Cisco Remote PHY Shelf 7200 Command Reference

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CONTENTS

Introduction

This guide describes the Cisco IOS command-line interface (CLI) commands used in Cisco Smart PHY 7200. There are four types of CLI: Fan Control Card (FCC) CLI, Cisco Smart PHY 7200 Line Card CLI, Primary eRPD CLI, and Non-Primary eRPD CLI. See the following table for the details.

CLI Type	How to Access	Example Display
FCC CLI	Connect to the console port on the Fan Control Card.	`HA-Shelf-FCC#`
Line Card CLI	Connect to the console port on the line card.	`HA-Shelf-Slot-0#`

Primary and Non-Primary eRPD CLI	Connect to the console port on the cBR-8 router, and SSH to eRPD
	OR
		`Router#show cable rpd`
		`Load for five secs: 3%/0%; one minute: 7%; five minutes: 7%`
		`Time source is user configuration, 15:12:08.534 CST Mon Nov 26 2018`
		
		`MAC Address IP Address I/F State Role HA Auth Name`
		`7abd.44f9.0020 92.14.11.16 Te7/1/1 online Pri Act N/A slot0-0`
		`7abd.44f9.0021 92.14.12.16 Te7/1/2 online Pri Act N/A slot0-1`
		`7abd.44f9.0022 92.14.13.30 Te7/1/3 online Pri Act N/A slot0-2`
		`7abd.44f9.0023 92.14.14.30 Te7/1/4 online Pri Act N/A slot0-3`
		`7abd.44f9.0024 92.14.15.30 Te7/1/5 online Pri Act N/A slot0-4`
		`7abd.44f9.0025 92.14.16.30 Te7/1/6 online Pri Act N/A slot0-5`
		
		`Router#ssh -l admin 92.14.11.16`
		`HA-Shelf-eRPD-0/0#`

	Connect to the console port on the Fan Control Card, then access the eRPD.	`HA-Shelf-FCC#select erpd slot 0 index 0` `HA-Shelf-eRPD-0/0#`

Introduction

Commands: a through g

bh-erpd-mapping

To configure the Backhaul eRPD mapping, use the **bh-erpd-mapping** command in global configuration mode. To disable the Backhaul eRPD mapping, use the **no** form of the command.

bh-erpd-mapping backhaul *backhaul_id* **erpd** *erpd_id*
no bh-erpd-mapping backhaul

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **bh-erpd-mapping** command to configure the mapping between backhaul and eRPD.

The following example shows how to configure the Backhaul eRPD mapping:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# bh-erpd-mapping backhaul 1 erpd 0
```

clear logging

To clear logging buffer, use the **clear logging** command in privileged EXEC mode.

clear logging [**onboard** | **current** | **message** | **temperature** | **voltage**]

Syntax Description

onboard	Clears the onboard information.
current	Clears the current data.
message	Clears the obfl error message.
temperature	Clears the temperature data.
voltage	Clears the voltage data.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **clear logging** command to clear logging buffer.

The following example shows how to clear logging buffer:

```
HA-Shelf-FCC# clear logging
```

enable password

To create a new password or change an existing password for the privileged command level, use the **enable password** command in privileged EXEC mode. To disable the password, use the **no** form of the command.

enable password *password*
no enable

Syntax Description

password	Unique alphanumeric string of characters.

Command Default

None.

Command Modes

Privileged EXEC (#) (Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This example shows how to enable password for the privileged command level :

```
HA-Shelf-eRPD-0/0# enable password
```

Commands: h through n

hw-module slot

To reload the line card, use the **hw-module slot** command in privileged EXEC mode.

hw-module slot *slot_id* **reload** [**force**]

Syntax Description

force	Proceeds without prompting for a confirmation.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **hw-module slot** command to reload the line card.

The following example shows how to reload the line card:

```
HA-Shelf-FCC# hw-module slot 0 reload force
```

hostname

To configure the chassis hostname, use the **hostname** command in global configuration mode. To remove the chassis hostname, use the **no** form of the command.

hostname prefix *prefix*
no hostname

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **hostname** command to configure the hostname of the chassis.

The following example shows how to configure the hostname of the chassis:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# hostname prefix Shelf
```

link-redundancy

To configure the link redundancy, use the **link-redundancy** command in global configuration mode. To restore link redundancy to the default mode, use the **no** form of the command.

link-redundancy mode *mode_name*
no link-redundancy

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **link-redundancy** command to configure the link redundancy mode N/A, 6+2 or 4+4.

The following example shows how to configure the link redundancy mode:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# link-redundancy mode 6+2
```

logging

To archive the log and send to SSH or TFTP server, use the **logging** command in privileged EXEC mode.

logging all | corefile-archive | kdump-archive | shelfmgr-archive | 1588-archive | provision-archivescp *server_ip user dir* | **tftp** *server_ip dir*

Syntax Description

all	Archive all logs and core files and send to SSH or TFTP server.
corefile-archive	Archive corefile and send to SSH or TFTP server.
kdump-archive	Archive kernel dump and send to SSH or TFTP server.
shelfmgr-archive	Archive shelf manager log and send to SSH or TFTP server.
1588-archive	Archive PTP log and send to SSH or TFTP server.
provision-archive	Archive logs created during RPD provisioning and send to SSH or TFTP server.
scp *server_ip user dir*	Configure the SSH server IP address, user, and destination directory.
tftp *server_ip dir*	Configure the TFTP server IP address and destination directory.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **logging** command to archive the log and send to SSH or TFTP server.

The following example shows how to archive and send the log:

```
HA-Shelf-FCC# logging corefile-archive tftp 10.2.11.2 log
```

logging 1588-archive and provision-archive

To archive PTP logs using tftp, use the **logging 1588-archive** command in privileged EXEC mode.

To archive logs created during RPD provisioning using tftp, use the **logging provision-archive** command in privileged EXEC mode.

logging [1588-archive| provision archive] tftp *server_ip save_path*

Syntax Description

server_ip	IP address of the server where you want to save the log files.
save_path	The path to the directory where you want to save the log files.

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **logging 1588-archive** command for all the line cards:

```
HA-Shelf-Slot-0# logging 1588-archive tftp 198.51.100.1

wait for archiving 1588 logs
Wait for upload archive to server. It would take 3 minutes or more.
RPD logs are saved in
198.51.100.1:$TFTP_DIR/./RPD_1588_0027900a0cf8_LOG_1977-01-08_21_25_26_352484.tar.gz
[Done]
```

This is a sample output of the **logging provision-archive** command for all the line cards:

```
HA-Shelf-Slot-0# logging provision-archive tftp 198.51.100.1

wait for archiving logs
Collect tech-support info...
wait for upload archive to server
RPD provision logs are saved in
198.51.100.1:$TFTP_DIR/./RPD_0027900a0cf8_LOG_1977-01-08_18_20_10_509660.tar.gz
[Done]
```

logging monitor

To view and monitor logs of an RPHY device, use the **logging monitor** command in privileged EXEC mode. To stop monitoring logs, run the **logging monitor off**

logging monitor *rpd*
`logging monitor off`

Syntax Description

rpd	The RPHY device that that you want to montor logs.

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **logging monitor** command for all the line cards:

```
HA-Shelf-Slot-0# logging monitor 5

F02-Shelf-Slot-0#<190>2019-01-08T17:42:17.387337+00:00 RPDBADBAD170C20 INFO
INSTANCE_ID5-CORE-4039283094 Entering state init(ipsec) from state init(gcp-ira), triggered
 by event:TRIGGER_TCP_FAIL.
<190>2019-01-08T17:42:17.389019+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-RCP session: SLAVE:
 120.102.22.109:None --> 120.102.22.37:8190 removing from the list of active sessions.
<187>2019-01-08T17:42:17.390218+00:00 RPDBADBAD170C20 ERR  INSTANCE_ID5-wr_cb() called for
 non existing FD
<190>2019-01-08T17:42:17.391799+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Session closed:
SLAVE: 120.102.22.109:None --> 120.102.22.37:8190 (120.102.22.109:41269 -->
120.102.22.37:8190)
<190>2019-01-08T17:42:17.393092+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-RCP Slave session
 closed: SLAVE: 120.102.22.109:None --> 120.102.22.37:8190
<190>2019-01-08T17:42:17.394438+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-RCP sessions (vbh5,
 120.102.22.37) removed
<190>2019-01-08T17:42:17.395638+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-CORE-4039283094
Remove the gcp session interface vbh5 core_ip 120.102.22.37
<190>2019-01-08T17:42:17.396748+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-CORE-4039283094
interface vbh5 core_ip 120.102.22.37 enter init-spec state retry times 1
<190>2019-01-08T17:42:17.398835+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Session closed:
SLAVE: 120.102.22.109:None --> 120.102.22.37:8190 (None)
<190>2019-01-08T17:42:17.400078+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-RCP Slave session
 closed: SLAVE: 120.102.22.109:None --> 120.102.22.37:8190
<190>2019-01-08T17:42:47.396861+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-CORE-4039283094
Entering state init(tcp) from state init(ipsec), triggered by event:TRIGGER_IPSEC_OK.
<190>2019-01-08T17:42:47.398622+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Adding new session:
 SLAVE: 120.102.22.109:None --> 120.102.22.37:8190
<190>2019-01-08T17:42:47.404158+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Opening GCP session
 SLAVE: 120.102.22.109:None --> 120.102.22.37:8190, AF: 2, Type: 1
<190>2019-01-08T17:42:47.405400+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-GCP session opened:
 SLAVE 120.102.22.109:39775 --> None:None
<190>2019-01-08T17:42:47.406305+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Connecting to the
 GCP master: 120.102.22.37:8190
<190>2019-01-08T17:42:47.407470+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Slave session
```

