

# Ceiling Series CLI User Guide

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L2 PRO PoE Switch

Release A2

# ABOUT THIS GUIDE

**PURPOSE** This guide gives specific information on how to operate CLI to manage this switch.

**AUDIENCE** The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, Internet Protocol (IP), and SSH Protocol.

## Revision History

<b>Release</b>	<b>Date</b>	<b>Revision</b>
<b>Initial Release</b>	<b>2022/01/03</b>	<b>A1</b>
<b>Revision</b>	<b>2023/01/13</b>	<b>A2</b>

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The following description is the brief of the network connection.

-- Attach the RJ45 serial port on the switch's front panel which used to connect to the switch for telnet configuration

-- At "Com Port Properties" Menu, configure the parameters as below: (see the next section)

Baud rate	115200
Stop bits	1
Data bits	8
Parity	N
Flow control	none

## 1-1 Login

The command-line interface (CLI) is a text-based interface. User can access the CLI through either a direct serial connection to the device or a Telnet session (Default IP address: **192.168.1.1**). The default user and password to login into the Managed Switch are listed below:

**Username:**    **admin**  
**Password:**    **admin**

After you login successfully, the prompt will be shown as “<sys\_name>#”. See the following figures. It means you behave as an administrator and have the privilege for setting the Managed Switch. If log as not the administrator, the prompt will be shown as “<sys\_name>>”, it means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has its privilege

```
Username: admin
Password: admin
C62-050-30-B#
```

## 1-2 Commands of CLI

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, please input “?” after the system prompt, then all commands will be listed in the screen. The command modes are listed as follows:

### Command Modes

MODE	PROMPT	COMMAND FUNCTION IN THIS MODE
exec	<sys_name>#	Display current configuration, diagnostics, maintenance
config	<sys_name>(config)#	Configure features other than those below
config-if	<sys_name>(config-interface)#	Configure ports
config-if-range	<sys_name>(config-if-range)#	Configure a range of ports
config-vlan	<sys_name>(config-vlan)#	Configure static vlan

Commands reside in the corresponding modes could run only in that mode. If a user wants to run a particular command, the user has to change to the appropriate mode. The command modes are organized as a tree, and users start to in enable mode. The following table explains how to change from one mode to another.

### Change Between Command Modes

MODE	ENTER MODE	LEAVE MODE
exec	--	--
config	Configure terminal	exit
config-interfcae	Interface <port-type> <port-number>	exit
config-interfcae-range	Interface range <port-type> <port-type-list>	exit
config-vlan	vlan <vlan_list>	exit

## 1-3 Global Commands of CLI

```
C62-050-30-B# ?
clear          Reset functions
clock         Manage the system clock
configure     Configuration Mode
copy         Copy from one file to another
debug        Debug Options
delete       Delete a file from the flash file system
disable     Turn off privileged mode command
end         End current mode and change to enable mode
exit       Exit current mode and down to previous mode
no         Negate command
ping      Send ICMP ECHO_REQUEST to network hosts
reboot    Halt and perform a cold restart
restore-defaults Restore to default
save      Save running configuration to flash
show     Show running system information
ssl      Setup SSL host keys
terminal Terminal configuration
traceroute Trace route to network hosts
```

Table : CLEAR Commands

Command	Function
interfaces	Interface status and configuration
ip	IP information
lacp	LACP Configuration
line	To identify a specific line for configuration
lldp	Reset lldp information
logging	Log Configuration
mac	MAC configuration
port-security	Port Security
power	Power-over-Ethernet Configuration
spanning-tree	Spanning-tree configuration



## 2-1 interfaces

Clear interface status and configuration.

### Syntax

**clear interfaces** GigabitEthernet <port\_list> counters

**clear interfaces** LAG <lag\_list> counters

### Parameter

<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
	<b>&lt;port_list&gt;</b>	Port List X-Y,Z
<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
	<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z

### Example

```
C62-050-30-B# clear interfaces GigabitEthernet 1-3,6 counters
C62-050-30-B# clear interfaces LAG 2-4,6 counters
C62-050-30-B#
```

## 2-2 ip

Clear IP information.

### Syntax

**clear ip igmp snooping** groups {<cr>|<dynamic>|<static>}

**clear ip igmp snooping** statistics

### Parameter

<b>groups</b>	IPv4 multicast groups	
	<b>&lt;cr&gt;</b>	
	<b>dynamic</b>	dynamic groups
	<b>static</b>	static groups
<b>statistics</b>	Clear IGMP snooping statistics	

### Example

```
C62-050-30-B# clear ip igmp snooping statistics
C62-050-30-B# clear ip igmp snooping groups static
C62-050-30-B# clear ip igmp snooping groups dynamic
C62-050-30-B#
```

## 2-3 lacp

Clear LACP Configuration.

### Syntax

**Clear lacp** counters

### Parameter

<b>counters</b>	LAG number
-----------------	------------

### Example

```
C62-050-30-B# clear lacp counters
C62-050-30-B#
```

## 2-4 line

Clear a specific line for configuration.

### Syntax

**clear line** telnet

### Parameter

<b>telnet</b>	Telnet daemon configuration
---------------	-----------------------------

### Example

```
C62-050-30-B# clear line telnet
C62-050-30-B#
```

## 2-5 lldp

Clear lldp information.

### Syntax

**clear lldp** global statistics

**clear lldp** interfaces GigabitEthernet <port\_list> statistics

**clear lldp** interfaces LAG <lag\_list> statistics

### Parameter

<b>global</b>	Clear LLDP statistics		
	<b>statistics</b>		
<b>interfaces</b>	Clear LLDP statistics for specified ports		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
<b>&lt;lag_list&gt;</b>		LAG List X-Y,Z	

### Example

```
C62-050-30-B# clear lldp global statistics
C62-050-30-B# clear lldp interfaces GigabitEthernet 1-3,6 statistics
C62-050-30-B# clear lldp interfaces LAG 1-3,6 statistics
C62-050-30-B#
```

## 2-6 logging

Clear log configuration.

### Syntax

**clear logging** {<buffered>|<file>}

### Parameter

<b>buffered</b>	Buffered logging
<b>file</b>	File logging

### Example

```

C62-050-30-B# clear logging buffered
C62-050-30-B# clear logging file
C62-050-30-B#

```

## 2-7 mac

Clear MAC configuration.

### Syntax

**clear mac address-table dynamic**

**clear mac address-table dynamic** interface GigabitEthernet <port\_list>

**clear mac address-table dynamic** interface LAG <lag\_list>

**clear mac address-table dynamic** vlan <vlan\_id>

### Parameter

<b>interface</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
<b>&lt;lag_list&gt;</b>		LAG List X-Y,Z	
<b>vlan</b>	VLAN configuration		
	<b>&lt;vlan_id&gt;</b>	VLAN ID (1-4094)	

### Example

```

clear mac address-table dynamic
C62-050-30-B# clear mac address-table dynamic interfaces GigabitEthernet 1-3,6
C62-050-30-B# clear mac address-table dynamic interfaces LAG 1-3,6
C62-050-30-B# clear mac address-table dynamic vlan 2
C62-050-30-B#

```

## 2-8 port-security

Clear port security configuration.

### Syntax

**clear port-security** all {<cr>|<address>|<interface>}

**clear port-security** configured {<cr>|<address>|<interface>}

**clear port-security** dynamic {<cr>|<address>|<interface>}

**clear port-security** sticky {<cr>|<address>|<interface>}

#### Parameter

<b>all</b>	All secure mac addresses
<b>configured</b>	Configured secure mac addresses
<b>dynamic</b>	Secure MAC address auto-learned by hardware
<b>sticky</b>	Secure MAC address either auto-learned or configured

#### Example

```
C62-050-30-B# clear port-security all
C62-050-30-B# clear port-security all address 68:8D:B6:00:00:01
C62-050-30-B# clear port-security all interface GigabitEthernet 1
C62-050-30-B#
```

## 2-9 power

Clear power-over-ethernet configuration.

#### Syntax

**clear power** inline interfaces GigabitEthernet <port\_list> statistics

#### Parameter

<b>&lt;port_list&gt;</b>	Port List X-Y,Z
--------------------------	-----------------

#### Example

```
C62-050-30-B# clear power inline interfaces GigabitEthernet 3-6 statistics
C62-050-30-B#
```

## 2-10 spanning-tree

clear spanning-tree statistics

#### Syntax

**clear spanning-tree** interfaces GigabitEthernet <port\_list> statistics

**clear spanning-tree** interfaces LAG <lag\_list> statistics

**Parameter**

<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
	<b>&lt;port_list&gt;</b>	Port List X-Y,Z
<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
	<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z

**Example**

```
C62-050-30-B# clear spanning-tree interfaces GigabitEthernet 1-3,6 statistics
C62-050-30-B# clear spanning-tree interfaces LAG 1-3,6 statistics
C62-050-30-B#
```

Manage the system clock.

### Syntax

**clock set** <HH:MM:SS> <month> <day> <year>

### Parameter

<b>set</b>	Manually set the system clock	
	<b>&lt; HH:MM:SS &gt;</b>	Current time in hours (24 Hour format), minutes, and seconds.
	<b>&lt;month&gt;</b>	jan Month January feb Month February mar Month March apr Month April may Month May jun Month June jul Month July aug Month August sep Month September oct Month October nov Month November dec Month December
	<b>&lt;day&gt;</b>	Current day in the month.Current year
	<b>&lt;year&gt;</b>	<2000-2035>

### Example

```
C62-050-30-B# clock set 16:54:00 jan 7 2022
C62-050-30-B#
```

Table : CONFIGURE Commands

Command	Function
boot	Booting Operations
ceiling	LED and Power Configuration
clock	Manage the system clock
custom	Custom Module configuration
dido	Digital I/O Configuration
dos	DoS information
do	To run exec commands in current mode
end	End current mode and change to enable mode
errdisable	Error Disable
exit	Exit current mode and down to previous mode
hostname	Set system's network name
interface	Select an interface to configure
ip	IP information
ipv6	IPv6 information
jumbo-frame	Jumbo Frame configuration
lacp	LACP Configuration
lag	Link Aggregation Group Configuration
line	To identify a specific line for configuration
lldp	Global LLDP configuration subcommands
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
mirror	Mirror configuration
no	Negate command
ntp	Network Time Protocol
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration
smtp	SMTP Configuration
snmp	SNMP information

spanning-tree	Spanning-tree configuration
system	System information
username	Local User
vlan	VLAN configuration

---

## 4-1 configure

Configure from the terminal.

### Syntax

**configure**

### Example

```
C62-050-30-B# configure
C62-050-30-B(config)#
```

## 4-1.1 boot

To select booting image.

