> port-priority**Command function**

Modify the priority of the physical interface

Command format**pvst instance <id> port-priority <num>****no pvst instance <id> port-priority****Parameter description**

Parameter	Parameter description	Value
num	Priority size	0-240 and 16 multiple, default 128
id	Instance number	0-15

88.14. show pvst instance brief

Command function

Check pvst information

Command format

show pvst instance brief [*instance-list*]

Parameter description

Parameter	Parameter description	Value
instance-list	Instance list	STRING<1-128>

89. Eth-Trunk 配置命令

89.1. interface eth-trunk

Command function

Add and enter or enter aggregates groups

Command format

interface eth-trunk <i>

no interface eth-trunk <i>

Parameter description

Parameter	Parameter description	Value
id	Aggregation group number	1-31

89.2. 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

89.3. 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	

89.4. link-aggregation members ethernet

Command function

Adding member ports to an aggregation group

Command format

```
link-aggregation members ethernet <interface-list>
no link-aggregation members ethernet
```

Parameter description

Parameter	Parameter description	Value
interface-list	Port list	

89.5. 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

89.6. 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	

89.7. lACP period

Command function

Configure the interface timeout mode on the physical interface

Command format

lacp period <long|short >

Parameter description

Parameter	Parameter description	Value
short	Short time	
long	Long time	

89.8. 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

89.9. 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

89.10. 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	

89.11. show lacp sys-id

Command function

Display the aggregation group system ID

Command format

show lacp sys-id

Parameter description

None

89.12. 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	

90. FlexLink configuration manual

90.1. flex-link group

Command function

Add and enter or enter FlexLink

Command format

```
flex-link group <id>  
no flex-link group <id>
```

Parameter description

Parameter	Parameter description	Value
id	Aggregation group number	0-15

90.2. master-port

Command function

Configure the master port in flex-link group mode

Command format

```
master-port <eth-trunk <eth-trunk-num>|ethernet <ethernet-num>>  
no master-port <eth-trunk <eth-trunk-num>|ethernet <ethernet-  
num>>
```

Parameter description

Parameter	Parameter description	Value
eth-trunk-num	Aggregation group number	1-31
ethernet-num	Physical port number	

90.3. slave-port

Command function

Configure the slave port in flex-link group mode

Command format

```
slave-port <eth-trunk <eth-trunk-num>|ethernet <ethernet-num>>
no slave-port <eth-trunk <eth-trunk-num>|ethernet <ethernet-num>>
```

Parameter description

Parameter	Parameter description	Value
eth-trunk-num	Aggregation group number	1~31
ethernet-num	Physical port number	

90.4. preemption mode

Command function

Configure preemption mode in flex-link group mode

Command format

```
preemption mode <bandwidth|off|role>
no preemption mode
```

Parameter description

Parameter	Parameter description	Value
bandwidth	Bandwidth preemption	
off	Don't preempt	
role	Role preemption	

90.5. preemption delay

Command function

Configure preemption delay in flex-link group mode

Command format

```
preemption delay <seconds>
no preemption delay
```

Parameter description

Parameter	Parameter description	Value
seconds		1~60s

90.6. flex-link flush send

Command function

Enable sending mac table flush function

Command format

flex-link flush send

no flex-link flush send

Parameter description

None

90.7. flex-link flush receive

Command function

Enable receiving mac table flush function

Command format

flex-link flush receive

no flex-link flush receive

Parameter description

None

90.8. show flex-link group

Command function

Display FlexLink group information

Command format

show flex-link group [<id>]

Parameter description

Parameter	Parameter description	Value
id	Aggregation group number	0-30

90.9. show flex-link flush

Command function

Display receive, send flush statistics and configuration information

Command format

show flex-link flush

Parameter description

None

91. MonitorLink configuration manual

91.1. monitor-link-group

Command function

Add and enter or enter monitor-link-group

Command format

```
monitor-link-group <id>
no monitor-link-group <id>
```

Parameter description

Parameter	Parameter description	Value
id	Aggregation group number	0-4

91.2. uplink interface

Command function

Configure the uplink port

Command format

```
uplink interface <eth-trunk <eth-trunk-num>|ethernet <ethernet-
num>>
no uplink interface <eth-trunk <eth-trunk-num>|ethernet <ethernet-
num>>
```

Parameter description

Parameter	Parameter description	Value
eth-trunk-num	Aggregation group number	1-31
ethernet-num	Physical port number	

91.3. downlink interface

Command function

Configure the downlink port

Command format

```
downlink interface <eth-trunk <eth-trunk-num>|ethernet <ethernet-
num>>
no downlink interface <eth-trunk <eth-trunk-num>|ethernet
```

<ethernet-num>

Parameter description

Parameter	Parameter description	Value
eth-trunk-num	Aggregation group number	1-31
ethernet-num	Physical port number	

91.4. show monitor-link-group**Command function**

Display monitor-link-group group information

Command format**show monitor-link-group [id]****Parameter description**

Parameter	Parameter description	Value
id	Aggregation group number	0-4

92. Sntp-Client Configuration command**92.1. sntp client****Command function**

Sntp client enable switch.