```
initiate, start connect: SLAVE: 120.102.22.109:None --> 120.102.22.37:8190, state: 254
<190>2019-01-08T17:42:47.408385+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-CORE-4039283094
Add the gcp session interface vbh5 core_ip 120.102.22.37
<190>2019-01-08T17:42:49.389918+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-GCP state changed
 interface vbh5 core_ip 120.102.22.37 triggered by TCP_OK
<190>2019-01-08T17:42:49.392372+00:00 RPDBADBAD170C20 INFO  INSTANCE_ID5-Send notification
 message to rcp: interface: "vbh5"
core_ip: "120.102.22.37"
status: 1
ntf_type: 1
```

login

To configure the login password of the FCC, use the **login** command in global configuration mode. To restore the default value, use the **no** form of the command.

login password *text*
no login

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **login** command to configure the login password of the FCC.

The following example shows how to configure the login password:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# login password Dp*14raR
```

mgmt ip

To configure the FCC management port IP address, use the **mgmt ip** command in global configuration mode. To remove the FCC management port IP address, use the **no** form of the command.

mgmt ip *ipv4_address* **netmask** *netmask_address* **gateway** *gateway_address*
no mgmt

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **mgmt ip** command to configure the FCC management port IP address.

The following example shows how to configure the FCC management port IP address:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# mgmt ip 1.200.1.4 netmask 255.255.255.0 gateway 1.200.1.0
```

Commands: o through t

over-temp-shutdown

To disable the feature of shutting down the card when the temperature is too high, use the **over-temp-shutdown** command in global configuration mode. To restore the feature, use the **no** form of the command.

over-temp-shutdown disable
no over-temp-shutdown

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **over-temp-shutdown** command to disable the over-temperature shut down.

The following example shows how to disable the over-temperature shut down:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# over-temp-shutdown disable
```

select

To connect to eRPD, RPD linecard, or RPD linecard console, use the **select** command in privileged EXEC mode.

select console-linecard slot *slot_id* | | **erpd slot** *slot_id* | **index** *index_id* | | **linecard slot** *slot_id*

Syntax Description

console-linecard	Connect to a specific RPD line card console. **Note** Available in FCC command mode only.
erpd	Connect to a specific eRPD.
linecard	Connect to a specific RPD line card.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **select** command to connect eRPD, RPD linecard, or RPD linecard console.

The following example shows how to connect to RPD line card:

```
HA-Shelf-FCC# select linecard slot 1
```

trunk

To configure the eRPD trunk mode, use the **trunk** command in global configuration mode. To disable the eRPD trunk mode, us the **no** form of the command.

trunk vlan *vlan_index* **slot** *slot_index* **erpd** *erpd_index*
no trunk vlan

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

Usage Guidelines

Use the **trunk** command to configure the eRPD trunk mode.

The following example shows how to configure the eRPD trunk mode:

```
HA-Shelf-FCC# configure terminal
HA-Shelf-FCC(config)# trunk vlan 2 slot 0 erpd 1
```

Commands: show a through show g

show bh-erpd-mapping

To display operation status of the Backhaul eRPD mapping, use the **show bh-erpd-mapping** command in privileged EXEC mode.

show bh-erpd-mapping all | | **slot** *slot_id*

Syntax Description

all	Displays the Backhaul eRPD Mapping of all line cards.
slot *slot_id*	Displays the Backhaul eRPD Mapping of the specific line card.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show bh-erpd-mapping** command for all the line cards:

```
HA-Shelf-FCC# show bh-erpd-mapping all
LC 0 is not up.

LC 1 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5

LC 2 is not up.

LC 3 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5

LC 4 is not up.

LC 5 is not up.

LC 6 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5
```

```
LC 7 is not up.

LC 8 is not up.

LC 9 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5

LC 10 is not up.

LC 11 is not up.

LC 12 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5
```

show clock

To display the system clock, use the **show clock** command in privileged EXEC mode.

show clock

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show clock** command:

```
HA-Shelf-FCC# show clock
17:58:41.630 Wed Dec 26 2018
```

show core-files

To display the core files, use the **show core-files** command in privileged EXEC mode.

show core-files

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show core-files** command:

```
HA-Shelf-eRPD-0/0# show core-files
-rw-r--r--    1 root     root         83106 Dec 21 06:12
20181221.1545372750.rpd_bcm3160.11.11096.hdshelf.V1.1_20181220042051.core.gz
-rw-r--r--    1 root     root         83427 Dec 21 01:15
20181221.1545354927.rpd_bcm3160.11.3162.hdshelf.V1.1_20181220042051.core.gz
-rw-r--r--    1 root     root        106956 Dec  5 18:48
20181205.1544035722.rpd_bcm3160.11.13546.hdshelf.V1.1_20181205084405.core.gz
-rw-r--r--    1 root     root         84364 Dec  2 16:46
20181202.1543769176.rpd_bcm3160.11.29039.hdshelf.V1.1_20181201152215.core.gz
-rw-r--r--    1 root     root         83483 Dec  2 11:00
20181202.1543748402.rpd_bcm3160.11.28414.hdshelf.V1.1_20181201152215.core.gz
-rw-r--r--    1 root     root         84241 Sep 24 23:43
20180924.1537832583.rpd_bcm3160.11.15629.core.gz
-rw-r--r--    1 root     root         84060 Sep 24 12:18
20180924.1537791503.rpd_bcm3160.11.1714.core.gz
-rw-r--r--    1 root     root         83567 Sep 21 22:45
20180921.1537569945.rpd_bcm3160.11.19379.core.gz
-rw-r--r--    1 root     root        158975 Sep 21 18:38
20180921.1537555137.rsyslogd.11.29461.core.gz
-rw-r--r--    1 root     root        169925 Sep 21 18:30
20180921.1537554608.rsyslogd.6.10799.core.gz
-rw-r--r--    1 root     root        176021 Sep 21 18:19
20180921.1537553979.rsyslogd.11.3997.core.gz
drwx------    2 root     root         16384 Sep 11 13:33 lost+found
```

show cpu

To display CPU statistics of the FCC, use the **show cpu** command in privileged EXEC mode.

show cpu all | | **slot** *slot_id*

Syntax Description

all	Displays the CPU usage of all line cards.
slot *slot_id*	Displays the CPU usage of a specific line card.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show cpu** command for all the line cards:

```
HA-Shelf-FCC# show cpu all
Slot  CPU%
1     23
3     35
6     15
9     92
12    43
FCC   3
```

show cpu mtu

To view the maximum transmission unit (MTU) of the interface, use the **show cpu mtu** command in privileged EXEC mode.

show cpu mtu

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show cpu mtu**command:

```
HA-Shelf-Slot-0# show cpu mtu
interface MTU
eth1      1500
```

show cpu rx

To view different packet's DPAA status, use the **show cpu rx** command in privileged EXEC mode. If the packet speed exceeds the threshold, the packet is marked as yellow or red.

To clear the command output, use the **show cpu rx clear** command.

show cpu rx
show cpu rx clear

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show cpu rx** command for all the line cards:

```
HA-Shelf-Slot-0# show cpu rx
TC              RED           YELLOW            GREEN        Flow Types

 0                0                0            10658        Default

 1                0                0                0        ARP(ucast)

 2                0                0            30305        ARP(bcast)

 3                0                0                0        SSH

 4            13561             4592            26235        DHCP

 5                0                0                0        DHCPV6
```

show dhcp

To display the Dynamic Host Configuration Protocol (DHCP) information, use the **show dhcp** command in privileged EXEC mode.

show dhcp

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show dhcp** command:

```
HA-Shelf-eRPD-0/0# show dhcp
Interface  IP-Address      Subnet-Mask
vbh2       120.102.22.111  255.255.255.0

Details:
--------------------------------------------------------------------------------
Interface:                    vbh2
AddrType:                     IPv4
TimeServers:                  10.79.41.66
TimeOffset:                   32400
LogServers:                   20.1.0.33
CCAPCores:                    120.102.22.17, 120.102.22.37
```

show diag eeprom

To display eeprom information of the FCC, use the **show diag eeprom** command in privileged EXEC mode.