### Syntax

**boot system** {<image0>|<image1>}

### Parameter

<b>image0</b>	Runtime image 0
<b>Image1</b>	Runtime image 1

### Example

```
C62-050-30-B(config)# boot system image0
C62-050-30-B(config)#
```

## 4-1.1 ceiling

LED Configuration

Power Configuration

### 4-1.1.1 LED configuration

To configure LED

## Syntax

```
ceiling led {<12v_enable>|<24v_enable>|<di_enable>|<do_enable>|<pwr_enable>|<sys_enable>|  
<lan1_enable>|<lan2_enable>|<lan3_enable>|<lan4_enable>|<lan5_enable>|<lan6_enable>|  
<poe1_enable>|<poe2_enable>|<poe3_enable>|<poe4_enable>|<poe5_enable>}
```

## Parameter

<b>12v_enable</b>	Set 12V enable
<b>24v_enable</b>	Set 24V enable
<b>di_enable</b>	Set DI enable
<b>do_enable</b>	Set DO enable
<b>pwr_enable</b>	Set power enable
<b>sys_enable</b>	Set SYS enable
<b>lan1_enable</b>	Set LAN1 enable
<b>lan2_enable</b>	Set LAN2 enable
<b>lan3_enable</b>	Set LAN3 enable
<b>lan4_enable</b>	Set LAN4 enable
<b>lan5_enable</b>	Set LAN5 enable
<b>lan6_enable</b>	Set LAN6 enable
<b>poe1_enable</b>	Set POE1 enable
<b>poe2_enable</b>	Set POE2 enable
<b>poe3_enable</b>	Set POE3 enable
<b>poe4_enable</b>	Set POE4 enable
<b>poe5_enable</b>	Set POE5 enable

## Example

```
C62-050-30-B(config)# ceiling led 12v_enable  
C62-050-30-B(config)# no ceiling led 12v_enable
```

### 4-1.1.2 Power Configuration

To configuration DC Power.

## Syntax

```
ceiling power {<pwr_12v_enable>|<pwr_24v_enable>}
```

## Parameter

<b>pwr_12v_enable</b>	Set Power 12V enable
<b>pwr_24v_enable</b>	Set Power 24V enable

### Example

```
C62-050-30-B(config-if)# ceiling power pwr_12v_enable
C62-050-30-B(config-if)# no ceiling power pwr_12v_enable
C62-050-30-B(config-if)#
```

## 4-1.2 clock

To manage the system clock.

### Syntax

```
clock {<source>|<summer-time>|<timezone>}
```

### Parameter

<b>source</b>	Configure an external time source for the system clock
<b>summer-time</b>	Configure the system to automatically switch to summer time (daylight saving time)
<b>timezone</b>	Set the time zone for display purposes

### Example

```
C62-050-30-B(config)# clock source local
C62-050-30-B(config)# clock source ntp
C62-050-30-B(config)#
```

## 4-1.3 custom

To configure custom module.

### Syntax

```
custom enable
```

### Parameter

### Example

```
C62-050-30-B(config)# custom enable
C62-050-30-B(config)#
```

## 4-1.5 dos

To configure DoS.

### Syntax

```
dos {<daeqsa-deny>|<icmp-frag-pkts-deny>|<icmpv4-ping-max-check>|<icmpv6-ping-max-check>|
<ipv6-min-frag-size-check>|<land-deny>|<>nullscan-deny>|<pod-deny>|<smurf-deny>|
<syn-sportl1024-deny>|<synfin-deny>|<synrst-deny>|<tcp-frag-off-min-check>|<tcpblat-deny>|
<tcphdr-min-check>|<udpblat-deny>|<udpblat-deny>}

dos icmp-ping-max-length <0-65535>
dos ipv6-min-frag-size-length <0-65535>
dos smurf-netmask <0-32>
dos tcphdr-min-length <0-31>
```

### Parameter

<b>daeqsa-deny</b>	Destination MAC equals to source MAC
<b>icmp-frag-pkts-deny</b>	Fragmented ICMP packets
<b>icmp-ping-max-length</b>	DoS information
<b>icmpv4-ping-max-check</b>	Check ICMPv4 ping maximum packets size
<b>icmpv6-ping-max-check</b>	Check ICMPv6 ping maximum packets size
<b>ipv6-min-frag-size-check</b>	Check minimum size of IPv6 fragments
<b>ipv6-min-frag-size-length</b>	DoS information
<b>land-deny</b>	Source IP equals to destination IP
<b>nullscan-deny</b>	NULL Scan Attacks
<b>pod-deny</b>	Ping of Death Attacks
<b>smurf-deny</b>	Smurf Attacks
<b>smurf-netmask</b>	DoS information
<b>syn-sportl1024-deny</b>	SYN packets with sport less than 1024
<b>synfin-deny</b>	SYN and FIN bits set in the packet
<b>synrst-deny</b>	SYNC and RST bits set in the packet

<b>tcp-frag-off-min-check</b>	TCP fragment packet with offset equals to one
<b>tcpblat-deny</b>	Source TCP port equals to destination TCP port
<b>tcphdr-min-check</b>	Check minimum TCP header
<b>tcphdr-min-length</b>	DoS information
<b>udpblat-deny</b>	Source UDP port equals to destination UDP port
<b>xma-deny</b>	Xmascan: sequence number is zero and the FIN, URG and PSH bits are set

### Example

```
C62-050-30-B(config)# dos xma-deny
C62-050-30-B(config)#
```

## 4-1.6 do

To run exec commands in current mode.

### Syntax

**do** <command for exec mode>

### Parameter

### Example

```
C62-050-30-B(config)# do show users
  Username      Protocol      Location
-----
      admin      console      0.0.0.0
C62-050-30-B(config)#
```

## 4-1.7 end

End current mode and change to enable mode.

### Syntax

**end**

### Example

```
C62-050-30-B(config)# end
C62-050-30-B#
```

## 4-1.8 errdisable

Error Disable.

### Syntax

```
errdisable recovery cause {<acl>|<all>|<arp-inspection>|<bpdu-guard>|<broadcast-flood>|
<dhcp-rate-limit>|<psecure-violation>|<selfloop>|
<unicast-flood>|<unknown-multicast-flood>}
errdisable recovery interval <interval_time>
```

### Parameter

<b>cause</b>	Error Disabled caused reason	
	<b>acl</b>	Enable timer to recover from acl causes
	<b>all</b>	Enable timer to recover from all causes
	<b>arp-inspection</b>	Enable timer to recover from arp rate limit causes
	<b>bpdu-guard</b>	Enable timer to recover from bpdu guard causes
	<b>broadcast-flood</b>	Enable timer to recover from broadcast flood causes
	<b>dhcp-rate-limit</b>	Enable timer to recover from dhcp rate limit causes
	<b>psecure-violation</b>	Enable timer to recover from port security causes
	<b>selfloop</b>	Enable timer to recover from selfloop causes
	<b>unicast-flood</b>	Enable timer to recover from unicast flood causes
	<b>unknown-multicast-flood</b>	Enable timer to recover from unknown multicast flood
<b>interval</b>	Recovery interval	
	<b>&lt;interval_time&gt;</b>	Interval with the number of seconds (30-86400)

### Example

```
C62-050-30-B(config)# errdisable recovery cause unknown-multicast-flood
C62-050-30-B(config)#
```

## 4-1.9 exit

Exit current mode and down to previous mode.

### Syntax

**exit**

### Example

```
C62-050-30-B(config)# exit
C62-050-30-B#
```

## 4-1.10 hostname

To set system's network name.

### Syntax

**hostname** <system\_network\_name>

### Parameter

<b>system_network_name</b>	System network name (1-32 words)
----------------------------	----------------------------------

### Example

```
C62-050-30-B(config)# hostname C62-050-30-B
C62-050-30-B(config)#
```

## 4-1.11 interface

Select an interface to configure.

### Syntax

**interface** GigabitEthernet <port\_number>

**interface** LAG <lag\_id>

**interface range** GigabitEthernet <port\_list>

**interface range** LAG <lag\_list>

### Parameter

<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
	<b>&lt;port_number&gt;</b>	Port number
<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
	<b>&lt;lag_id&gt;</b>	LAG id
<b>range</b>	Interface range command	
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure
	<b>&lt;port_list&gt;</b>	Port List X-Y,Z
	<b>back-pressure</b>	Enable back-pressure
	<b>custom</b>	Custom Module configuration
	<b>description</b>	Interface specific description
	<b>dos</b>	DoS information
	<b>do</b>	To run exec commands in current mode
	<b>duplex</b>	Configure duplex operation
	<b>eee</b>	EEE configuration
	<b>end</b>	End current mode and change to enable mode
	<b>exit</b>	Exit from current mode
	<b>flowcontrol</b>	Configure flow-control mode
	<b>ip</b>	IP information
	<b>lACP</b>	LACP Configuration
	<b>lag</b>	Link Aggregation Group Configuration
	<b>lldp</b>	LLDP interface subcommands
	<b>mac</b>	MAC configuration
	<b>no</b>	Negate command
	<b>port-security</b>	Port Security
	<b>power</b>	Power-over-Ethernet Configuration
	<b>protected</b>	Configure an interface to be a protected port
	<b>qos</b>	QoS configuration
	<b>rate-limit</b>	Rate limit configuration of the specified incoming traffic
	<b>shutdown</b>	Shutdown the selected interface
	<b>spanning-tree</b>	Spanning-tree configuration
	<b>speed</b>	Configure speed operation
	<b>storm-control</b>	Storm control configuration
	<b>switchport</b>	Set switching mode characteristics
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface

		<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z
			<b>back-pressure</b> Enable back-pressure
			<b>custom</b> Custom Module configuration
			<b>description</b> Interface specific description
			<b>dos</b> DoS information
			<b>do</b> To run exec commands in current mode
			<b>duplex</b> Configure duplex operation
			<b>end</b> End current mode and change to enable mode
			<b>exit</b> Exit from current mode
			<b>flowcontrol</b> Configure flow-control mode
			<b>ip</b> IP information
			<b>mac</b> MAC configuration
			<b>no</b> Negate command
			<b>protected</b> Configure an interface to be a protected port
			<b>qos</b> QoS configuration
			<b>shutdown</b> Shutdown the selected interface
			<b>spanning-tree</b> Spanning-tree configuration
			<b>speed</b> Configure speed operation
			<b>switchport</b> Set switching mode characteristics

### Example

```
C62-050-30-B(config)# interface GigabitEthernet 1
C62-050-30-B(config-if)#
```

#### 4-1.11.1 back-pressure

Back-pressure configuration.

#### Syntax

**back-pressure**

**no back-pressure**

### Example

```
C62-050-30-B(config-if) # back-pressure
C62-050-30-B(config-if) # no back-pressure
C62-050-30-B(config-if) #
```

### 4-1.11.2 custom

Per port custom module configuration

#### Syntax

**custom enable**

**no custom enable**

#### Parameter

<b>custom enable</b>	Enable per port custom function
<b>no custom enable</b>	Disable per port custom function

### Example

```
C62-050-30-B(config-if) # custom enable
C62-050-30-B(config-if) # no custom enable
C62-050-30-B(config-if) #
```

### 4-1.11.3 description

Interface specific description

#### Syntax

**description <WORD>**

**no description**

#### Parameter

<b>WORD</b>	Description string (1-63 words)
-------------	---------------------------------

### Example

```
C62-050-30-B(config-if)# description desc_word
C62-050-30-B(config-if)# no description
C62-050-30-B(config-if)#
```

#### 4-1.11.4 dos

Per port DoS-related function configuration

### Syntax

**dos**

**no dos**

### Parameter

<b>dos</b>	Enable per port DoS function
<b>no dos</b>	Disable per port DoS function

### Example

```
C62-050-30-B(config-if)# dos
C62-050-30-B(config-if)# no dos
C62-050-30-B(config-if)#
```

#### 4-1.11.5 do

To run exec commands in current mode

### Syntax

**do <sequence>**

### Parameter

<b>sequence</b>	Exec Command
-----------------	--------------

## Example

```
C62-050-30-B(config-if)# do show info
System Name      : C62-050-30-B
System Location  :
System Contact   :
MAC Address      : 68:8D:B6:00:00:00
IP Address       : 192.168.11.199
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Jan 11 2022 - 13:46:46
Firmware Version : 2.0.1.3_vk
Firmware Date    : Jan 11 2022 - 13:52:13
System Object ID : 1.3.6.1.4.1.27282.3.2.10
System Up Time   : 0 days, 0 hours, 40 mins, 3 secs
C62-050-30-B(config-if)#
```

## 4-1.11.6 duplex

Per Port duplex configuration

### Syntax

**Duplex** {<auto>|<full>|<half>}

### Parameter

<b>auto</b>	Enable auto duplex configuration
<b>full</b>	Force full duplex operation
<b>half</b>	Force half duplex operation

## Example

```
C62-050-30-B(config-if)# duplex auto
C62-050-30-B(config-if)#
```

#### 4-1.11.7 eee

Per port EEE configuration

##### Syntax

**eee**

**no eee**

##### Parameter

<b>eee</b>	Enable per port EEE function
<b>no eee</b>	Disable per port EEE function

##### Example

```
C62-050-30-B(config-if) # eee
C62-050-30-B(config-if) # no eee
C62-050-30-B(config-if) #
```

#### 4-1.11.8 end

End current mode and change to enable mode

##### Syntax

**end**

##### Example

```
C62-050-30-B(config-if) # end
C62-050-30-B#
```

#### 4-1.11.9 exit

Exit from current mode

##### Syntax

**exit**

### Example

```
C62-050-30-B(config-if)# exit  
C62-050-30-B(config)#
```

## 4-1.11.10 flowcontrol

Per port flow control configuration

### Syntax

**flowcontrol** {<auto>|<off>|<on>}

### Parameter

<b>auto</b>	Enable per port auto mode flow control
<b>off</b>	Disable per port flow control function
<b>on</b>	Force on per port flow control function

### Example

```
C62-050-30-B(config-if)# flowcontrol auto  
C62-050-30-B(config-if)#
```

## 4-1.11.11 ip

Per port IP information.