Command format**sntp client****no sntp client****Parameter Description****none**

92.2. 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

92.3. sntp client authenticate

Command function

Sntp client authentication function switch.

Command format

sntp client authenticate
no sntp client authenticate

Parameter Description

92.4. 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

92.5. 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
<i>id</i>		Key id
<i>key</i>		password
md5-key		md5 password

92.6. 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
<i>seconds</i>		1-9999ms

92.7. 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
<i>seconds</i>		30-99999s, default 1000s

92.8. 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

92.9. 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

92.10. 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	

92.11. 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	

92.12. 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	

92.13. 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	1-4294967295

92.14. 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	1-4294967295

92.15. 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	

92.16. 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	
----	------------	--

92.17. show sntp client

Command function

View the customer's run information

Command format

show sntp client

Parameter Description

None

92.18. show sntp client summer-time

Command function

View daylight saving time

Command format

show sntp client summer-time

Parameter Description

None

93. System time configuration command

93.1. 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	

93.2. 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<1-16>
hours-offset	hours-offset	
minutes-offset	minutes-offset	

93.3. 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	

93.4. 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	Value range

	Description	
start-month	start-month	
start-week	start-week	
start-time	start-time	
end-month	end-month	
end-day	end-day	
end-time	end-time	

93.5. show clock

Command function

View system current time, time zone information

Command format

show clock

Parameter Description

None

94. 1.Static route configuration commands

94.1. 1.1 ip route

Command function

ip route dst-net mask next-hop

IP route add static routing entries

Command format

ip route 192.168.2.0 255.255.255.0 192.168.1.2

no ip route 192.168.2.0 255.255.255.0 192.168.1.2

no ip route static all

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.

94.2. 1.2 show ip route

Command function

show ip route

Check routing table entries

Command format

show ip route [ip-address [mask] | static]

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	

95. 2 IPv6 static route configuration

command

95.1. 2.1 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.

95.2. 2.2 show ipv6 route

Command function

Check routing table entries

Command format

show ipv6 route

Parameter description

None

96. 802.1Q Configuration command

96.1. 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

96.2. 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

96.3.

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

96.4. 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

96.5. switchport trunk allowed vlan

Command function

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

Commanad to add 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

96.6. switchport trunk tagged pvid

Command function

(no) switchport trunk tagged pvid

Command to add or remove the vlan under the trunk tagged port

Command format

switchport trunk tagged pvid

no switchport trunk tagged pvid

Parameter Description**none****96.7. 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

96.8. 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

96.9. 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

96.10. 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

96.11. ingress filtering**Command function**

(no) ingress filtering

Command to enable or delete port message filtering

Command format

(no) ingress filtering

Parameter Description

None

96.12. 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

96.13. 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

96.14. 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

97. QINQ Configuration

97.1. 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

97.2. 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
protocol-number	protocol-number	1-ffff

97.3. 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

97.4. 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	Value range
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	Description	
protocol-number	protocol-number	1-ffff

97.5. 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

97.6. 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

97.7. show qinq

Command function

show qinq

Command to view qinq configuration information

Command format

show qinq

Parameter Description

None

97.8. 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

97.9. 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	无

97.10. vlan insert

Command function

vlan insert start-vlan end-vlan service-vlan

Command to configure dynamic qinq under 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

98. GVRP Configuration

98.1. gvrp

Command function

(no)gvrp

Command to switch GVRP function, disable by default.

Command format

(no)gvrp

Parameter Description

None

98.2. 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

98.3. 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

98.4. 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

98.5. 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

98.6. 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

99. Vlan Swap Command

99.1. 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

99.2. 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

100. Protocol-VLAN Configuration Command

100.1. vlan-protocol

Command function

(no)vlan-protocol profile < index> frametype <frametype ethertype>

Command format

vlan-protocol profile 1 frame-type ethernet2 ether-type 0800

no vlan-protocol profile 1

Parameter Description

Parameter	Parameter Description	Value range
index	Profile index	1-16
frametype	Frame type	8023-llc-snap 8023-llc ethernt2

ethertype	Ethertype id	1-FFFF
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100.2. vlan-protocol profile

Command function

(no) **vlan-protocol profile <index> vlan <vlan id>**

Command to configure or delete protocol-based VLAN on the port

Command format

vlan-protocol profile 1 vlan 100

no vlan-protocol profile 1

Parameter Description

Parameter	Parameter Description	Value range
index	Profile index	1-16
Vlan-id	Vlan id	1-4094

100.3. show vlan-protocol interface

Command function

show vlan-protocol interface [ethernet port id]

Command to view all configurations of a protocol-based vlan

Command format

show vlan-protocol 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

100.4. show vlan-protocol profile

Command function

show vlan-protocol profile [index]

Command to view all configurations of a protocol-based vlan

Command format

show vlan-protocol profile 1

Parameter Description

Parameter	Parameter Description	Value range
index	Profile index	1-16

101. **vlan-subnet** Configuration command

101.1. **vlan-subnet**

Command function

```
(no)vlan-subnet ipv4 <ipadd> mask <mask> vlan <vlan-id>
priority <pri>
```