show diag eeprom

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show diag eeprom** command:

```
HA-Shelf-FCC# show diag eeprom
MIDPLANE EEPROM data:
  1. Eeprom format version          : 04
  2. Compatiblity Byte              : ff
  3. Controller Type                : 0x0d88
  4. Hardware Version               : 1.0
  5. PCA Part Number                : 73-18737-1
  6. PCA Revision                   : 30 31 00 00
  7. TAN Part Number                : 800-104530-1
  8. TAN Revision Number            : 30 31 00 00
  9. Product Number (PID)           : HA-RPHY-CHASSIS
 10. Version ID (VID)               : V01
 11. CLEI Code                      : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number               : 0
 13. PCB Fab Version                : 01
 14. PCA Serial Number              : FXS220301ME
 15. RMA Test History               : 00
 16. RMA Number                     : 00 00 00 00
 17. RMA History                    : 00
 18. Manufacturing Test Data        : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data          : 00 00 00 00 00 00 00 00
 20. Asset ID                       :
 21. Licensing Transaction ID       : 0
 22. Chassis Serial Number          : 00
 23. Number of Slots                : 0a
 24. Chassis MAC Address            : 7a:bd:44:a1:00:00
 25. Chassis MAC Address Block Size : 04 00

FCC EEPROM data:
  1. Eeprom format version          : 04
  2. Compatiblity Byte              : ff
  3. Controller Type                : 0x0d87
  4. Hardware Version               : 1.0
  5. PCA Part Number                : 73-101405-1
  6. PCA Revision                   : 00 00
  7. TAN Part Number                : 800-104536-1
  8. TAN Revision Number            : 00 00 00 00
  9. Product Number (PID)           : HA-RPHY-FAN-TRAY
 10. Version ID (VID)               : V01
 11. CLEI Code                      : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number               : 0
```

```
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E1F9
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC0 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E001
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC1 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E00Q
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC2 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
```

```
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E002
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC3 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E01J
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC4 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E00C
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

PIC5 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
```

```
  3. Controller Type               : 0x0d86
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18551-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104537-1
  8. TAN Revision Number           : 00 00 00 00
  9. Product Number (PID)          : HA-RPHY-PIC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 43 4f 44 45
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2142E03J
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

Power Module P0 EEPROM data:
  1. Product Identifier (PID)      : CBR-AC-PS
  2. Version Identifier (VID)      : V01
  3. PCB Serial Number             : DTM213100DH
  4. Top Assy. Revision            : A0
  5. CLEI Code                     : CAP1AAAAAA

Power Module P1 EEPROM data:
  1. Product Identifier (PID)      : CBR-AC-PS
  2. Version Identifier (VID)      : V01
  3. PCB Serial Number             : DTM213100DW
  4. Top Assy. Revision            : A0
  5. CLEI Code                     : CAP1AAAAAA

Linecard1 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d84
  4. Hardware Version              : 2.0
  5. PCA Part Number               : 73-18651-2
  6. PCA Revision                  : 31 31
  7. TAN Part Number               : 800-104538-2
  8. TAN Revision Number           : 30 35 00 00
  9. Product Number (PID)          : HA-RPHY-6x12-LC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 00 00 00 00
 12. Deviation Number              : 0
 13. PCB Fab Version               : 02
 14. PCA Serial Number             : CAT2219E1QV
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

Linecard3 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d84
  4. Hardware Version              : 2.0
  5. PCA Part Number               : 73-18651-2
  6. PCA Revision                  : 31 31
```

```
  7. TAN Part Number               : 800-104538-2
  8. TAN Revision Number           : 30 35 00 00
  9. Product Number (PID)          : HA-RPHY-6x12-LC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 00 00 00 00
 12. Deviation Number              : 0
 13. PCB Fab Version               : 02
 14. PCA Serial Number             : CAT2219E1R5
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0


Linecard9 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d84
  4. Hardware Version              : 1.0
  5. PCA Part Number               : 73-18651-1
  6. PCA Revision                  : 00 00
  7. TAN Part Number               : 800-104538-1
  8. TAN Revision Number           : 30 31 00 00
  9. Product Number (PID)          : HA-RPHY-6x12-LC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 00 00 00 00
 12. Deviation Number              : 0
 13. PCB Fab Version               : 01
 14. PCA Serial Number             : CAT2213E1CE
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0

Linecard12 EEPROM data:
  1. Eeprom format version         : 04
  2. Compatiblity Byte             : ff
  3. Controller Type               : 0x0d84
  4. Hardware Version              : 2.0
  5. PCA Part Number               : 73-18651-2
  6. PCA Revision                  : 31 31
  7. TAN Part Number               : 800-104538-2
  8. TAN Revision Number           : 30 35 00 00
  9. Product Number (PID)          : HA-RPHY-6x12-LC
 10. Version ID (VID)              : V01
 11. CLEI Code                     : 4e 4f 43 4c 45 49 00 00 00 00
 12. Deviation Number              : 0
 13. PCB Fab Version               : 02
 14. PCA Serial Number             : CAT2219E1RK
 15. RMA Test History              : 00
 16. RMA Number                    : 00 00 00 00
 17. RMA History                   : 00
 18. Manufacturing Test Data       : 00 00 00 00 00 00 00 00
 19. Field Diagnostic Data         : 00 00 00 00 00 00 00 00
 20. Asset ID                      :
 21. Licensing Transaction ID      : 0
```

show dlm counter

To display DEPI Latency Measurement (DLM) information, use the **show dlm counter** command in privileged EXEC mode.

show dlm *erpdindex* **counter**

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card, Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show dlm** *erpdindex* **counter** command:

```
HA-Shelf-Slot-0# show dlm 3 counter
LM RX count = 0 TX count = 0 Bad Format drop = 0  Bad Code field drop = 0 Bad Session drop
 = 0
```

show downstream oob configuration

To display the downstream oob configuration, use the **show downstream oob configuration** command in privileged EXEC mode.

show downstream oob configuration 55d1 | 55d2 depi 55d1 | depi 55d2 ndf

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show downstream oob configuration 55d1** command. The **show downstream oob configuration 55d1** command displays the 55D1 in OOB channel configuration:

```
R-PHY# show downstream oob configuration 55d1
OOB 55D1 bcm configuration:
Chan          State   Power    Muted   Frequency  CalcuFreq  RegFreq
1:Primary     DOWN     0       Muted   0          0          0
1:Secondary   DOWN     0       Muted   0          0          0
3             DOWN     0       Muted   0          0          0
```

The following is a sample output of the **show downstream oob configuration ndf** command:

```
R-PHY# show downstream oob configuration ndf
OOB NDF bcm configuration:
Chan    State   Power    Muted   Frequency  CalcuFreq  RegFreq
2       UP       0       UnMuted 55000000   ffefc000   efc000
```

show eipc-pak

To display eipc packet information, use the **show eipc-pak** command in privileged EXEC mode.

show eipc-pak get types | **out** | **in0** *sender_identity receiver_identity slot_number packets_to_capture* | **1** [*sender_identity receiver_identity slot_number packets_to_capture*]

Syntax Description

get types	Displays the different types of eipc packet.
out	Displays the eipc packet that going out.
in	Displays the eipc packet that coming in.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show eipc-pak** command:

```
HA-Shelf-FCC# show eipc-pak in 0 send rece 2 2
['in', '0', 'send', 'rece', '2', '2']
non-block:
(empty list or set)
block:
(empty list or set)
```

show environment

To display a detailed listing of all environmental monitor parameters, use the **show environment** command in privileged EXEC mode.

show environment alarm | [**slot** *slot_id*] | | **all** | [**slot** *slot_id*]

Syntax Description

alarm	Displays the environment alarm on RPD line card.
all	Displays the environment monitor sensor list on RPD line card.
slot *slot_id*	Displays the information of the specific RPD line card.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show environment** command for the environmental alarm on all the RPD line cards:

```
HA-Shelf-FCC# show environment alarm
RPDLC 0 not power on

RPDLC 1 Sensor List:  Environmental Alarm
EventId       Module              Level     StartTime               Duration
Text

RPDLC 2 not power on

RPDLC 3 Sensor List:  Environmental Alarm
EventId       Module              Level     StartTime               Duration
Text

RPDLC 4 not power on

RPDLC 5 not power on

RPDLC 6 Sensor List:  Environmental Alarm
EventId       Module              Level     StartTime               Duration
Text

RPDLC 7 not power on

RPDLC 8 not power on

RPDLC 9 Sensor List:  Environmental Alarm
EventId       Module              Level     StartTime               Duration
Text
```

```
RPDLC 10 not power on

RPDLC 11 not power on

RPDLC 12 Sensor List:  Environmental Alarm
EventId       Module              Level     StartTime               Duration
Text
```