### Syntax

**ip igmp** filter <1-128>

**ip igmp** max-groups <0-256>

**ip igmp** max-groups action {<deny>|<replace>}

### Parameter

<b>filter</b>	IPv4 filter	
	<1-128>	IPv4 filter profile index
<b>max-groups</b>	IGMP snooping max group number 0~256	
	deny	IGMP max-group action deny
	replace	IGMP max-group action replace

### Example

```
C62-050-30-B(config-if)# ip igmp filter 1
C62-050-30-B(config-if)#
```

### 4-1.11.12 lacp

Per port LACP-related function configuration

#### Syntax

**lacp priority** <1-65535>

**lacp timeout** {<fast>|<slow>}

**no lacp priority**

**no lacp timeout**

#### Parameter

<b>priority</b>	IEEE 802.3 link aggregation port priority	
	<1-65535>	Port-priority value
<b>timeout</b>	IEEE 802.3 link aggregation port timeout	
	fast	Long timeout value
	slow	Short timeout value

### Example

```
C62-050-30-B(config-if)# lacp timeout slow
C62-050-30-B(config-if)#
```

#### 4-1.11.13 lag

Per port link aggregation group configuration.

##### Syntax

**lag <lag-id> lacp {<active>|<passive>}**

**lag <lag-id> mode static**

**no lag**

##### Parameter

<b>&lt;lag-id&gt;</b>	configure port as LAG <lag-id> member port		
	<b>mode</b>	Set LAG mode	
		static	Enable Static Only
	<b>lacp</b>	LACP Configuration	
		active	active mode
		passive	passive mode

##### Example

```
C62-050-30-B(config-if)# lag 1 lacp active
C62-050-30-B(config-if)#
```

#### 4-1.11.14 lldp

Per port LLDP function configuration

##### Syntax

**lldp rx**

**lldp tlv-select {<TLV>|pvid {<enable>|<disable>}|vlan-name {add <VLAN-LIST>|remove <VLAN-LIST>}}**

**lldp tx**

**no lldp rx**

**no tlv-select**

**no tlv-select pvid**

no lldp tx

#### Parameter

<b>rx</b>	Enable LLDP reception on interface		
<b>tlv-select</b>	Selection of LLDP TLVs to send		
	<b>TLV</b>	LLDP optional TLV, pick from: port-desc, sys-name, sys-desc, sys-cap, mac-phy, lag, max-frame-size, management-addr	
	<b>pvid</b>	disable	Disable Tx optional-TLV 802.1 PVID
		enable	Enable Tx optional-TLV 802.1 PVID
	<b>vlan-name</b>	Add/remove VLAN for advertise	
<b>add</b>		<VLAN_LIST>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095
<b>remove</b>		<VLAN_LIST>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095
<b>tx</b>	Enable LLDP transmission on interface		

#### Example

```
C62-050-30-B(config-if)# lldp tx
C62-050-30-B(config-if)#
```

#### 4-1.11.15 mac

Per port mac address table configuration

#### Syntax

**mac address-table learn** {<auto>|<disable>|<secure>}

#### Parameter

<b>auto</b>	Learning is done automatically
<b>disable</b>	No learning
<b>secure</b>	Only static MAC entries are learned, all other frames are dropped.

#### Example

```
C62-050-30-B(config-if)# mac address-table learn secure
C62-050-30-B(config-if)#
```

#### 4-1.11.16 no

Negate command

**Table : configure – no Commands**

<b>Command</b>	<b>Function</b>
back-pressure	Enable back-pressure
custom	Custom Module configuration
description	Interface specific description
dos	DoS information
eee	EEE configuration
flowcontrol	Configure flow-control mode
ip	IP information
lacp	LACP Configuration
Lag	Link Aggregation Group Configuration
lldp	Lldp configuration
port-security	Port Security
power	Power-over-Ethernet Configuration
protected	Configure an interface to be a protected port
qos	QoS configuration
rate-limit	Rate limit configuration of the specified incoming traffic
shutdown	Shutdown the selected interface
spanning-tree	Spanning-tree configuration
storm-control	Storm control configuration
switchport	Set switching mode characteristics

#### 4-1.11.17 port-security

Per port port-security function configuration.

##### Syntax

**port-security** {<cr>|<address-limit>|<mac-address>|<violation>}

**no port-security** {<cr>|<address-limit>|<mac-address>|<violation>}

##### Parameter

<b>address-limit</b>	MAC address limitation
<b>mac_address</b>	Sticky MAC address
<b>violation</b>	Action to be taken when limitation is reached

##### Example

```
C62-050-30-B(config-if) # port-security
C62-050-30-B(config-if) #
```

#### 4-1.11.18 power

Per port power over ethernet (PoE) configuration.

##### Syntax

**power inline** auto

**power inline** auto-check {<action>|<interval>|<ip>|<reboot-max>|<reboot-time>|<retry>|<start-time>}

**power inline** delay initial {<cr>|<0-300>}

**power inline** bt

**power inline** poh

**power inline** force

**power inline** limit <0-30000>

**power inline** never

**power inline** priority {<critical>|<high>|<low>}

**power inline** schedule <schedule\_profile\_number>

**no power inline** {<delay>|<limit>|<schedule>}

### Parameter

<b>auto</b>	Turns on the device discovery protocol and applies power to the device.	
<b>auto_check</b>	Auto check funtion	
	<b>action</b>	ilpower port auto check action
	<b>interval</b>	ilpower port auto check interval
	<b>ip</b>	ilpower port auto check ip
	<b>reboot-max</b>	ilpower port auto check maximum reboot times
	<b>reboot-time</b>	ilpower port auto check reboot time
	<b>retry</b>	ilpower port auto check retry times
	<b>start-time</b>	ilpower port auto check start time
<b>delay</b>	<b>initial</b>	Initial power enable
	<0-300>	Specifies the port power delay time in seconds
<b>force</b>	The switch port will power up the linked PD without any detect/negotiate mechanism	
<b>bt</b>	BT Mode	
<b>poh</b>	POH Mode	
<b>limit</b>	The port limit of the interface from the point of view of inline power management	
	<0-30000>	Specify the port limit in milliwatt
<b>never</b>	Turns off the device discovery protocol and stops supplying power to the device	
<b>priority</b>	ilpower port priority	
	critical	Specifies that the powered device operation is critical
	high	Specifies that the powered device operation is high
	low	Specifies that the powered device operation is low
<b>schedule</b>	Schedule Profile Configuration	
	<1-10>	Schedule Profile number

### Example

```
C62-050-30-B(config-if)# power inline schedule 1
C62-050-30-B(config-if)#
```

#### 4-1.11.19 protected

Per port protected function configuration.

##### Syntax

**protected**

**no protected**

##### Example

```
C62-050-30-B(config-if)# protected
C62-050-30-B(config-if)#
```

#### 4-1.11.20 qos

Per port QoS-related configuration

##### Syntax

**qos** {<cos>|<queue>|<remark>|<schedule>|<trust>}

##### Parameter

<b>cos</b>	Configure the default CoS value for a port. Use the no form of the command to return to the default setting.
<b>queue</b>	Queue configuration
<b>remark</b>	Configure remarking state of each port
<b>schedule</b>	QoS scheduling algorithm
<b>trust</b>	Configure each port to trust state while the system is in basic mode. Use the no form of the command to disable trust state on each port

##### Example

```
C62-050-30-B(config-if)# qos schedule wfq
C62-050-30-B(config-if)#
```

#### 4-1.11.21 rate-limit

Per port rate limit configuration

##### Syntax

**rate-limit egress** <16-1000000>

**rate-limit egress queue** <queue\_id> <16-1000000>

**rate-limit ingress** <16-1000000>

**no rate-limit egress queue** <queue\_id>

**no rate-limit ingress**

##### Parameter

<b>egress</b>	Rate limit args egress configuration		
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	
	<b>queue</b>	queue configuration	
		<queue_id>	queue id
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	
<b>ingress</b>	Rate limit args ingress configuration		
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	

##### Example

```
C62-050-30-B(config-if)# rate-limit ingress 16000
C62-050-30-B(config-if)#
```

#### 4-1.11.22 shutdown

Shutdown the selected interface

##### Syntax

**shutdown**

**no shutdown**

## Parameter

<b>shutdown</b>	shutdown the interface
<b>no shutdown</b>	turn on the interface

## Example

```
C62-050-30-B(config-if) # shutdown
C62-050-30-B(config-if) #
```

### 4-1.11.23 spanning-tree

Per port spanning tree configuration

## Syntax

**spanning-tree**

**spanning-tree bpdu-filter**

**spanning-tree bpdu-guard**

**spanning-tree cost** <0-200000000>

**spanning-tree edge**

**spanning-tree link-type** {<point-to-point>|<shared>}

**spanning-tree mcheck**

**spanning-tree mst** <0-15> **cost** <0-200000000>

**spanning-tree mst** <0-15> **port-priority** <0-240>

**spanning-tree port-priority** <0-240>

## Parameter

<b>bpdu-filter</b>	Sets the BPDU-Filter for specified port	
<b>bpdu-guard</b>	Sets the BPDU-Guard for specified port	
<b>cost</b>	Change an interface's spanning tree path cost	
	<0-200000000>	The value of external path cost (0 = Auto)
<b>edge</b>	Sets the edge-port for specified port	

<b>link-type</b>	Specify a link type for spanning tree protocol use			
	<point-to-point>	Consider the interface as point-to-point		
	<shared>	Consider the interface as shared		
<b>mcheck</b>	Set the mcheck for specified port to migrate			
<b>mst</b>	Sets spanning-tree parameters of instance			
	<0-15>	Instance ID (0~15)		
		cost	Sets the internal path cost for specified instance	
		<0-200000000>	The value of internal path cost (0 = Auto)	
	port-priority	Sets the priority for specified instance		
<0-240>		Priority (0~240)		
<b>port-priority</b>	Sets the priority for specified instance			
	<0-240>	Priority (0~240)		

### Example

```
C62-050-30-B(config-if)# spanning-tree link-type point-to-point
C62-050-30-B(config-if)#
```

#### 4-1.11.24 speed

Per port speed configuration

### Syntax

```
speed {10|100|1000|auto}
```

### Parameter

### Example

```
C62-050-30-B(config-if)# speed 1000
C62-050-30-B(config-if)#
```

#### 4-1.11.25 storm-control

Per port storm-control configuration

## Syntax

**storm-control** {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

**no storm-control** {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

## Parameter

<b>action</b>	Storm control action after exceed threshold
<b>broadcast</b>	Broadcast storm control
<b>unknown-multicast</b>	Unknown-multicast storm control
<b>unknown-unicast</b>	Unknown-unicast storm control

## Example

```
C62-050-30-B(config-if)# storm-control  
C62-050-30-B(config-if)#
```

### 4-1.11.26 switchport

Set per port switching mode characteristics.