Command to configure or delete vlan based on IP subnet

Command format

```
vlan-subnet ipv4 192.168.100 mask 255.255.255.255 vlan 10
priority 5
no vlan-subnet ipv4 192.168.100 mask 255.255.255.255
```

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

101.2. **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

101.3. 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

101.4. show vlan-subnet

Command function

show vlan-subnet [ipadd mask]

Command to view all configurations based on subnet vlan

Command format

show vlan-subnet 1 255.255.0.0

Parameter Description

Parameter	Parameter Description	Value range
ipadd	Ip address	Available IP address
mask	mask	0.0.0.0-255.255.255.255

102. Mac-vlan

Command

Configuration

102.1. vlan-mac-table

Command function

(no)vlan-mac-table mac-address <mac-add> vlan <vlan-id> priority <pri>

Command to configure or delete vlan based on MAC address

Command format

vlan-mac-table mac-address 00:00:00:11:11:11 vlan 100 priority 7
no vlan-mac-table mac-address 00:00:00:11:11:11

Parameter Description

Parameter	Parameter Description	Value range

Mac-add	Mac Address	Available mac address
vlan-id	Vlan id	1-4094
pri	priority	0-7

102.2. 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

102.3. 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 2:2:2:2:2:2

Parameter Description

Parameter	Parameter Description	Value range
mac-address	Mac address	Available mac address

103. Vlan-trunking Configuration Commands

103.1. vlan-trunking

Command function

[no] vlan-trunking

Command to configure VLAN passthrough in port mode

Command format

[no] vlan-trunking

Parameter Description

None

103.2. **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

103.3. **show vlan-trunking**

Command function

show vlan-trunking

Command to view configuration exchange VLAN passthrough information

Command format

show vlan-trunking

Parameter Description

None

104. Voice vlan Configuration Commands

104.1. **voice vlan**

Command function

voice vlan voice vlan id cos value

Commands are used to configure voice vlan id and vlan priority globally

voice vlan voice vlan id

Command is used to configure voice vlan id under port

no voice vlan

Command is used to delete voice vlan configuration

globally/port

Command format

voice vlan 100 cos 2

voice vlan 100

no voice vlan

Parameter Description

Parameter	Parameter Description	value
<i>voice vlan id</i>	voice vlan	2-4094, Is the created vlan
<i>value</i>	priority	0-7

104.2. voice vlan aging

Command function

voice vlan aging minute Command to configure voice vlan aging time

no voice vlan aging Command to restore the default voice vlan aging time

Command format

voice vlan aging 10

no voice vlan aging

Parameter Description

Parameter	Parameter Description	value
minute	Voice vlan address aging time, in minutes. The default is 720mins	1-65535

104.3. voice vlan oui-mac

Command function

voice vlan oui-mac mac-add mask oui- mask name description

Command is used to configure the oui address of voice vlan

no voice vlan oui-mac mac-add mask oui- mask

Command is used to delete the configured voice vlan oui address

Command format

voice vlan oui-mac 00:00:00:11:11:11 mask ff:ff:ff:00:00:00 name aa

no voice vlan oui-mac 00:00:00:11:11:11 mask ff:ff:ff:00:00:00

Parameter Description

Parameter	Parameter Description	value
Mac-add	Specify the oui of the voice vlan	A valid mac address is available, and it cannot be set to all zeros, multicast address or broadcast address.
oui- mask	Specify the mask address of oui	
description	Specify the description information of oui	String format, the length ranges from 1 to 32, case sensitive

104.4. voice vlan security

Command function

voice vlan security enable | disable

The command is used to turn on/off the safe mode of voice vlan, which is enabled by default

Command format

voice vlan security enable

voice vlan security disable

Parameter Description

none

104.5. voice vlan enable | disable

Command function

voice vlan enable | disable

Command to enable/disable the voice vlan function under global/port, it is

disabled by default

Command format

```
voice vlan enable
voice vlan disable
```

Parameter Description

none

104.6. voice vlan mode

Command function

```
voice vlan mode[auto-tagged| auto-untagged| manual]
```

The command configures or deletes the voice vlan mode under the port, which is auto-untagged by default

Command format

```
voice vlan mode auto-tagged
voice vlan mode auto-untagged
voice vlan mode manual
```

Parameter Description

none

104.7. voice vlan qos

Command function

```
(no) voice vlan qos value
```

Command to configure or delete voice vlan priority under the port

Command format

```
voice vlan qos 4
no voice vlan qos
```

Parameter Description

Parameter	Parameter Description	value
<i>value</i>	<i>priority</i>	0~7

104.8. show voice vlan

Command function

show voice vlan Command to view the configuration information of voice
vlan

Command format

show voice vlan

Parameter Description

none

104.9. show voice vlan device

Command function

show voice vlan device Command to view voice vlan device information

Command format

show voice vlan device

Parameter Description

none

104.10. show voice vlan oui-mac

Command function

show voice vlan oui-mac

Command to view the voice vlan oui-mac list, the list has 8 entries by default

Command format

show voice vlan oui-mac

Parameter Description

none



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