The following is a sample output of the **show environment** command for the environment monitor sensor list on a specific RPD line card:

```
HA-Shelf-FCC# show environment all slot 1
RPDLC 1 Sensor List:  Environmental Monitoring
ID    Sensor                  State               Value
--    ------                  -----               -----
1     volt: VP3P3_AUX_1       NORMAL              3.316000 Volt
2     volt: VP12V_SRC         NORMAL              12.605000 Volt
3     volt: VP7P0             NORMAL              7.055000 Volt
4     volt: IBV               NORMAL              10.106000 Volt
5     volt: VP1P35            NORMAL              1.354000 Volt
6     volt: VP1P8             NORMAL              1.796000 Volt
7     volt: VP1P2             NORMAL              1.213000 Volt
8     volt: VP3P3             NORMAL              3.288000 Volt
9     volt: VP1P0_VID_CPU     NORMAL              1.029000 Volt
10    volt: BCM3161_AVS1      NORMAL              0.930000 Volt
11    volt: BCM3161_AVS2      NORMAL              0.916000 Volt
12    volt: BCM3161_AVS3      NORMAL              0.916000 Volt
13    volt: BCM3161_AVS4      NORMAL              0.945000 Volt
14    volt: BCM3161_AVS5      NORMAL              0.907000 Volt
15    volt: BCM3161_AVS6      NORMAL              0.910000 Volt
16    volt: VP0P95            NORMAL              0.944000 Volt
17    volt: VP1P0             NORMAL              1.011000 Volt
18    volt: VP3P3_AUX_2       NORMAL              3.313000 Volt
19    volt: VP12V_RF0         NORMAL              11.913000 Volt
20    volt: VP12V_RF1         NORMAL              11.898000 Volt
21    volt: VP12V_RF2         NORMAL              11.915000 Volt
22    volt: VP3P0_1           NORMAL              3.025000 Volt
23    volt: VP3P0_2           NORMAL              3.020000 Volt
24    volt: VP3P0_3           NORMAL              3.015000 Volt
25    volt: VP3P0_4           NORMAL              3.015000 Volt
26    volt: VP3P0_5           NORMAL              3.010000 Volt
27    volt: VP3P0_6           NORMAL              3.004000 Volt
28    volt: VTT               NORMAL              0.603000 Volt
29    volt: VP3P3_TUNER       NORMAL              3.297000 Volt
30    volt: VP1P8_TU_A        NORMAL              1.792000 Volt
31    volt: VP2P5             NORMAL              2.514000 Volt
32    volt: VP3P3_AUX_3       NORMAL              3.315000 Volt
33    volt: VP12V_RF3         NORMAL              11.910000 Volt
34    volt: VP12V_RF4         NORMAL              11.938000 Volt
35    volt: VP12V_RF5         NORMAL              11.924000 Volt
36    volt: VP3V3_7044_VCC1   NORMAL              3.286000 Volt
37    volt: VP3V3_7044_VCC2   NORMAL              3.277000 Volt
38    volt: VP3V3_APLL        NORMAL              3.312000 Volt
39    volt: VP1P8_DPLL        NORMAL              1.793000 Volt
40    volt: VP1P0_3160        NORMAL              0.999000 Volt
41    volt: VP3P8             NORMAL              3.790000 Volt
42    volt: VTT2              NORMAL              0.611000 Volt
43    volt: VP5P0_AUX         NORMAL              2.337000 Volt
44    volt: VP5P0_USB         NORMAL              2.485000 Volt
45    volt: VP3P3_VGA_A       NORMAL              3.294000 Volt
46    volt: VP3P3_VGA_B       NORMAL              3.304000 Volt
47    volt: VP3P3_VGA_C       NORMAL              3.306000 Volt
48    volt: VP54              NORMAL              54.509628 Volt
```

```
49    current: VP54           NORMAL              3.625931 Amp
50    temp: Inlet Air-1       NORMAL              37 Celsius
51    temp: Inlet Air-2       NORMAL              35 Celsius
52    temp: FPGA die          NORMAL              62 Celsius
53    temp: CPU downstream    NORMAL              50 Celsius
54    temp: Exhaust Air-1     NORMAL              55 Celsius
55    temp: Exhaust Air-2     NORMAL              50 Celsius
56    temp: BCM3161:1         NORMAL              70 Celsius
57    temp: BCM3161:2         NORMAL              68 Celsius
58    temp: BCM3161:3         NORMAL              66 Celsius
59    temp: HMC7044           NORMAL              57 Celsius
60    temp: RFAM3620:1        NORMAL              68 Celsius
61    temp: RFAM3620:2        NORMAL              68 Celsius
62    temp: RFAM3620:3        NORMAL              67 Celsius
63    temp: RFAM3620:4        NORMAL              66 Celsius
64    temp: RFAM3620:5        NORMAL              66 Celsius
65    temp: RFAM3620:6        NORMAL              65 Celsius
66    current: VP1P0_AVS1     NORMAL              9.062500 Amp
67    current: VP1P0_AVS2     NORMAL              9.125000 Amp
68    current: VP1P0_AVS3     NORMAL              8.812500 Amp
69    current: VP1P0_AVS4     NORMAL              8.875000 Amp
70    current: VP1P0_AVS5     NORMAL              8.625000 Amp
71    current: VP1P0_AVS6     NORMAL              8.750000 Amp
72    current: VP1P0_CPU      NORMAL              6.000000 Amp
73    current: VP1P0          NORMAL              8.750000 Amp
74    current: VP0P95         NORMAL              5.062500 Amp
75    current: VP1P2          NORMAL              4.375000 Amp
76    current: VP1P0_3161     NORMAL              5.437500 Amp
77    current: VP3P8          NORMAL              2.500000 Amp
78    current: VP1P8          NORMAL              7.500000 Amp
79    current: VP3P3          NORMAL              2.125000 Amp
```

show erpd

To display eRPD related information, use the **show erpd** command in privileged EXEC mode.

show erpd [**ipv6** [**slot** *slot_id*[**index** *index_id*]] | **slot** *slot_id* [**index** *index_id*]]

Syntax Description

ipv6	Displays the IPv6 related information.
slot *slot_id*	Displays the information of all the eRPDs on a specific RPD line card.
index *index_id*	Displays the information of a specific eRPD.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show erpd** command:

```
HA-Shelf-FCC# show erpd
Slot Index IPv4           MAC               Master Online
1    0     120.102.22.186 7A:BD:44:A1:00:40        Y
1    1     120.102.22.187 7A:BD:44:A1:00:41        Y
1    2     120.102.22.188 7A:BD:44:A1:00:42        Y
1    3     120.102.22.189 7A:BD:44:A1:00:43        Y
1    4     120.102.22.190 7A:BD:44:A1:00:44        Y
1    5     120.102.22.191 7A:BD:44:A1:00:45 Y      Y
3    0     120.102.22.184 7A:BD:44:A1:00:80        Y
3    1     120.102.22.192 7A:BD:44:A1:00:81        Y
3    2     ---            5A:F2:F2:BC:DA:AF        N
3    3     120.102.22.194 7A:BD:44:A1:00:83        Y
3    4     120.102.22.195 7A:BD:44:A1:00:84        Y
3    5     ---            5A:F2:F2:BC:DA:AF        N
6    0     ---            F6:97:87:5E:49:EC        N
6    1     ---            F6:97:87:5E:49:EC        N
6    2     ---            F6:97:87:5E:49:EC        N
6    3     ---            F6:97:87:5E:49:EC        N
6    4     ---            F6:97:87:5E:49:EC        N
6    5     ---            F6:97:87:5E:49:EC        N
9    0     120.102.22.179 7A:BD:44:A1:01:40        Y
9    1     120.102.22.180 7A:BD:44:A1:01:41        Y
9    2     120.102.22.181 7A:BD:44:A1:01:42        Y
9    3     120.102.22.182 7A:BD:44:A1:01:43        Y
9    4     120.102.22.183 7A:BD:44:A1:01:44        Y
9    5     120.102.22.185 7A:BD:44:A1:01:45        Y
12   0     120.102.22.108 7A:BD:44:A1:01:A0        Y
12   1     120.102.22.113 7A:BD:44:A1:01:A1        Y
12   2     120.102.22.112 7A:BD:44:A1:01:A2        Y
12   3     120.102.22.115 7A:BD:44:A1:01:A3        Y
12   4     120.102.22.114 7A:BD:44:A1:01:A4        Y
12   5     120.102.22.103 7A:BD:44:A1:01:A5        Y
```

The following is a sample output of the **show erpd ipv6** command:

```
HA-Shelf-FCC# show erpd ipv6
Slot Index MAC               Master Online IPv6
1    0     7A:BD:44:A1:00:40        Y      ---
1    1     7A:BD:44:A1:00:41        Y      ---
1    2     7A:BD:44:A1:00:42        Y      ---
1    3     7A:BD:44:A1:00:43        Y      ---
1    4     7A:BD:44:A1:00:44        Y      ---
1    5     7A:BD:44:A1:00:45 Y      Y      ---
3    0     7A:BD:44:A1:00:80        Y      ---
3    1     7A:BD:44:A1:00:81        Y      ---
3    2     5A:F2:F2:BC:DA:AF        N      ---
3    3     7A:BD:44:A1:00:83        Y      ---
3    4     7A:BD:44:A1:00:84        Y      ---
3    5     5A:F2:F2:BC:DA:AF        N      ---
6    0     F6:97:87:5E:49:EC        N      ---
6    1     F6:97:87:5E:49:EC        N      ---
6    2     F6:97:87:5E:49:EC        N      ---
6    3     F6:97:87:5E:49:EC        N      ---
6    4     F6:97:87:5E:49:EC        N      ---
6    5     F6:97:87:5E:49:EC        N      ---
9    0     7A:BD:44:A1:01:40        Y      ---
9    1     7A:BD:44:A1:01:41        Y      ---
9    2     7A:BD:44:A1:01:42        Y      ---
9    3     7A:BD:44:A1:01:43        Y      ---
9    4     7A:BD:44:A1:01:44        Y      ---
9    5     7A:BD:44:A1:01:45        Y      ---
12   0     7A:BD:44:A1:01:A0        Y      ---
12   1     7A:BD:44:A1:01:A1        Y      ---
12   2     7A:BD:44:A1:01:A2        Y      ---
12   3     7A:BD:44:A1:01:A3        Y      ---
12   4     7A:BD:44:A1:01:A4        Y      ---
12   5     7A:BD:44:A1:01:A5        Y      ---
```

show gcp session

To display the Generic Control Plane (GCP) session overall status, use the **show gcp session**command in privileged EXEC mode.

show gcp session [statistics]

Syntax Description

statistics	Displays the detailed Generic Control Plane (GCP) statistics per session.