## Syntax

**switchport** {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

**no switchport** {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

## Parameter

<b>access</b>	Vlan aware port
<b>default-vlan</b>	Default VLAN
<b>forbidden</b>	Forbidden VLAN
<b>hybrid</b>	Configure switchport in hybrid mode
<b>mode</b>	VLAN mode
<b>trunk</b>	Vlan aware port

## Example

```
C62-050-30-B(config-if)# switchport mode access
C62-050-30-B(config-if)#
```

## 4-1.12 ip

Internet Protocol.

### Syntax

**ip** address <ipv4\_addr> {<cr>|mask <ipv4\_mask>}

**ip** default-gateway <ipv4\_addr>

**ip** dhcp

**ip** dhcp server

**ip** dhcp server dhcp-range <pool\_start\_ipv4\_addr> <pool\_end\_ipv4\_addr>

**ip** dhcp server lease-time <0-864000000>

**ip** dns <ipv4\_addr>

**ip** http

**ip** http port <1-65535>

**ip** http session-timeout <0-65535>

**ip** https

**ip** https port <1-65535>

**ip** https session-timeout <0-65535>

**ip** igmp profile <1-128>

**ip** igmp snooping {<cr>|<forward-method>|<report-suppression>|<unknown-multicast>|<version>|<vlan>}

### Parameter

<b>address</b>	IPv4 Address		
	A.B.C.D	IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255)	
	<b>mask</b>	A.B.C.D	

<b>default-gateway</b>	Set default gateway IP address				
	A.B.C.D	Default gateway IP address			
<b>dhcp</b>	DHCP configuration				
	<b>server</b>	dhcp server configuration			
		<b>dhcp-range</b>	IPv4 range		
			A.B.C.D	IPv4 start address	A.B.C.D
		<b>lease-time</b>	lease time		
<0-864000000>	0-864000000 seconds (0: infinite)				
<b>dns</b>	DNS				
	A.B.C.D	IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255)			
<b>http</b>	HTTP server configuration				
	<b>port</b>	Configure port			
		<1-65535>	port number		
	<b>session-timeout</b>	Session timeout configuration			
<0-65535>		Timeout after specified minutes (0 means no timeout)			
<b>https</b>	HTTPS server configuration				
	<b>port</b>	Configure port			
		<1-65535>	port number		
	<b>session-timeout</b>	Session timeout configuration			
<0-65535>		Timeout after specified minutes (0 means no timeout)			
<b>igmp</b>	IGMP Configuration				
	<b>profile</b>	IGMP profile			
		<1-128>	Profile index		
	<b>snooping</b>	IGMP Snooping Configuration			
		forward-method	Forward method		
			dip	DIP method	
			mac	MAC method	
		report-suppression	IGMP v1/v2 report suppression		
		unknown-multicast	Unknown multicast		
			action	Action on receiving unknown multicast packets	
				drop	Drop the packets
	flood			Flood the packets	
	router-port	Forward to router ports			
<b>version</b>	IGMP Snooping Operation Version				
	2	IGMP Operation Version is v2			
	3	IGMP Operation Version is v3			
<b>vlan</b>	VLAN configuration				

		VLAN-LIST	VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094	
			forbidden-port	IPv4 forbidden port configuration
			forbidden-router-port	Forbidden mrouter port configuration
			immediate-leave	IGMP snooping immediate-leave function
			last-member-query-count	Last Member Query Count
			last-member-query-interval	Last Member Query Interval
			querier	IGMP snooping querier function
			query-interval	Query Interval
			response-time	Response Time
			robustness-variable	Robustness Variable
			router	IGMP snooping router
			static-group	Static group configuration
			static-port	IPv4 static port configuration
			static-router-port	Static mrouter port configuration
<b>ssh</b>	SSH daemon configuration			
	<b>port</b>	Configure port		
		<1-65535>	port number	
<b>telnet</b>	Telnet daemon configuration			
	<b>port</b>	Configure port		
		<1-65535>	port number	

### Example

```

C62-050-30-B(config)# ip address 192.168.11.1
C62-050-30-B(config)# ip dhcp server dhcp-range 192.168.11.100 192.168.11.200
C62-050-30-B(config)# ip dhcp server
C62-050-30-B(config)# ip dns_address 8.8.8.8
C62-050-30-B(config)#

```

## 4-1.13 ipv6

IPv6 configuration commands.

### Syntax

**Ipv6**

**ipv6** address <ipv6\_address> prefix <0-128>

**ipv6** default-gateway <ipv6\_address>

**ipv6** dhcp

#### Parameter

<b>address</b>	Set IPv6 address and prefix		
	<ipv6_addr>	<b>prefix</b>	prefix length
			<0-128> length value
<b>autoconfig</b>	Enable Ipv6 auto-configuration		
<b>default-gateway</b>	Set IPv6 gateway		
	<ipv6_addr>	IPv6 gateway	
<b>dhcp</b>	Set IPv6 DHCP Client		

#### Example

```
C62-050-30-B(config)# ipv6 address FC00:: prefix 8
C62-050-30-B(config)#
```

### 4-1.14 jumbo-frame

Jumbo frame configuration.

#### Syntax

**jumbo-frame** {<cr>|<1518-10000>}

#### Example

```
C62-050-30-B(config)# jumbo-frame
C62-050-30-B(config)#
```

### 4-1.15 lacp

Lacp system configuration.

### Syntax

**lacp sys-priority** <1-65535>

### Parameter

<b>sys-priority</b>	LACP priority for the system	
	<1-65535>	Priority value

### Example

```
C62-050-30-B(config)# lacp sys-priority 1
C62-050-30-B(config)#
```

## 4-1.16 lag

Link aggregation group configuration.

### Syntax

**lacp load-balance** {<src-dst-mac>|<src-dst-mac-ip>}

### Parameter

<b>load-balance</b>	Configure load balancing policy of the trunk	
	src-dst-mac	LAG load balancing is based on source and destination MAC address
	src-dst-mac-ip	LAG load balancing is based on source and destination of MAC and IP address

### Example

```
C62-050-30-B(config)# lag load-balance src-dst-mac
C62-050-30-B(config)#
```

## 4-1.17 line

To identify a specific line for configuration.

### Syntax

**line** {<console>|<ssh>|<telnet>}

### Parameter

console	Console terminal line
ssh	Virtual terminal for secured remote console access (SSH)
telnet	Virtual terminal for remote console access (Telnet)

### Example

```
C62-050-30-B(config)# line console
C62-050-30-B(config)#
```

## 4-1.18 lldp

LLDP configuration.

### Syntax

**lldp** holdtime-multiplier <2-10>

**lldp** lldpdu {<filtering>|<bridging>|<flooding>}

**lldp** reinit-delay <1-10>

**lldp** tx-delay <1-8192>

**lldp** tx-interval <5-32767>

### Parameter

<b>holdtime-multiplier</b>	Configuration of multiplier used for calculating the LLDP discovery packet hold time	
	<2-10>	Multiplier used for calculating the LLDP discovery packet hold time

<b>lldpdu</b>	Configure the action on LLDPDU upon disabled LLDP	
	bridging	Bridging LLDP PDU to VLAN member ports
	filtering	Drop LLDP PDU
<b>reinit-delay</b>	Delay (in sec) for LLDP initialization on any interface	
	<1-10>	Specify the delay (in secs) for LLDP to initialize
<b>tx-delay</b>	Delay between successive LLDP frame transmission	
	<1-8192>	LLDP Tx-delay time in seconds
<b>tx-interval</b>	Specify the rate at which LLDP packets are sent (in sec)	
	<5-32768>	Rate at which LLDP packets are sent (in sec)

### Example

```
C62-050-30-B(config)# lldp holdtime-multiplier 5
C62-050-30-B(config)# lldp tx-delay 1
C62-050-30-B(config)# lldp tx-interval 5
C62-050-30-B(config)#
```

## 4-1.19 logging

Log Configuration.

### Syntax

**logging** {<cr>|<buffered>|<console>|<file>} severity <0-7>

**logging** host

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} facility <local0-local7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> facility <local0-local7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> severity <0-7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> severity <0-7> facility <local0-local7>

**logging** class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

## Parameter

buffered / console / file	Buffered logging / Console logging / File logging			
	severity	Specify logging level		
		<0-7>	Minimum severity <0-7> (EMEGR-DEBUG)	
host	Remote syslog host			
	<ipv4_addr> / Hostname / <ipv6_addr>	Valid IP v4 Address / Host name / Valid IP v6 Address		
		facility	Specify facility parameter for syslog messages	
		port	Remote server port, default 514	
		severity	Specify logging level	
class	Logging event class setting			
	auth-failed	Set logging authentication failure event		
	cold-start	Set logging bootstrap cold start-up event		
	di	Set logging DI event		
	do	Set logging DO event		
	linkUpDown	Set logging link up and down event		
	poe-Fail	Set logging PoE failure event		
	poe-OnOff	Set logging PoE on/off event		
	warm-start	Set logging bootstrap warm start-up event		

## Example

```
C62-050-30-B(config)# logging host 10.10.10.1 facility local7
C62-050-30-B(config)# logging console severity 5
C62-050-30-B(config)#
```

## 4-1.20 loop-prevention

Loop prevention configuration.

### Syntax

**loop-prevention**

### Example

```
C62-050-30-B(config)# loop-prevention
C62-050-30-B(config)#
```

## 4-1.21 mac

MAC address table configuration.

### Syntax

```
mac address-table {<aging>|<aging-time>|<static>}
```

### Parameter

aging	aging state	
aging-time	aging time of the address table	
	<10-630>	Aging-time range in seconds indicating how long an entry remain in mac address table
static	Static MAC address	

### Example

```
C62-050-30-B(config)# mac address-table aging
C62-050-30-B(config)#
```

## 4-1.22 management vlan

Management VLAN configuration.

### Syntax

```
management-vlan vlan <1-4094>
```

### Parameter

<1-4094>	VLAN ID
----------	---------

### Example

```
C62-050-30-B(config)# management-vlan vlan 1
C62-050-30-B(config)#
```

## 4-1.23 mirror

Mirror configuration.

### Syntax

**mirror** session <1-4> source interface GigabitEthernet <port\_id> {<both>|<tx>|<rx>}

**mirror** session <1-4> source interface LAG <lag\_id> {<both>|<tx>|<rx>}

**mirror** session <1-4> destination interface GigabitEthernet <port\_id> {<cr>|<allow-ingress>}

### Parameter

session	Mirror Session configuration		
	<1-4>	Session ID (e.g. 1-4) configuraton	
		destination	Mirror destination configuration
		source	Mirror Source configuration

### Example

```
C62-050-30-B(config)# mirror session 1 destination interface GigabitEthernet 1
allow-ingress
C62-050-30-B(config)#
```

## 4-1.24 no

Negate command

**Table : configure – no Commands**

Command	Function
clock	Manage the system clock
custom	Custom Module configuration
dos	DoS information
errdisable	Error Disable
ip	IP information
ipv6	IPv6 information
jumbo-frame	Jumbo Frame configuration
lacp	LACP Configuration
lag	Link Aggregation Group Configuration
lldp	Global LLDP configuration subcommands
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
mirror	Mirror configuration
ntp	Network Time Protocol
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration
smtp	SMTP Configuration
snmp	SNMP information
spanning-tree	Spanning-tree configuration
username	Local User
vlan	VLAN configuration

## 4-1.25 ntp

Configure NTP.

### Syntax

**ntp host** {<ip\_address>|<hostname>} port <1-65535>

#### Parameter

<b>ip_address</b>	Valid IP v4 address
<b>hostname</b>	Host name

#### Example

```
C62-050-30-B(config)# ntp host 118.163.81.61 port 123
C62-050-30-B(config)#
```

### 4-1.26 port-security

Port security configuration.

#### Syntax

**port-security**

**port-security rate-limit** <1-600>

#### Parameter

<b>rate-limit</b>	Rate limiter to protect the CPU against excessive load	
	<1-600>	Rate in packet per second (pps)

#### Example

```
C62-050-30-B(config)# port-security rate-limit 300
C62-050-30-B(config)#
```

### 4-1.27 power

Power over Ethernet (PoE) configuration.

## Syntax

**power** inline auto-check

**power** inline force-mode {<disable>|<enable>}

**power** inline limit-mode {<class>|<port>}

**power** inline schedule <1-10> name <profile\_name>

**power** inline schedule <1-10> weekday <1-7> {<start>|<end>} hour <0-23> minute <0-59>

**power** inline cycle start enable

**power** inline cycle time <1-30>

## Parameter

<b>auto-check</b>	The auto refresh function of the interface from the point of view of inline power management	
<b>force-mode</b>	PoE power force mode of the rtk system	
	disable	The power force mode disable
	enable	The power force mode enable
<b>limit-mode</b>	PoE power limit mode of the system	
	class	The power limit of a port is fixed regardless of the class of the discovered PD
	port	The power limit of a port is based on the class of the PD as detected during the classification process
<b>schedule</b>	Schedule Profile Configuration	

## Example

```
C62-050-30-B(config)# power inline limit-mode class
C62-050-30-B(config)#
```

## 4-1.28 qos

Quality of Service.

## Syntax

**qos**

**qos** map {<cos-queue>|<dscp-queue>|<precedence-queue>|<queue-cos>|<queue-dscp>|

<queue-precedence>}

**qos** queue strict-priority-num <0-8>

**qos** queue weight <1-8>

**qos** trust {<cos>|<cos-dscp>|<dscp>|<precedence>}

#### Parameter

<b>map</b>	Configure the QoS maps	
	cos-queue	Map assigned CoS values to select an egress queue. Use the command no form to return to the default values.
	dscp-queue	Modify the DSCP to queue map.
	precedence-queue	Modify the IP Precedence to queue map.
	queue-cos	Modify the queue to CoS map.
	queue-dscp	Modify the queue to DSCP map.
	queue-precedence	Modify the queue to ip precedence map.
<b>queue</b>	Queue configuration	
	strict-priority-num	Configure the number of strict priority queues
	weight	Configure weights to egress queues. Use no form to return to default values
<b>trust</b>	Configure the global trust mode . Use the no form to return untrusted state.	
	cos	Specify trust mode cos.
	cos-dscp	Specify trust mode Cos-DSCP.
	dscp	Specify trust mode DSCP.
	precedence	Specify trust mode precedence

#### Example

```
C62-050-30-B(config)# qos
C62-050-30-B(config)#
```

#### 4-1.29 smtp

Simple Mail Transfer Protocol(SMTP) configuration.

## Syntax

### smtp

**smtp** class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

**smtp** {<email\_1>|<email\_2>|<email\_3>|<email\_4>|<email\_5>|<email\_6>|<mail-server>|<password>|<return-path>|<sender>|<username>} WORD<0-48>

## Parameter

<b>email_1</b>	Set SMTP email 1 address	WORD<0-48>
<b>email_2</b>	Set SMTP email 2 address	
<b>email_3</b>	Set SMTP email 3 address	
<b>email_4</b>	Set SMTP email 4 address	
<b>email_5</b>	Set SMTP email 5 address	
<b>email_6</b>	Set SMTP email 6 address	
<b>mail-server</b>	Set SMTP mail server address	
<b>password</b>	Set SMTP password	
<b>return-path</b>	Set SMTP return address	
<b>sender</b>	Set SMTP sender address	
<b>username</b>	Set SMTP user name	
<b>class</b>	SMTP event class setting	
	auth-failed	Set SMTP authentication failure event
	cold-start	Set SMTP bootup cold start-up event
	di	Set SMTP DI event
	do	Set SMTP DO event
	linkUpDown	Set SMTP link up and down event
	poe-Fail	Set SMTP PoE failure event
	poe-OnOff	Set SMTP PoE on/off event
	warm-start	Set SMTP bootup warm start-up event

## Example

```
C62-050-30-B(config)# smtp class auth-failed
C62-050-30-B(config)#
```

## 4-1.30 snmp

SNMP server's configuration.

### Syntax

**snmp**

**snmp** community <community\_string> (address|group|ro|rw)

**snmp** engineid ENGINEID

**snmp** engineid default

**snmp** engineid remote {<A.B.C.D>|<HOSTNAME>|<X::X::X>}

**snmp** group NAME version (1|2c|3) noauth read-view NAME write-view NAME

**snmp** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>}

**snmp** trap (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

**snmp** user USER\_NAME group GROUP\_NAME auth (md5|sha) AUTHPASSWD priv (aes|des) PRIVPASSWD (ro|rw)

**snmp** view VIEW\_NAME subtree Subtree\_OID viewtype (excluded|included)

### Parameter

<b>community</b>	Set community or security name string		
	<community_string>	Community name (maximum length is 20 characters)	
		ro	Set community access read_only
		rw	Set community access read_write
<b>host</b>	Trap or inform host		
<b>engineid</b>	SNMP engine id setting		
<b>group</b>	Set access group string		
<b>user</b>	Set user Settings		
<b>view</b>	Set view string		
<b>trap</b>	SNMP class trap setting		
	auth	Set snmp authentication failure trap	
	cold-start	Set snmp bootup cold start-up trap	
	linkUpDown	Set snmp link up and down trap	
	warm-start	Set snmp bootup warm start-up trap	

	di	Set SNMP DI event trap
	do	Set SNMP DO event trap
	poe-Fail	Set SNMP PoE Failure event trap
	poe-OnOff	Set SNMP PoE On/Off event trap

### Example

```
C62-050-30-B(config)# snmp
C62-050-30-B(config)# snmp community private rw
C62-050-30-B(config)#
```

## 4-1.31 spanning-tree

Spanning Tree protocol.

**Table : configure –spanning-tree Commands**

Command	Function
<b>mst configuration</b>	Enter MST configuration submode

### Syntax

**spanning-tree**

**spanning-tree** bpdu (filtering|flooding)

**spanning-tree** forward-delay <4-30>

**spanning-tree** hello-time <1-10>

**spanning-tree** max-hops <1-40>

**spanning-tree** maximum-age <6-40>

**spanning-tree** mode (stp|rstp|mstp)

**spanning-tree** mst <0-15> priority <0-61440>

**spanning-tree** pathcost method (long|short)

**spanning-tree** priority <0-61440>

**spanning-tree** tx-hold-count <1-10>

## Parameter

<b>bpdu</b>	Configure default bpdu action.
<b>filtering</b>	BPDU packets are filtered on STP-disable ports.
<b>flooding</b>	BPDU packets are flooding to all ports when STP-disable.
<b>forward-delay</b>	Configure forward-delay parameter.
<b>&lt;4-30&gt;</b>	Forward-delay time in seconds.
<b>hello-time</b>	Configure hello-time parameter.
<b>&lt;1-10&gt;</b>	Configure hello time in seconds.
<b>max-hops</b>	Configure MSTP bridge max hop count.
<b>&lt;1-40&gt;</b>	Configure maximum number of hops.
<b>maximum-age</b>	Configure the age time for receiving control packet from root switch.
<b>&lt;6-40&gt;</b>	Age time of control packet from root switch.
<b>mode</b>	Spanning tree protocol type
<b>mst</b>	MSTP bridge instance
<b>&lt;0-15&gt;</b>	MST instance ID , 0 is for CIST (0..15)
<b>priority</b>	Priority of the instance
<b>spanning-tree</b>	Enable spanning-tree protocol.
<b>tx-hold-count</b>	Configure tx-hold-count in seconds.
<b>&lt;1-10&gt;</b>	Tx-hold counts.

## Example

```
C62-050-30-B(config)# spanning-tree mode stp
C62-050-30-B(config)#
```

### 4-1.31.1 mst configuration

STP bridge instance configuration submenu.

#### Syntax

**spanning-tree mst configuration**

**instance** <0-15> vlan <vlan\_list>

**name** <word32>

**revision** <0-65535>

#### Parameter

<b>mst configuration</b>	Enter MST configuration submode.
<b>Instance</b>	Sets spanning-tree parameters of instances.
<b>&lt;0-15&gt;</b>	MST instance ID , 0 is for CIST (0..15)
<b>vlan</b>	Add the MSTI-to-VLAN mapping.
<b>&lt;vlan_list&gt;</b>	List of VLAN numbers, 1~4094.
<b>name</b>	Name keyword
<b>&lt;word32&gt;</b>	Name of the bridge (word32)
<b>revision</b>	Set revision level.
<b>&lt;0-65535&gt;</b>	Revision level (0..65535)

#### Example

```
C62-050-30-B(config)# spanning-tree mst 7 vlan 10
C62-050-30-B(config) #
```

### 4-1.32 system

Set the system information configuration.

#### Syntax

**system** contact <word255>

**system** location <word255>

**system** name <word32>

#### Parameter

<b>contact</b>	Set host contact	
	<word255>	contact string (word255)
<b>location</b>	Set host location	
	<word255>	location string (word255)
<b>name</b>	Set host name	
	<word32>	name string (word32)

#### Example

```
C62-050-30-B(config)# system contact "Contact here"  
C62-050-30-B(config)#
```

### 4-1.33 username

Enable telnet server.

#### Syntax

**username** WORD<0-32> {<encrypted>|<password>} <PASSWORD>

#### Example

```
C62-050-30-B(config)# username "user_1" password "pwd_1"  
C62-050-30-B(config)#
```

### 4-1.34 vlan

VLAN configuration.

#### Syntax

**vlan** <vlan\_list>

#### Parameter

<vlan_list>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094
-------------	---

#### Example

```
C62-050-30-B(config)# vlan 3,6-8
C62-050-30-B(config)#
```

### 4-1.35 dido

Digital I/O Configuration.