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show gcp session** command:

```
HA-Shelf-eRPD-0/0# show gcp session
GCP session information

Active sessions:
SLAVE: 2001:120:102:22:2:ebec:672f:7a94:None --> 2001:120:102:22:2::17:8190

Principal session:
None

Principal candidate session
None

Non Principal sessions:
None

Failed sessions:
None
```

```
HA-Shelf-eRPD-0/0# show gcp session statistics
GCP session statistics:

Session1: SLAVE: 120.102.22.110:None --> 120.102.22.17:8190
Rx:6234
RxRunt:0
RxFrag:0
RxInvalidLen:0
RxDecodeFail:0
RxDecodeFrag:0
RxSessionErr:0
RxSessionClose:0
RxNoData:3116
RxSockErr:0
RxQEmpty:0
Tx:3221
TxQEmpty:0
TxQFull:0
```

```
TxFrag:0
TxEncodeErr:0
TxEncodeFail:0
TxSessionErr:0
TxSockErr:0
```

show group environment

To display Cisco Remote PHY Shelf 7200 related information, use the **show group environment** command in privileged EXEC mode.

FCC Mode
show group environment alarm | **all** | **fan** | **fcc** | **power** | **sensor** | **table** *sensor_id*
Non-Primary eRPD Mode
show group environment

Syntax Description

alarm	Displays the alarm information in the shelf.
all	Displays the list of sensors on FCC/RF PIC card/power/fan.
fan	Displays the fan related information.
fcc	Displays the FCC related information.
power	Displays the power related information.
sensor	Displays the sensor related information.
table *sensor_id*	Displays the sensor state table for a specific sensor.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show group environment** command:

```
HA-Shelf-FCC# show group environment alarm
EventId       Module              Level     StartTime               Duration
Text
2148075812    PSU2                CRITICAL  2018-12-22 22:40:20     3 days, 19:57:00    HD
 shelf PSU2 Power Supply Module Missing
2148075812    PSU3                CRITICAL  2018-12-22 22:40:20     3 days, 19:57:00    HD
 shelf PSU3 Power Supply Module Missing


HA-Shelf-FCC# show group environment all
Sensor List:  Environmental Monitoring
ID    Sensor                  State               Value
--    ------                  -----               -----
1     temp: Fan0 Inlet        NORMAL              33 Celsius
2     temp: Fan1 Inlet        NORMAL              35 Celsius
3     temp: Fan2 Inlet        NORMAL              36 Celsius

FCC module List:  Environmental Monitoring
```

```
Device name    State    PWM setpoint for fans   RPD inlet sensor reading used
-----------    -----    ---------------------   -----------------------------
FCC module     NORMAL   9000 RPM                36 Celsius

Fan module List:  Environmental Monitoring
ID    Fan module  State       Temperature     Speed
--    ----------  -----       -----------     -----
1     Fan 0       NORMAL      33 Celsius      8897 RPM
2     Fan 1       NORMAL      35 Celsius      8850 RPM

====================================
Slot      Controller          Value
------------------------------------
 P0         PEM Power           594 W
 P1         PEM Power           584 W
------------------------------------
Input Power Summary:    1178 W
====================================
 LC1        FRU Power          196 W
 LC3        FRU Power          173 W
------------------------------------
Power Consumed Summary:    913 W
====================================
More Cards can be supported:
------------------------------------
LC:                         8
====================================
```

Commands: show h through show n

show if-status

To display the interface status information, use the **show if-status** command in privileged EXEC mode.

show if-status

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show if-status** command:

```
HA-Shelf-eRPD-0/0# show if-status
Registered Cores    Interface      IP                 Status
CORE-2875071719     vbh0           120.102.22.107     OK
CORE-2381902550     vbh0           120.102.22.107     OK
```

show interface backhaul

To display the backhaul information of the Cisco Remote PHY Shelf 7200 interface, use the **show interface backhaul** command in privileged EXEC mode.

show interface backhaul

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show interface backhaul** command:

```
HA-Shelf-FCC# show interface backhaul
Chassis type: HA-Shelf
LC is not up, slot is  0
Slot  Interface  Status

 1    BH0       up

 1    BH1       up

 1    BH2       up

 1    BH3       up

 1    BH4       up

 1    BH5       up

 1    BH6       down

 1    BH7       down
LC is not up, slot is  2
Slot  Interface  Status

 3    BH0       up

 3    BH1       up

 3    BH2       up

 3    BH3       up

 3    BH4       up

 3    BH5       up

 3    BH6       down

 3    BH7       down
LC is not up, slot is  4
```

```
LC is not up, slot is  5
Slot  Interface  Status

 6    BH0       up

 6    BH1       up

 6    BH2       up

 6    BH3       up

 6    BH4       up

 6    BH5       up

 6    BH6       down

 6    BH7       up
LC is not up, slot is  7
LC is not up, slot is  8
Slot  Interface  Status

 9    BH0       up

 9    BH1       up

 9    BH2       up

 9    BH3       up

 9    BH4       up

 9    BH5       up

 9    BH6       up

 9    BH7       up
LC is not up, slot is  10
LC is not up, slot is  11
Slot  Interface  Status

 12    BH0       up

 12    BH1       up

 12    BH2       up

 12    BH3       up

 12    BH4       up

 12    BH5       up

 12    BH6       down

 12    BH7       down
```

show interface info

To display ethernet interface information, use the **show interface info** command in privileged EXEC mode.

show interface info

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show interface info** command:

```
HA-Shelf-eRPD-0/0# show interface info
vbh0      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:20
          inet6 addr: fe80::b8db:adff:fe17:c20/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:660699 errors:0 dropped:0 overruns:0 frame:0
          TX packets:310359 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:62230395 (59.3 MiB)  TX bytes:37813724 (36.0 MiB)
vbh1      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:21
          inet6 addr: fe80::b8db:adff:fe17:c21/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1549970 errors:0 dropped:0 overruns:0 frame:0
          TX packets:808438 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:131218389 (125.1 MiB)  TX bytes:85823495 (81.8 MiB)
vbh2      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:22
          inet6 addr: fe80::b8db:adff:fe17:c22/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1456941 errors:0 dropped:0 overruns:0 frame:0
          TX packets:684850 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:123227893 (117.5 MiB)  TX bytes:68501199 (65.3 MiB)
vbh3      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:23
          inet6 addr: fe80::b8db:adff:fe17:c23/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:513973 errors:0 dropped:0 overruns:0 frame:0
          TX packets:204409 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:50659725 (48.3 MiB)  TX bytes:27145669 (25.8 MiB)
vbh4      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:24
          inet6 addr: fe80::b8db:adff:fe17:c24/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1331676 errors:0 dropped:0 overruns:0 frame:0
          TX packets:630875 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:113642408 (108.3 MiB)  TX bytes:65867769 (62.8 MiB)
vbh5      Link encap:Ethernet  HWaddr BA:DB:AD:17:0C:25
          inet6 addr: fe80::b8db:adff:fe17:c25/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1273297 errors:0 dropped:0 overruns:0 frame:0
          TX packets:602388 errors:0 dropped:0 overruns:0 carrier:0
```

```
collisions:0 txqueuelen:1000
RX bytes:109267735 (104.2 MiB)  TX bytes:63531613 (60.5 MiB)
```

show inventory

To display the inventory information of the Cisco Remote PHY Shelf 7200, use the **show inventory** command in privileged EXEC mode.

show inventory

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show inventory** command:

```
HA-Shelf-FCC# show inventory
NAME: Cisco Smart PHY 7200 HA-Shelf Chassis
PID: HA-RPHY-CHASSIS    SN: FXS220301ME      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf Fan Control Card
PID: HA-RPHY-FAN-TRAY   SN: CAT2213E1F9      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 0
PID: HA-RPHY-PIC        SN: CAT2213E001      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 1
PID: HA-RPHY-PIC        SN: CAT2213E00Q      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 2
PID: HA-RPHY-PIC        SN: CAT2213E002      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 3
PID: HA-RPHY-PIC        SN: CAT2213E01J      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 4
PID: HA-RPHY-PIC        SN: CAT2213E00C      VID: 04

NAME: Cisco Smart PHY 7200 HA-Shelf PIC 5
PID: HA-RPHY-PIC        SN: CAT2142E03J      VID: 04
```

show ipc

To display the interprocess communication (IPC) statistics, use the **show ipc** command in privileged EXEC mode.

show ipc

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ipc** command:

```
HA-Shelf-FCC# show ipc
tcp        0      0 192.168.100.200:9503    192.168.100.103:60732   ESTABLISHED 6001/hds-lcred
tcp        0      0 192.168.100.200:9512    192.168.100.112:46028   ESTABLISHED 6001/hds-lcred
tcp        0      0 192.168.100.200:9509    192.168.100.109:41552   ESTABLISHED 6001/hds-lcred
tcp        0      0 192.168.100.200:9501    192.168.100.101:47488   ESTABLISHED 6001/hds-lcred
tcp        0      0 192.168.100.200:9506    192.168.100.106:52864   ESTABLISHED 6001/hds-lcred
```

show ipv4 route

To display the IPv4 route information, use the **show ipv4 route** command in privileged EXEC mode.