#### Syntax

**dido** di {<abnormal>|<normal>} event-description <event\_description>

**dido** di normal-mode {<high>|<low>}

**dido** di trigger-mode {<off>|<on>}

**dido** do auto-recovery

**dido** do mode {<close>|<open>}

**dido** do normal-mode {<close>|<open>}

**dido** do pulse-duration <1-300>

**dido** do value> {<close>|<open>}

#### Parameter

<b>di</b>	Digital Input (DI) Configuration		
	abnormal / normal	DI Abnormal Event Description Configuration / DI Abnormal Event Description Configuration	
		event-description	DI event Configuration
		event_description	DI event description
	normal-mode	DI Normal Mode Configuration	
high		Define DI High as Normal Mode	

		low	Define DI Low as Normal Mode
	trigger-mode	DI trigger mode configuration	
		off	Off
		on	On
<b>do</b>	Digital Output (DO) Configuration		
	auto-recovery	DO auto recovery	
	mode	DO Normal Mode Configuration	
		close	Define DO Close as Normal Mode
		open	Define DO Open as Normal Mode
	normal-mode	DO Normal Mode Configuration	
		close	Define DO Close as Normal Mode
		open	Define DO Open as Normal Mode
	pulse-duration	Timer interval with the number of seconds	
		<1-300>	Timer interval range in seconds
	value	DO Normal Mode Configuration	
		close	Define DO Close as Normal Mode
		open	Define DO Open as Normal Mode

### Example

```
C51-244-30-370 (config) # dido do auto-recovery
C51-244-30-370 (config) #
```

Copy from source to destination.

### Syntax

```
copy backup-config {<running-config>|<startup-config>|<tftp://server/path-to-file>}
```

```
copy flash:image {<flash:image>|<tftp://server/path-to-file>}
```

```
copy running-config {< backup-config>|<startup-config>|<tftp://server/path-to-file>}
```

```
copy startup-config {<running-config>|<backup-config>|<tftp://server/path-to-file>}
```

```
copy tftp://server/path-to-file {<backup-config>|<flash:image>|<running-config>|<startup-config>|<tftp://server/path-to-file>}
```

### Parameter

<b>backup-config</b>	Backup configuration.
<b>flash:image</b>	Copy from flash: file system
<b>running-config</b>	Running configuration
<b>startup-config</b>	Startup configuration
<b>tftp://server/path-to-file</b>	Copy from tftp: file system

### Example

```
C62-050-30-B# copy tftp://192.168.137.100/vmlinux.bix flash://image
Downloading file. Please wait...
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Correct FW[C62-050-30-B_v1.2.3.7] for model[C62-050-30-B]
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Upgrade firmware success. Do you want to reboot now? (y/n)y
```

Table : DEBUG Commands

Command	Function
acl	acl
igmp	igmp
l2	l2
lag	lag
lldp	lldp
platform	platform
power	power-over-ethernet configuration
psecure	port security
spanning-tree	spanning-tree configuration
time	time
vlan	vlan

Delete a file from the flash file system.

### Syntax

```
delete {<backup-config>|<flash:image>|<startup-config>|<system>}
```

### Parameter

<b>backup-config</b>	Backup configuration.	
<b>flash:image</b>	Delete a file from the flash file system	
<b>startup-config</b>	Startup configuration	
<b>system</b>	Run time firmware image	
	<b>image0</b>	Runtime image 0
	<b>image1</b>	Runtime image 1

### Example

```
C62-050-30-B# delete flash://startup-config
Delete flash://startup-config [y/n] y
*Dec 04 2020 11:10:35: %SYSTEM-5: System restore to default
Do you want to reload the system to take effect? [y/n]
```

Turn off privileged mode command.

### Syntax

**disable**

### Example

```
C62-050-30-B# disable
```

End current mode and change to enable mode.

### Syntax

**end**

### Example

```
C62-050-30-B# end
```

Exit current mode and back to previous mode.

### Syntax

**exit**

### Parameter

### Example

```
C62-050-30-B# exit
```

Turn off debug mode.

### Syntax

```
no debug {<acl>|<igmp>|<l2>|<lag>|<lldp>|<platform>|<power>|<psecure>|<spanning-tree>|<time>|<vlan>}
```

### Parameter

**Table : DEBUG Commands**

Command	Function
acl	acl
igmp	igmp
l2	l2
lag	lag
lldp	lldp
platform	platform
psecure	port security
spanning-tree	spanning-tree configuration
time	time
vlan	vlan

### Example

```
C62-050-30-B# no debug l2
```

Send ICMP ECHO\_REQUEST to network hosts

### Syntax

```
ping {<ipv4_addr>|<HOSTNAME>|<ipv6_addr>} {<cr>|<count>} <1-65535>
```

### Parameter

<ipv4_addr>	Valid ipv4 address.
HOSTNAME	Host name
<ipv6_addr>	Valid ipv6 address.

### Example

```
C62-050-30-B# ping 1.1.1.1 count 2
PING 1.1.1.1 (1.1.1.1): 56 data bytes
64 bytes from 1.1.1.1: icmp_seq=0 ttl=54 time=20.0 ms
64 bytes from 1.1.1.1: icmp_seq=1 ttl=54 time=10.0 ms

--- 1.1.1.1 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 10.0/15.0/20.0 ms
C62-050-30-B#
```

Halt and perform a warm restart.

### Syntax

**reboot**

### Example

```
C62-050-30-B# reboot
*Dec 04 2020 14:11:15: %SYSTEM-4: System reboot
```

Restore to default.

### Syntax

**restore-defaults**

**restore-defaults** keep ip

### Parameter

<b>keep</b>	Keep configuration options	
	ip	IP Configuration

### Example

```
C62-050-30-B# restore-defaults
*Dec 04 2020 14:12:25: %SYSTEM-5: System restore to default
System: restore factory defaults. Do you want to reboot now? (y/n)y
Rebooting now...
```

Save running configuration to flash.

### Syntax

**save**

### Example

```
C62-050-30-B# save
```

Table : SHOW Commands

Command	Function
backup-config	Backup configuration
bootvar	Show boot attributes
cable-diag	Cable Diagnostics
clock	Display the time and date from the system clock
cpu	Displays information about the system CPU utilization
custom	Custom Module configuration
debugging	Debugging information
dos	DoS information
errdisable	Error Disable
fiber-transceiver	Fiber ports diagnostics
flash	Flash Operations
history	List the last several history commands
info	Basic information
interfaces	Interface status and configuration
ip	IP information
ipv6	IPv6 information
lACP	LACP Configuration
lag	Link Aggregation Group Configuration
line	To identify a specific line for configuration
lldp	LLDP information
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
memory	Memory statistics
mirror	Mirror configuration
ntp	Simple Network Time Protocol (NTP) information
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration
running-config	Running configuration

smtp	SMTP information
snmp	SNMP information
spanning-tree	Show spanning tree information
startup-config	Startup configuration
storm-control	Storm control configuration
username	Local User
users	Display information about users
version	System hardware and software status
vlan	VLAN configuration

---

## 16-1 backup-config

Backup configuration

### Syntax

```
show backup-config
```

### Example

```
C62-050-30-B# show backup-config
```

## 16-2 bootvar

Boot attributes.

### Syntax

```
show bootvar
```

### Example

```

C62-050-30-B# show bootvar
Image Version          Date                Status          File Name
-----
0      C62-050-30-B_v2.0.1.3_vk  2022-01-11 13:52:13  Active*
1      C62-050-30-B_v2.0.1.3_vk  2022-01-11 13:52:13  Not active

"*" designates that the image was selected for the next boot
C62-050-30-B#

```

## 16-3 cable-diag

Cable Diagnostics.

### Syntax

```
show cable-diag interfaces GigabitEthernet <port_list>
```

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z

### Example

```

C62-050-30-B# show cable-diag interfaces GigabitEthernet 1
Port  | Speed | Local pair | Pair length | Pair status
-----+-----+-----+-----+-----
  g1l  | auto  |   Pair A  |    0.52    |   Open
        |       |   Pair B  |    0.50    |   Open
        |       |   Pair C  |    0.51    |   Open
        |       |   Pair D  |    0.51    |   Open
C62-050-30-B#

```

## 16-4 clock

The time and date from the system clock.

### Syntax

```
show clock {<cr>|<detail>}
```

### Parameter

<b>detail</b>	Show timezone and summertime configuration
---------------	--

### Example

```
C62-050-30-B# show clock
2022-01-01 08:35:52
Time set manually
C62-050-30-B# show clock detail
2022-01-01 08:35:59
Time set manually
Time zone:
Acronym is
Offset is UTC+8
C62-050-30-B#
```

## 16-5 cpu

CPU information.

### Syntax

```
show cpu input rate
```

```
show cpu utilization
```

### Parameter

<b>input</b>	Show rate of input frames to CPU.	
	rate	Show rate of input frames to CPU
<b>utilization</b>	Displays information about the system CPU utilization	

### Example

```
C62-050-30-B# show cpu input rate
Input Rate to CPU is 0 pps
C62-050-30-B# show cpu utilization
CPU utilization
-----
Current: 53%
C62-050-30-B#
```

## 16-6 custom

Custom Module configuration.

### Syntax

**show** custom enable

**show** custom enable interface GigabitEthernet <port\_list>

**show** custom enable interface LAG <lag\_list>

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
		<lag_list>	LAG List X-Y,Z

### Example

```
C62-050-30-B# show custom enable interfaces GigabitEthernet 3,6-8
  Port | Status
-----+-----
    gi3 | disabled
    gi6 | disabled
    gi7 | disabled
    gi8 | disabled
C62-050-30-B#
```

## 16-7 debugging

Debugging information.

### Syntax

**show** debugging

### Example

```
C62-050-30-B# show debugging
C62-050-30-B#
```

## 16-8 dos

DoS information.

### Syntax

**show** dos

**show** dos interface GigabitEthernet <port\_list>

**show** dos interface LAG <lag\_list>

## Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
		<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z

## Example

```
C62-050-30-B# show dos
  Type                               | State (Length)
-----+-----
  DMAC equal to SMAC                 | enabled
  Land (DIP = SIP)                   | enabled
  UDP Blat (DPORT = SPORT)           | enabled
  TCP Blat (DPORT = SPORT)           | enabled
  POD (Ping of Death)                | enabled
  IPv6 Min Fragment Size              | enabled (1240 Bytes)
  ICMP Fragment Packets               | enabled
  IPv4 Ping Max Packet Size           | enabled (512 Bytes)
  IPv6 Ping Max Packet Size           | enabled (512 Bytes)
  Smurf Attack                        | enabled (Netmask Length: 0)
  TCP Min Header Length               | enabled (20 Bytes)
  TCP Syn (SPORT < 1024)              | enabled
  Null Scan Attack                    | enabled
  X-Mas Scan Attack                   | enabled
  TCP SYN-FIN Attack                  | enabled
  TCP SYN-RST Attack                  | enabled
  TCP Fragment (Offset = 1)           | enabled
C62-050-30-B#
```

## 16-9 errdisable

Error Disable.

## Syntax

**show errdisable recovery**

### Example

```
C62-050-30-B# show errdisable recovery
ErrDisable Reason      | Timer Status
-----+-----
          bpduguard | disabled
          selfloop  | disabled
    broadcast-flood | disabled
unknown-multicast-flood | disabled
          unicast-flood | disabled
              acl | disabled
    psecure-violation | disabled
      dhcp-rate-limit | disabled
          arp-inspection | disabled

Timer Interval : 300 seconds

Interfaces that will be enabled at the next timeout:

Port | Error Disable Reason      | Time Left
-----+-----+-----
C62-050-30-B#
```

## 16-10 fiber-transceiver

Fiber ports diagnostics.

### Syntax

**show fiber-transceiver interfaces GigabitEthernet <port\_list>**

### Parameter

<b>interfaces</b>	Interface status and configuration	
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure

		<b>&lt;port_list&gt;</b>	Port List X-Y,Z
--	--	--------------------------	-----------------

### Example

```

C62-050-30-B# show fiber-transceiver interfaces GigabitEthernet 1-5
Port | Temperature | Voltage      | Current      | Output power | Input power |
OE-Present | LOS
      | [C]          | [Volt]       | [mA]         | [mWatt]      | [mWatt]     |
=====
=====
gi1  |
gi2  |
gi3  |
gi4  |
gi5  |

Temp      - Internally measured transceiver temperature
Voltage   - Internally measured supply voltage
Current   - Measured TX bias current
Output Power - Measured TX output power in milliWatts
Input Power - Measured RX received power in milliWatts
OE-Present - SFP Presetn or Not Present
LOS       - Loss of signal
N/A - Not Available, N/S - Not Supported, W - Warning, E - Error
C62-050-30-B#

```

## 16-11 flash

Flash Operations.

### Syntax

**show flash**

### Example

```
C62-050-30-B# show flash
```

File Name	File Size	Modified
-----	-----	-----
startup-config	948	2022-01-01 00:08:49
ssl_cert	1277	2022-01-01 00:00:59
image0 (active)	10448078	2022-01-11 13:52:13
image1 (backup)	10448078	2022-01-11 13:52:13

```
C62-050-30-B#
```

## 16-12 history

Show CLI command history.

### Syntax

```
show history
```

### Example

```
C62-050-30-B# show history
Maximun History Count: 128
-----
1. conf
C62-050-30-B#
```

## 16-13 info

Basic information.

### Syntax

```
show info
```

### Example

```

C62-050-30-B# show info
System Name      : C62-050-30-B
System Location  :
System Contact   :
MAC Address      : 68:8D:B6:01:02:03
IP Address       : 192.168.11.59
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date    : Jan 10 2023 - 03:46:30
System Object ID : 1.3.6.1.4.1.58360.100.10
System Up Time   : 0 days, 2 hours, 5 mins, 50 secs
C62-050-30-B#

```

## 16-14 interface

Interface status and configuration.

### Syntax

**show** interfaces GigabitEthernet <port\_list> {<cr>|<protected>|<status>}

**show** interfaces LAG <lag\_list> {<cr>|<protected>|<status>}

**show** interfaces switchport GigabitEthernet <port\_list>

**show** interfaces switchport LAG <lag\_list>

### Parameter

<b>interfaces</b>	Interface status and configuration			
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure		
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z	
			<b>protected</b>	Configure an interface to be a protected port
			<b>status</b>	Port status information
<b>LAG</b>	IEEE 802.3 Link Aggregation interface			

		<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z		
			protected	Configure an interface to be a protected port	
			status	Port status information	
	<b>switchport</b>	Set switching mode characteristics			
		<b>GigabitEthernet</b>	Gigabit ethernet interface to configure		
			<b>&lt;port_list&gt;</b>	Port List X-Y,Z	
		<b>LAG</b>	IEEE 802.3 Link Aggregation interface		
			<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z	

### Example

```
C62-050-30-B# show interfaces GigabitEthernet 2-3 status
Port Status Duplex Speed Type
gi2 notconnect auto auto Copper
gi3 notconnect auto auto Copper
C62-050-30-B#
```

## 16-15 ip

Internet Protocol.

### Syntax

**show ip**

**show ip dhcp** {<cr>|<server>}

**show ip http**

**show ip https**

**show ip igmp filter**

**show ip igmp filter interfaces** GigabitEthernet <port\_list>

**show ip igmp filter interfaces** LAG <lag\_list>

**show ip igmp max-group**

**show ip igmp max-group action** {<cr>|interfaces GigabitEthernet <port\_list>|interfaces LAG <lag\_list>}

**show ip igmp max-group interfaces GigabitEthernet <port\_list>**

**show ip igmp max-group interfaces LAG <lag\_list>**

**show ip igmp profile {<cr>|<1-128>}**

**show ip igmp snooping {<cr>|<forward-all>|<groups>|<querier>|<router>|<vlan>}**

#### Parameter

<b>dhcp</b>	DHCP information		
	<b>server</b>	DHCP Server	
<b>http</b>	HTTP server configuration		
<b>https</b>	HTTPS server configuration		
<b>igmp</b>	Interface status and configuration		
	<b>filter</b>	IGMP port filter	
	<b>max-group</b>	IGMP port group limit num	
	<b>profile</b>	IGMP profile configuration	
	<b>snooping</b>	IGMP Snooping Configuration	
		<forward-all>	IPv4 forward all
		<groups>	IPv4 multicast groups
		<querier>	Querier information
<router>		IPv4 multicast routers	
<vlan>	VLAN configuration		

#### Example

```
C62-050-30-B# show ip dhcp server
DHCP Server State : disabled
Start IPv4 Address: 0.0.0.0
End   IPv4 Address: 0.0.0.0
Client Lease Time : 86400 seconds
C62-050-30-B#
```

## 16-16 ipv6

IPv6 configuration commands.

## Syntax

```
show ipv6
```

## Example

```
C62-050-30-B# show ipv6
##### Config #####
    State: enabled
    Auto Config: enabled
    DHCPv6: disabled
    Gateway: ::

##### Status #####
    IP Address: fe80::6a8d:b6ff:fe00:0/64
    Default Gateway: ::
C62-050-30-B#
```

## 16-17 lacp

Lacp configuration.

## Syntax

```
show lacp
```

## Example

```

C62-050-30-B# show lacp
Status: C - current, E - expired, D - defaulted
       a - attached, d - detached
State: A - activity,      T - timeout(fast), G - aggregation
       S - synchronized, C - collecting,      D - distributing
       F - defaulted,    E - expired

LAG Port  Status          Sys ID          Port ID Sys Pri Port Pri Key      State
-----
C62-050-30-B#

```

## 16-18 lag

Link Aggregation Group Configuration.

### Syntax

**show lag**

### Example

```

C62-050-30-B# show lag
Load Balancing: src-dst-mac.

```

Group ID	Type	Ports
1	-----	
2	-----	
3	-----	
4	-----	
5	-----	
6	-----	
7	-----	
8	-----	

```

C62-050-30-B#

```

## 16-19 line

A specific line for configuration.

### Syntax

```
show line {<cr>|<console>|<ssh>|<telnet>}
```

### Parameter

<b>console</b>	Access CLI from console
<b>ssh</b>	Access CLI from ssh
<b>telnet</b>	Access CLI from telnet

### Example

```
C62-050-30-B# show line
Console =====
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
Telnet =====
  Telnet Server   : disabled (23)
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
SSH =====
  SSH Server      : disabled (22)
  Session Timeout : 0 (minutes)
  History Count   : 128
  Password Retry  : 0
  Silent Time     : 0 (seconds)
C62-050-30-B#
```

## 16-20 lldp

show lldp configuration.

### Syntax

**show lldp**

**show lldp interface GigabitEthernet <port\_list>**

**show lldp interface GigabitEthernet <port\_list> {<local-device>|<neighbor>|<statistics>|<tlvs-overloading>}**

**show lldp local-device**

**show lldp neighbor**

**show lldp statistics**

### Parameter

<b>interfaces</b>	Interface status and configuration			
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure		
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z	
			local-device	LLDP information that is advertised from a specific port
			neighbor	Information about neighboring devices discovered using Link Layer Discovery Protocol
			statistics	LLDP Statistics information
tlvs-overloading	LLDP TLVs overloading information			
<b>local-device</b>	LLDP information that is advertised from a specific port			
<b>neighbor</b>	Information about neighboring devices discovered using Link Layer Discovery Protocol			
<b>statistics</b>	LLDP Statistics information			

### Example

```
C62-050-30-B# show lldp neighbor
```

```
Port | Device ID          | Port ID          | SysName          | Capabilities | TTL
-----+-----+-----+-----+-----+-----
gi8  | 00:68:8D:B6:51:04 |                  | H51-044-90-250  | Bridge      | 117
C62-050-30-B#
```

## 16-21 logging

Log Configuration.

### Syntax

```
show logging
```

```
show logging {<buffered>|<file>|<event>}
```

### Parameter

<b>buffered</b>	Buffered logging
<b>file</b>	File logging
<b>event</b>	Display syslog class of event enable or disable

### Example

```

C62-050-30-B# show logging

Logging service is enabled

Console Logging: level notice
Buffer Logging : level notice
File Logging   : disabled

Buffer Logging
-----
*Jan 01 2000 00:00:31: SYSTEM-5: New console connection for user admin,
source async ACCEPTED
*Jan 01 2000 00:00:26: PORT-5: Interface GigabitEthernet10 link up
*Jan 01 2000 00:00:15: PORT-5: Interface GigabitEthernet9 link up
*Jan 01 2000 00:00:13: SYSTEM-5: Cold startup
C62-050-30-B#

```

## 16-22 loop-prevention

Show loop prevention

### Syntax

**show** loop-prevention

**show** loop-prevention interfaces GigabitEthernet <port\_list>

**show** loop-prevention interfaces LAG <lag\_list>

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	

## Example

```
C62-050-30-B# show loop-prevention
Loop Prevention:                Disabled
Loop Prevention Tx Interval:    2
Loop Prevention Recovery Interval: 16
Loop Prevention switch_priority: 0x800000
Loop Prevention hop cnt max:    10
Loop Prevention is root:       True
Loop Prevention Root Port:     N/A

C62-050-30-B#
```

## 16-23 mac

Mac Address Table information.

### Syntax

**show** mac address-table {<cr>|<aging-time>|<counters>|<dynamic>|<static>}

**show** mac address-table interface (GigabitEthernet <port\_list> | LAG <lag\_list>)

**show** mac address-table vlan <vlan\_id>

**show** mac address-table vlan <vlan\_id> interface (GigabitEthernet <port\_list> | LAG <lag\_list>)

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
		<b>&lt;lag_list&gt;</b>	LAG List X-Y,Z

### Example

```

C62-050-30-B# show mac address-table
VID | MAC Address          | Type           | Ports
-----+-----+-----+-----
  1 | 68:8D:B6:00:00:00 | Management     | CPU
  1 | 00:33:33:33:33:33 | Dynamic        | gi15
  1 | 94:C6:91:FA:13:05 | Dynamic        | gi11
  1 | F0:2F:74:0A:D8:CC | Dynamic        | gi11

Total number of entries: 4
C62-050-30-B#

```

## 16-24 management-vlan

Management VLAN configuration.

### Syntax

```
show management-vlan
```

### Example

```

C62-050-30-B# show management-vlan
  Management VLAN-ID : default(1)
C62-050-30-B#

```

## 16-25 memory

Memory statistics

### Syntax

```
show memory statistics
```

### Parameter

<b>statistics</b>	Memory statistics
-------------------	-------------------

## Example

```
C62-050-30-B# show memory statistics
      total (KB)    used (KB)    free (KB)    shared (KB)    buffer (KB)    cache (KB)
-----+-----+-----+-----+-----+-----
Mem:      125836      43608      82228         0         0         0
-/+ buffers/cache:      43608      82228
Swap:         0         0         0
C62-050-30-B#
```

## 16-26 mirror

Show mirror configuration

### Syntax

**show** mirror

**show** mirror session > <1-4>

### Example

```
C62-050-30-B# show mirror

Session 1 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 2 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 3 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 4 Configuration
Mirrored source   : Not Config
Destination port  : Not Config
C62-050-30-B#
```

## 16-27 ntp

Simple Network Time Protocol (NTP) information.

### Syntax

```
show ntp
```

### Example

```
C62-050-30-B# show ntp
NTP is Disabled
NTP Server address:
NTP Server port: 123
C62-050-30-B#
```

## 16-28 port-security

show port security.

### Syntax

**show port-security** {<cr>|<address>}interface GigabitEthernet <port\_list>

### Parameter

<b>address</b>	All port security related MAC addresses		
<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z

### Example

```
C62-050-30-B# show port-security
Port Security: Disabled
Rate Limit: 100 pps
C62-050-30-B#
```

## 16-29 power

Power over Ethernet (PoE) configuration.