show ipv4 route

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ipv4 route**command:

```
HA-Shelf-eRPD-0/0# show ipv4 route
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh3
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh2
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh0
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh1
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh4
default         120.102.22.3    0.0.0.0         UG    0      0        0 vbh5
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh3
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh2
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh0
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh1
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh4
10.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh5
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh3
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh2
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh0
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh1
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh4
20.0.0.0        120.102.22.3    255.0.0.0       UG    0      0        0 vbh5
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh5
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh4
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh1
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh0
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh2
120.102.22.0    *               255.255.255.0   U     0      0        0 vbh3
192.168.1.0     *               255.255.255.0   U     0      0        0 vph0
192.168.2.0     *               255.255.255.0   U     0      0        0 vph1
192.168.3.0     *               255.255.255.0   U     0      0        0 vph2
192.168.4.0     *               255.255.255.0   U     0      0        0 vph3
192.168.5.0     *               255.255.255.0   U     0      0        0 vph4
192.168.6.0     *               255.255.255.0   U     0      0        0 vph5
192.168.10.0    *               255.255.255.0   U     0      0        0 l2tpvph0
192.168.11.0    *               255.255.255.0   U     0      0        0 l2tpvph1
192.168.12.0    *               255.255.255.0   U     0      0        0 l2tpvph2
192.168.13.0    *               255.255.255.0   U     0      0        0 l2tpvph3
192.168.14.0    *               255.255.255.0   U     0      0        0 l2tpvph4
192.168.15.0    *               255.255.255.0   U     0      0        0 l2tpvph5
192.168.126.0   *               255.255.255.0   U     0      0        0 vfi
```

show ipv6 address

To display the IPv6 address information, use the **show ipv6 address** command in privileged EXEC mode.

show ipv6 address

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ipv6 address**command:

```
HA-Shelf-eRPD-0/0# show ipv6 address
vbh0@ni0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 state UP qlen 1000
    inet6 fe80::b8db:adff:fe17:c40/64 scope link
       valid_lft forever preferred_lft forever
vbh1@ni0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 state UP qlen 1000
    inet6 fe80::b8db:adff:fe17:c41/64 scope link
       valid_lft forever preferred_lft forever
```

show ipv6 route

To display the IPv6 route information, use the **show ipv6 route** command in privileged EXEC mode.

show ipv6 route

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ipv6 route**command:

```
HA-Shelf-eRPD-0/0# show ipv6 route
Kernel IPv6 routing table
Destination                                Next Hop                               Flags
Metric Ref    Use Iface
fe80::/64                                  ::                                     U
256    0        1 vph3
fe80::/64                                  ::                                     U
256    0        1 vph4
fe80::/64                                  ::                                     U
256    0        1 vph5
fe80::/64                                  ::                                     U
256    0        1 ni0
fe80::/64                                  ::                                     U
256    0        1 vfi
fe80::/64                                  ::                                     U
256    0        1 vph0
fe80::/64                                  ::                                     U
256    0        1 vph1
fe80::/64                                  ::                                     U
256    0        1 vph2
fe80::/64                                  ::                                     U
256    0        1 l2tpvph5
fe80::/64                                  ::                                     U
256    0        1 vbh5
fe80::/64                                  ::                                     U
256    0        1 l2tpvph3
fe80::/64                                  ::                                     U
256    0        1 l2tpvph0
fe80::/64                                  ::                                     U
256    0        1 l2tpvph4
fe80::/64                                  ::                                     U
256    0        1 l2tpvph2
fe80::/64                                  ::                                     U
256    0        1 vbh3
fe80::/64                                  ::                                     U
256    0        1 l2tpvph1
fe80::/64                                  ::                                     U
256    0        1 vbh0
fe80::/64                                  ::                                     U
256    0        1 vbh4
fe80::/64                                  ::                                     U
```

```
256    0        1 vbh2
fe80::/64                                  ::                                  U
256    0        1 vbh1
::1/128                                    ::                                  U
0      10       5 lo
fe80::/128                                 ::                                  U
0      0        2 vph3
fe80::/128                                 ::                                  U
0      0        2 vph4
fe80::/128                                 ::                                  U
0      0        2 vph5
fe80::/128                                 ::                                  U
0      0        2 vph0
fe80::/128                                 ::                                  U
0      0        2 ni0
fe80::/128                                 ::                                  U
0      0        2 vph1
fe80::/128                                 ::                                  U
0      0        2 vph2
fe80::/128                                 ::                                  U
0      0        2 vfi
fe80::/128                                 ::                                  U
0      0        2 l2tpvph5
fe80::/128                                 ::                                  U
0      0        2 vbh5
fe80::/128                                 ::                                  U
0      0        2 l2tpvph3
fe80::/128                                 ::                                  U
0      0        2 l2tpvph0
fe80::/128                                 ::                                  U
0      0        2 l2tpvph4
fe80::/128                                 ::                                  U
0      0        2 l2tpvph2
fe80::/128                                 ::                                  U
0      0        2 vbh3
fe80::/128                                 ::                                  U
0      0        2 l2tpvph1
fe80::/128                                 ::                                  U
0      0        2 vbh0
fe80::/128                                 ::                                  U
0      0        2 vbh4
fe80::/128                                 ::                                  U
0      0        2 vbh2
fe80::/128                                 ::                                  U
0      0        2 vbh1
fe80::ad:f9ff:fe30:ca1a/128                ::                                  U
0      0        2 l2tpvph3
fe80::208a:bfff:fe6a:26b0/128              ::                                  U
0      0        2 l2tpvph0
fe80::2c53:ceff:fe9c:d88b/128              ::                                  U
0      0        2 l2tpvph4
fe80::3c7f:aeff:fedf:7709/128              ::                                  U
0      0        2 l2tpvph2
fe80::3ceb:4cff:fe83:5224/128              ::                                  U
0      0        2 l2tpvph5
fe80::5405:c1ff:fe0b:6e08/128              ::                                  U
0      0        2 ni0
fe80::a833:11ff:fe66:0/128                 ::                                  U
0      0        2 vfi
fe80::a833:11ff:fe66:1/128                 ::                                  U
0      0        2 vph0
fe80::a833:11ff:fe66:2/128                 ::                                  U
0      0        2 vph1
fe80::a833:11ff:fe66:3/128                 ::                                  U
```

```
0      0        2 vph2
fe80::a833:11ff:fe66:4/128                 ::                                      U
0      0        2 vph3
fe80::a833:11ff:fe66:5/128                 ::                                      U
0      0        2 vph4
fe80::a833:11ff:fe66:6/128                 ::                                      U
0      0        2 vph5
fe80::b8db:adff:fe17:c40/128               ::                                      U
0      0        2 vbh0
fe80::b8db:adff:fe17:c41/128               ::                                      U
0      0        2 vbh1
fe80::b8db:adff:fe17:c42/128               ::                                      U
0      0        2 vbh2
fe80::b8db:adff:fe17:c43/128               ::                                      U
0      0        2 vbh3
fe80::b8db:adff:fe17:c44/128               ::                                      U
0      0        2 vbh4
fe80::b8db:adff:fe17:c45/128               ::                                      U
0      0        2 vbh5
fe80::d467:5fff:fed9:4c90/128              ::                                      U
0      0        2 l2tpvph1
ff00::/8                                   ::                                      U
256    0        1 vph3
ff00::/8                                   ::                                      U
256    0        1 vph4
ff00::/8                                   ::                                      U
256    0        1 vph5
ff00::/8                                   ::                                      U
256    0        1 ni0
ff00::/8                                   ::                                      U
256    0        1 vfi
ff00::/8                                   ::                                      U
256    0        1 vph0
ff00::/8                                   ::                                      U
256    0        1 vph1
ff00::/8                                   ::                                      U
256    0        1 vph2
ff00::/8                                   ::                                      U
256    0        1 l2tpvph5
ff00::/8                                   ::                                      U
256    111394       2 vbh5
ff00::/8                                   ::                                      U
256    0        1 l2tpvph3
ff00::/8                                   ::                                      U
256    0        1 l2tpvph0
ff00::/8                                   ::                                      U
256    0        1 l2tpvph4
ff00::/8                                   ::                                      U
256    0        1 l2tpvph2
ff00::/8                                   ::                                      U
256    1827       2 vbh3
ff00::/8                                   ::                                      U
256    0        1 l2tpvph1
ff00::/8                                   ::                                      U
256    1817       2 vbh0
ff00::/8                                   ::                                      U
256    1806       2 vbh4
ff00::/8                                   ::                                      U
256    1796       2 vbh2
ff00::/8                                   ::                                      U
256    1785       2 vbh1
```

show l2tp

To display information on Layer 2 VPN, use the **show l2tp** command in privileged EXEC mode.

show l2tp [**multicast** |**session**[*local_tunnel_id local_session_id*| **link**]| **statistics**| **tunnel**]

Syntax Description

multicast	Displays the IGMPv3 join sessions information.
session	Displays information on the Layer 2 VPN sessions.
session link	Displays the fan related information.
statistics	Displays the Layer 2 VPN error statistics.
tunnel	Displays the Layer 2 VPN tunnel information.