### Syntax

**show power** inline

**show power** inline consumption

**show power** inline consumption interface GigabitEthernet <port\_list>

**show power** inline interface GigabitEthernet <port\_list>

### Parameter

<b>inline</b>	Inline Power			
	<b>consumption</b>	Power consumption		
		interfaces	Interface status and configuration	
			<b>GigabitEthernet</b>	Gigabit ethernet interface to configure
	<b>&lt;port_list&gt;</b>	Port List X-Y,Z		
	<b>interfaces</b>	Interface status and configuration		
<b>GigabitEthernet</b>		Gigabit ethernet interface to configure		
<b>&lt;port_list&gt;</b>		Port List X-Y,Z		

### Example

```
C62-050-30-B# show power inline interfaces GigabitEthernet 1
Port State Status      Priority Class  Max.Power (Admin) Device
                                     (mW)
-----
g11 Auto  searching high     class0 30000 (30000)  N/A

Port Overload      Short Current  Power Denied  MPS Absent      Invalid Sig.
-----
g11 0              0              0              0              0
C62-050-30-B#
```

## 16-30 qos

Show Quality of Service configuration.

### Syntax

**show qos**

**show qos** interface GigabitEthernet <port\_list>

**show qos** interfaces LAG <lag\_list>

**show qos** map {<cr>|<cos-queue>|<dscp-queue>|<precedence-queue>|

<queue-cos>|<queue-dscp>|<queue-precedence>}

**show qos** queueing

## Parameter

<b>interfaces</b>	Interface status and configuration	
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure
		<b>&lt;port_list&gt;</b>   Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface
<b>&lt;lag_list&gt;</b>   LAG List X-Y,Z		
<b>map</b>	Configure the QoS maps	
	cos-queue	CoS to Queue mapping
	dscp-queue	DSCP to Queue mapping
	precedence-queue	IP Precedence to Queue mapping
	queue-cos	Queue to CoS mapping
	queue-dscp	Queue to DSCP mapping
	queue-precedence	Queue to IP Precedence mapping
<b>queueing</b>	Display quality of service (QoS) queuing information	

## Example

```
C62-050-30-B# show qos
QoS Mode: basic
Basic trust: cos
C62-050-30-B#
```

## 16-31 running-config

Running configuration.

### Syntax

**show running-config**

**show running-config** interface GigabitEthernet <port\_list>

**show running-config** interface LAG <lag\_list>

### Example

```
C62-050-30-B# show running-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: AETEK PoE SW C62-050-30-B Switch
! System Version: v2.0.1.3_vk
! System Name: C62-050-30-B
! System Up Time: 0 days, 5 hours, 40 mins, 32 secs
!
!
!
system name "C62-050-30-B"
ip address 192.168.11.199 mask 255.255.255.0
ip default-gateway 192.168.11.1
username "admin" encrypted password
MjEyMzJmMjk3YTU3YTZhNzQzODk0YTBlNGE4MDFmYzM=
!
!
!
!
!
!
spanning-tree mst configuration
  name "68:8D:B6:00:00:00"
!
!
!
!
--More--
C62-050-30-B#
```

## 16-32 smtp

Display SMTP configurations.

### Syntax

**show smtp**

**show smtp event**

#### Parameter

<b>event</b>	Display smtp class of event enable or disable
--------------	---

#### Example

```
C62-050-30-B# show smtp event
SMTP auth failed event : Enable
SMTP linkUpDown event  : Enable
SMTP cold-start event  : Enable
SMTP warm-start event  : Enable
SMTP D/I event         : Enable
SMTP D/O event         : Enable
SMTP PoE PD On/Off event: Enable
SMTP PoE PD Fault event : Enable
C62-050-30-B#
```

## 16-33 snmp

Display SNMP configurations.

#### Syntax

**show snmp**

**show snmp** {<community>|<engineid>|<group>|<host>|<trap>|<user>|<view>}

#### Parameter

<b>community</b>	Display snmp class of trap enable or disable
<b>engineid</b>	Display snmp class of trap enable or disable
<b>group</b>	Display snmp class of trap enable or disable
<b>host</b>	Display snmp class of trap enable or disable
<b>trap</b>	Display snmp class of trap enable or disable
<b>user</b>	Display snmp class of trap enable or disable

<b>view</b>	Display snmp class of trap enable or disable
-------------	--

### Example

```
C62-050-30-B# show snmp
SNMP is disabled.
Community Name          Access Right
-----
Total Community Entries: 0
Server                  Community Name  Notification Version  Notification Type
-----
Total Trap Entries: 0
C62-050-30-B#
```

## 16-34 spanning-tree

Show spanning tree protocol configuration.

### Syntax

**show spanning-tree**

**show spanning-tree** brief

**show spanning-tree** interface {GigabitEthernet <port\_list> | LAG <lag\_list>}

**show spanning-tree** interface {GigabitEthernet <port\_list> | LAG <lag\_list>} statistics

**show spanning-tree** mst <0-15>

**show spanning-tree** mst <0-15> interface {GigabitEthernet <port\_list> | LAG <lag\_list>}

**show spanning-tree** mst configuration

### Parameter

<b>brief</b>	Displays spanning-tree brief information
<b>interfaces</b>	Interface status and configuration

	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure			
		<port_list>	Port List X-Y,Z		
			statistics	Statistics for specified ports	
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface			
<lag_list>		LAG List X-Y,Z			
		statistics	Statistics for specified ports		
<b>mst</b>	Multiple spanning trees				
	<0-15>	Instance ID (0~15)			
		<b>interfaces</b>	Interface status and configuration		
			<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
				<port_list>	Port List X-Y,Z
			<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
				<lag_list>	LAG List X-Y,Z
configuration	MST current region configuration				

**Example**

```

C62-050-30-B# show spanning-tree
Spanning tree enabled mode MSTP
Default port cost method: long
Gathering information .....
##### MST 0 Vlans Mapped:
CST Root ID   Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is root for CST and IST master
              Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
              Max hops   20

Name         State   Prio.Nbr  Cost   Sts   Role EdgePort   Type
-----
##### MST 1 Vlans Mapped: 1-4094
Root ID      Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is the regional Root

Interfaces
Name         State   Prio.Nbr  Cost   Sts   Role EdgePort   Type
-----
gi7         enabled  128.7     20000  Frw  Desg  No         P2P Intr
gi8         enabled  128.8     20000  Blk  Bckp  No         P2P Intr
C62-050-30-B# show spanning-tree mst 1 interfaces GigabitEthernet 2
MST Port Information
=====
Instance Type : MSTI (1)
-----
Port Identifier : 128/2
Internal Path-Cost : 0 /20000
-----
Regional Root Bridge : 0/00:00:00:00:00:00
Internal Root Cost : 0
Designated Bridge : 0/00:00:00:00:00:00
Internal Port Path Cost : 20000
Port Role : Disabled
Port State : Disabled
-----
C62-050-30-B#

```

## 16-35 startup-config

Startup configuration.

### Syntax

```
show startup-config
```

### Example

```

C62-050-30-B# show startup-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: AETEK PoE SW C62-050-30-B Switch
! System Version: v2.03.04cu
! System Name: C62-050-30-B
! System Up Time: 0 days, 0 hours, 1 mins, 54 secs
!
!
!
system name "C62-050-30-B"
ip address 192.168.11.59 mask 255.255.255.0
ip default-gateway 192.168.11.254
ip dhcp server lease-time 0
username "admin" encrypted password OGM5NzY3N2U3Y2YyNWMwNzVknWEwZjhjOTA3ZGFhY2E=
!
!
!
!
!
power inline force-mode disable
spanning-tree mst configuration
name "68:8D:B6:00:00:00"
!
!
!
--More--
C62-050-30-B#

```

## 16-36 storm-control

show storm-control configuration.

### Syntax

**show storm-control**

**show storm-control** interfaces GigabitEthernet <port\_list>

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<b>&lt;port_list&gt;</b>	Port List X-Y,Z

### Example

```
C62-050-30-B# show storm-control interfaces GigabitEthernet 1-5
```

```
Port   | State | Broadcast | Unkown-Multicast | Unknown-Unicast |
Action
        |      | kbps      | kbps              | kbps              |
-----+-----+-----+-----+-----+-----
-|------
  gi1   | disable Off( 10000) Off( 10000) Off( 10000)
Drop
  gi2   | disable Off( 10000) Off( 10000) Off( 10000)
Drop
  gi3   | disable Off( 10000) Off( 10000) Off( 10000)
Drop
  gi4   | disable Off( 10000) Off( 10000) Off( 10000)
Drop
  gi5   | disable Off( 10000) Off( 10000) Off( 10000)
Drop

C62-050-30-B#
```

## 16-37 username

Local user information.

### Syntax

**show username**

### Example

```
C62-050-30-B# show username
Priv | Type | User Name | Password
-----+-----+-----+-----
admin | secret | admin | MjEyMzJmMjk3YTU3YTVhNzQzODk0YTBlNGE4MDFmYzM=
C62-050-30-B#
```

## 16-38 users

Information about users.

### Syntax

**show users**

### Example

```
C62-050-30-B# show users
Username Protocol Location
-----+-----+-----
admin console 0.0.0.0
C62-050-30-B#
```

## 16-39 version

System hardware and software status.

### Syntax

**show version**

### Example

```

C62-050-30-B# show version
Loader Version : 2.0.0.1
Loader Date    : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date  : Jan 10 2023 - 03:46:30
C62-050-30-B#

```

## 16-40 vlan

VLAN information.

### Syntax

**show vlan**

**show vlan** <VLAN-LIST>

**show vlan** <VLAN-LIST> interfaces GigabitEthernet <port\_list> membership

**show vlan** <VLAN-LIST> interfaces LAG <lag\_list> membership

**show vlan** dynamic

**show vlan** static

### Parameter

<b>interfaces</b>	Interface status and configuration		
	<b>GigabitEthernet</b>	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	<b>LAG</b>	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	
<b>dynamic</b>	Display dynamic entries		
<b>static</b>	Display static entries		

### Example

```
C62-050-30-B# show vlan
```

```
VID | VLAN Name | Untagged Ports | Tagged Ports | Type  
-----+-----+-----+-----+-----  
1 | default | gi1-28,lag1-8 | --- | Default  
C62-050-30-B#
```

Setup SSL host keys.

### Syntax

**ssl**

### Parameter

### Example

```
C62-050-30-B# ssl
Generating a RSA private key
. ....+++++
. ....+++++
writing new private key to '/mnt/ssh/ssl_key.pem_tmp'
-----
C62-050-30-B#
```

Terminal configuration.

### Syntax

**terminal length** <0-24>

### Parameter

<b>length</b>	Terminal length	
	<0-24>	Length value. 0 means no limit

### Example

```
C62-050-30-B# terminal length 24
```

Trace route to network hosts.

### Syntax

**traceroute** <hostname>

**traceroute** <hostname> max\_hop <2-255>

### Parameter

hostname	The IP address or hostname address to trace		
	max_hop	The number of maximum hop.(Default:30)	
		<2-255>	Maximum hop range

### Example

```
C62-050-30-B# traceroute 1.1.1.1 max_hop 2
traceroute to 1.1.1.1 (1.1.1.1), 2 hops max, 38 byte packets
 1 192.168.11.1 (192.168.11.1) 0.000 ms 0.000 ms 0.000 ms
 2 10.135.91.1 (10.135.91.1) 0.000 ms 0.000 ms 0.000 ms
C62-050-30-B#
```