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show l2tp** command:

```
HA-Shelf-eRPD-0/0# show l2tp

cmd: SYSTEM_INFO

rsp: SUCCESS
retMsg: "Success"
sysInfo {
  conns {
    connectionID: 582604466
    remoteConnectionID: 3129247339
    remoteAddr: "120.102.22.17"
    localAddr: "120.102.22.120"
    hostname: "GMM"
    currentState: "established"
    localSessionID: 15990784
    localSessionID: 6553601
    localSessionID: 13893634
    localSessionID: 13893635
    localSessionID: 11796484
    localSessionID: 11796485
    localSessionID: 11796486
    localSessionID: 13893633
    localSessionID: 15990792
    localSessionID: 13893641
    localSessionID: 6553610
    localSessionID: 11796491
    localSessionID: 15990786
    localSessionID: 13893643
```

```
    localSessionID: 15990787
    localSessionID: 11796489
    localSessionID: 15990788
    localSessionID: 6553605
    localSessionID: 13893632
    localSessionID: 11796480
    localSessionID: 15990794
    localSessionID: 15990790
    localSessionID: 17039361
    localSessionID: 6553606
    localSessionID: 15990789
    localSessionID: 15990791
    localSessionID: 13893640
    localSessionID: 8650752
    localSessionID: 11796481
    localSessionID: 6553609
    localSessionID: 11796487
    localSessionID: 13893638
    localSessionID: 11796490
    localSessionID: 6553602
    localSessionID: 6553611
    localSessionID: 17039360
    localSessionID: 11796482
    localSessionID: 11796488
    localSessionID: 15990795
    localSessionID: 13893639
    localSessionID: 272695296
    localSessionID: 6553603
    localSessionID: 11796483
    localSessionID: 6553600
    localSessionID: 15990793
    localSessionID: 6553607
    localSessionID: 13893637
    localSessionID: 15990785
    localSessionID: 6553608
    localSessionID: 13893636
    localSessionID: 13893642
    localSessionID: 6553604
  }
}

HA-Shelf-eRPD-0/0# show l2tp multicast
Interface  LocalIp  Grp  Src  Status  Refcnt  Last Chg

HA-Shelf-eRPD-0/0# show l2tp session link
L2TP Tunnel Information Total tunnels 1 sessions 52
LocSessID RemSessID LocTunID  RemTunID  State Type       Link Last Chg
10410000  00009d9f  3336a80a  0b499600  est   PSP_DEPI   UP   16:03:50 2019-01-22
00840000  44020074  3336a80a  0b499600  est   BW_SCQAM   UP   16:03:50 2019-01-22
00640002  44010128  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00f40003  4408012c  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00640004  44010130  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:50 2019-01-22
00f40005  44080134  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00b40000  44040120  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:50 2019-01-22
00f40001  44080124  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00b40008  44040140  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:50 2019-01-22
00f40009  44080144  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
00f4000a  44080148  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00d4000b  4400014c  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
00d40005  44000134  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
00b4000b  4404014c  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:52 2019-01-22
00640003  4401012c  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:50 2019-01-22
00b40009  44040144  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:51 2019-01-22
00d40004  44000130  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
```

```
00b40005  44040134  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:50 2019-01-22
00f40000  44080120  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
00d40002  44000128  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:52 2019-01-22
00640006  44010138  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
01040001  44201074  3336a80a  0b499600  est   PSP_PNM    UP   16:03:50 2019-01-22
00b40006  44040138  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:50 2019-01-22
00d40001  44000124  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:52 2019-01-22
00b40007  4404013c  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:51 2019-01-22
00f40007  4408013c  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00f40008  44080140  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
0064000a  44010148  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00b40001  44040124  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:51 2019-01-22
00640009  44010144  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00640005  44010134  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00f40006  44080138  3336a80a  0b499600  est   SPECMAN    UP   16:03:50 2019-01-22
00d4000a  44000148  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
00f40002  44080128  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
0064000b  4401014c  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00d40000  44000120  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:50 2019-01-22
01040000  44200074  3336a80a  0b499600  est   PSP_PNM    UP   16:03:52 2019-01-22
00d40006  44000138  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
00b40002  44040128  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:51 2019-01-22
00d40008  44000140  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:52 2019-01-22
00f4000b  4408014c  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
00640001  44010124  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00d40007  4400013c  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:51 2019-01-22
00d40003  4400012c  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:50 2019-01-22
00b40003  4404012c  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:51 2019-01-22
00640000  44010120  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00d40009  44000144  3336a80a  0b499600  est   MAP_SCQ    UP   16:03:52 2019-01-22
00640007  4401013c  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:52 2019-01-22
00640008  44010140  3336a80a  0b499600  est   UEPI_SCQAM UP   16:03:51 2019-01-22
00b40004  44040130  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:52 2019-01-22
00b4000a  44040148  3336a80a  0b499600  est   RNG_SCQ    UP   16:03:52 2019-01-22
00f40004  44080130  3336a80a  0b499600  est   SPECMAN    UP   16:03:51 2019-01-22
```

```
HA-Shelf-eRPD-0/0# show l2tp statistics
rsp: SUCCESS
retMsg: "Success"
stats_info {
  dispacher_stats {
    exception: 0
    error: 0
    pkt_error: 0
    zmq_error: 0
    unexpected_else: 0
  }
  halclient_stats {
    exception: 0
    error: 2
    zmq_error: 1
  }
}
```

```
HA-Shelf-eRPD-0/0# show l2tp tunnel
L2TP Tunnel Information Total tunnels 1 sessions 52
LocTunID  RemTunID  Remote Name  State  Remote Address  Local Address   Sessn Count
bb931cff  e8cc8446  GMM          est    120.102.22.17   120.102.22.116  52
```

show link-redundancy

To display the operation status of link redundancy, use the **show link-redundancy** command in privileged EXEC mode.

show link-redundancy all | **slot** *slot_id*

Syntax Description

all	Displays the link redundancy operation status of all RPD line cards.
slot *slot_id*	Displays the link redundancy operation status of a specific RPD line card.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **link-redundancy** command for all the RPD line cards:

```
HA-Shelf-FCC# show link-redundancy all
LC 0 is not up.

LC 1 :
---------------------------
Backhaul |State   Role
---------|-----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |  -     Primary
7        |  -     Primary
---------------------------

LC 2 is not up.

LC 3 :
---------------------------
Backhaul |State   Role
---------|-----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |  -     Primary
7        |  -     Primary
---------------------------
```

```
LC 4 is not up.

LC 5 is not up.

LC 6 :
--------------------------
Backhaul |State   Role
---------|----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |  -     Primary
7        |Active  Primary
--------------------------

LC 7 is not up.

LC 8 is not up.

LC 9 :
--------------------------
Backhaul |State   Role
---------|----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |Active  Primary
7        |Active  Primary
--------------------------

LC 10 is not up.

LC 11 is not up.

LC 12 :
--------------------------
Backhaul |State   Role
---------|----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |  -     Primary
7        |  -     Primary
--------------------------
```

show logging

To display Cisco Remote PHY Shelf 7200 log buffer, use the **show logging** command in privileged EXEC mode.

show logging [**onboardcurrent** | **message** | **startup_time** | **temperature** | **voltage** | **resetlog**]

Syntax Description

current	Displays the current log.
message	Displays the obfl error message.
startup_time	Displays the board startup_time data.
temperature	Displays the temperature data.
voltage	Displays the voltage data.
resetlog	Displays the reset reason log.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show logging** command:

```
HA-Shelf-FCC# show logging
Log Buffer (16 messages)

2018-12-26T17:40:06.474484+00:00 INFO  hmon Health Monitor running
2018-12-26T17:40:06.691867+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T17:45:06.466080+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T17:50:06.333826+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T17:55:06.376094+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:00:06.246609+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:05:07.055469+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:10:06.902042+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:15:06.742502+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:19:37.199332+00:00 INFO  shelfmgrctrl Shelf Manager received unknown control
 message from slot FCC.
2018-12-26T18:20:06.558040+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:25:06.361379+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:30:06.224301+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:35:07.074222+00:00 WARNING  hmon disk Usage /bootflash:88%
2018-12-26T18:40:06.727998+00:00 INFO  hmon Health Monitor running
2018-12-26T18:40:06.933981+00:00 WARNING  hmon disk Usage /bootflash:88%


HA-Shelf-FCC# show logging onboard message
2018-05-18 03:55:56     ACT2           3            ACT2 device on DMP is not programed
2018-05-18 03:55:59     ACT2           3            ACT2 device on DMP is not programed
```

```
2018-05-24 05:46:50     FCC_CMAN       3           Master RPD two inlet temperature
difference value is more than 8 degree
2018-05-25 04:14:28     FCC_CMAN       3           Master RPD two inlet temperature
difference value is more than 8 degree
2018-05-28 18:48:27     FCC_CMAN       3           Master RPD two inlet temperature
difference value is more than 8 degree
2018-06-03 16:21:57     FCC_CMAN       3           Master RPD two inlet temperature
difference value is more than 8 degree
2018-05-01 15:19:32     FCC_CMAN       3           FAN0 module is MISSING
2018-05-01 15:19:32     FCC_CMAN       3           FAN1 module is MISSING
2018-05-01 15:19:32     FCC_CMAN       3           FAN2 module is MISSING
2018-05-01 15:19:32     FCC_CMAN       3           FAN3 module is MISSING
2018-05-01 15:19:32     FCC_CMAN       3           FAN4 module is MISSING
2018-05-01 15:19:37     FCC_CMAN       3           FAN0 module is MISSING
2018-05-01 15:19:37     FCC_CMAN       3           FAN1 module is MISSING
2018-05-01 15:19:37     FCC_CMAN       3           FAN2 module is MISSING
2018-05-01 15:19:37     FCC_CMAN       3           FAN3 module is MISSING
2018-05-01 15:19:37     FCC_CMAN       3           FAN4 module is MISSING
2018-05-01 15:19:42     FCC_CMAN       3           FAN0 module is MISSING
2018-05-01 15:19:42     FCC_CMAN       3           FAN1 module is MISSING
2018-05-01 15:19:42     FCC_CMAN       3           FAN2 module is MISSING
2018-05-01 15:19:42     FCC_CMAN       3           FAN3 module is MISSING
2018-05-01 15:19:42     FCC_CMAN       3           FAN4 module is MISSING
2018-05-01 15:19:47     FCC_CMAN       3           FAN0 module is MISSING
2018-05-01 15:19:47     FCC_CMAN       3           FAN1 module is MISSING
2018-05-01 15:19:47     FCC_CMAN       3           FAN2 module is MISSING
2018-05-01 15:19:47     FCC_CMAN       3           FAN3 module is MISSING
2018-05-01 15:19:47     FCC_CMAN       3           FAN4 module is MISSING
```

show memory

To view the available and utillized memory for all line cards or a specific line card , use the **show memory** command in privileged EXEC mode.

show memory all | **slot** *slot_id*

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show memory all**command:

```
HA-Shelf-FCC# show memory all
Slot  MemoryUsed  MemoryFree
1     4092600K    1820952K
3     3813888K    2099664K
6     2396380K    3517172K
9     3554012K    2359540K
12    3877308K    2036244K
FCC   876908K     1029345K
```

This is a sample output of the **show memory slot** command.

```
HA-Shelf-FCC# show memory slot 1
Memory usage on Slot 1
-----------------------
MemUsed:      4135236K
MemFree:      1778316K
MemShared:    126800K
MemBuff:      6624K
MemCached:    324760K
```

Commands: show o through show t

show platform diag

To view your RPHY diagnostics, use the **show platform diag** command in privileged EXEC mode.

show platform diag

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show platform diag**command:

```
HA-Shelf-FCC# show platform diag
Chassis type: HA-RPHY-CHASSIS

HA-RPHY-FAN-TRAY:
 State                       : OK
 Software declared up time   : 2 days, 7 hours, 20 minutes, 20 seconds
 Primary UBoot               : 181019 *
 Golden UBoot                : 180508
 IOFPGA version              : a209 (Primary)
 EOBC version                : 1.01

PIC0, HA-RPHY-PIC
 State                       : OK

PIC1, HA-RPHY-PIC
 State                       : OK

P0, CBR-AC-PS
 State                       : OK

FAN0, UNKNOWN
 State                       : NORMAL
 Physical insert detect time : 2 days, 7 hours, 18 minutes, 18 seconds

FAN1, UNKNOWN
 State                       : NORMAL
 Physical insert detect time : 2 days, 7 hours, 18 minutes, 18 seconds

LC1, HA-RPHY-6x12-LC:
 State                       : OK
 Software declared up time   : 6 hours, 37 minutes, 50 seconds
 Primary UBoot               : 2017.11 (Aug 17 2018 - 08:43:42 +0800) *
 Golden UBoot                : 2016.01 (Apr 17 2018 - 03:00:31 +0800)
 FPGA version                : 2.3.15
 IOFPGA version              : 0x8229
 ADM1266-0 firmware version  : 010d02
 ADM1266-0 config version    : A23
 ADM1266-1 firmware version  : 010d02
 ADM1266-1 config version    : A23
 ADM1266-2 firmware version  : 010d02
 ADM1266-2 config version    : A23
```

```
 JPLD version                : 0x1

LC12, UNKNOWN:
 State                       : OK
 Software declared up time   : 6 hours, 19 minutes, 45 seconds
 Primary UBoot               : 2017.11 (Aug 17 2018 - 08:43:42 +0800) *
 Golden UBoot                : 2017.11 (Jun 11 2018 - 02:17:47 +0800)
 FPGA version                : 2.3.15
 IOFPGA version              : 0xc129
 ADM1266-0 firmware version  : 010a04
 ADM1266-0 config version    : A14
 ADM1266-1 firmware version  : 010a04
 ADM1266-1 config version    : A14
 ADM1266-2 firmware version  : 010a04
 ADM1266-2 config version    : A14
 JPLD version                : 0x2
```

show pm

To view packet count received on a specific port, use the **show erpd** command in privileged EXEC mode.

show pm *index_id* **statistic port** *port_id*

Syntax Description

index_id	Displays the information of a specific eRPD.
port *port_id*	Displays the information of a specific port.

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show pm** command:

```
HA-Shelf-Slot-0# show pm 5 statistic port 1
Port 1
RX unsupported opcode frames        : 0x0
RX frames (all packets)             : 0x6dddbee
RX pause frames                     : 0x0
RX control frames                   : 0x0
RX undersized frames                : 0x0
RX truncated frames (FIFO full)     : 0x0
RX bytes                            : 0x0
RX good frames                      : 0x6dddbfc
RX MTU check error frames           : 0x0
RX jabber frames                    : 0x0
RX fragment                         : 0x0
RX out-of-range length frames       : 0x0
RX FCS error frames                 : 0x0
RX false carrier                    : 0x0
RX code error frames                : 0x0
RX alignment error                  : 0x0
TXCL                                : 0x1a5
TX FIFO underrun                    : 0x0
TX UC frames                        : 0x1d87b3
TX runt packets                     : 0x0
TX good frames                      : 0x1da692
TX frames (all packets)             : 0x1da692
TX oversized frames                 : 0x0
TNCL                                : 0x0
TX jabber                           : 0x0
TX runt packet with invalid FCS     : 0x0
TX FCS error                        : 0x0
TX error frames                     : 0x0
TX bytes                            : 0xc8bab74
TX BC frames                        : 0xae3
```

show process

To view your CPU, disk, and memory utillization, use the **show process** command in privileged EXEC mode.

show process cpu | **mem**

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC and Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show process cpu**command:

```
HA-Shelf-FCC# show process cpu

CPU Utilization 2.125%, CPU0  2.5%, CPU1  1.5%, CPU2  2.5%, CPU3  2.0%
  PID %MEM %CPU   VSZ/M   RSS/M TTY           COMMAND
    1  0.1  0.0       2       1 ?             /sbin/procd
    2  0.0  0.0       0       0 ?             kthreadd
    4  0.0  0.0       0       0 ?             kworker/0:0H
    6  0.0  0.0       0       0 ?             mm_percpu_wq
    7  0.0  0.0       0       0 ?             ksoftirqd/0
    8  0.0  0.0       0       0 ?             rcu_preempt
    9  0.0  0.0       0       0 ?             rcu_sched
   10  0.0  0.0       0       0 ?             rcu_bh
   11  0.0  0.0       0       0 ?             migration/0
   12  0.0  0.0       0       0 ?             cpuhp/0
   13  0.0  0.0       0       0 ?             cpuhp/1
   14  0.0  0.0       0       0 ?             migration/1
   15  0.0  0.0       0       0 ?             ksoftirqd/1
   16  0.0  0.0       0       0 ?             kworker/1:0
   17  0.0  0.0       0       0 ?             kworker/1:0H
   18  0.0  0.0       0       0 ?             cpuhp/2
   19  0.0  0.0       0       0 ?             migration/2
   20  0.0  0.0       0       0 ?             ksoftirqd/2
   21  0.0  0.0       0       0 ?             kworker/2:0
   22  0.0  0.0       0       0 ?             kworker/2:0H
   23  0.0  0.0       0       0 ?             cpuhp/3
   24  0.0  0.0       0       0 ?             migration/3
   25  0.0  0.0       0       0 ?             ksoftirqd/3
   26  0.0  0.0       0       0 ?             kworker/3:0
   27  0.0  0.0       0       0 ?             kworker/3:0H
   28  0.0  0.0       0       0 ?             netns
   43  0.0  0.0       0       0 ?             kworker/3:1
   61  0.0  0.0       0       0 ?             kworker/1:1
   64  0.0  0.0       0       0 ?             kworker/0:1
   69  0.0  0.0       0       0 ?             kworker/2:1
```

This is a sample output of the **show process mem**command:

```
HA-Shelf-FCC# show process cpu
Disk Utilization (in kBytes)
Dev                  Mount                     Total       Used      %
```

```
/dev/root            /                        259856     160328   63.0
/dev/mmcblk0p1       /bootflash              2063184    1372496   70.0
/dev/mmcblk0p2       /fcc                    5160416    1236276   25.0
/dev/mmcblk0p3       /obfl                     92219      10345   12.0
/dev/loop0           /bootflash/corefiles     588352     126344   23.0

Memory Utilization (in kBytes)
Total  1861576, Available 1337616, Percent    28.1%, Used    865552, Free  996024
Active  444124, Inactive   106228, Buffers     3268, Cached  338324, Shared   23512
   pid      %     vsz     rss  shared    text    data cmd
     1    0.1    2660    1692    1388      52     536 /sbin/procd
     2    0.0       0       0       0       0       0 kthreadd
     4    0.0       0       0       0       0       0 kworker/0:0H
     6    0.0       0       0       0       0       0 mm_percpu_wq
     7    0.0       0       0       0       0       0 ksoftirqd/0
     8    0.0       0       0       0       0       0 rcu_preempt
     9    0.0       0       0       0       0       0 rcu_sched
    10    0.0       0       0       0       0       0 rcu_bh
    11    0.0       0       0       0       0       0 migration/0
    12    0.0       0       0       0       0       0 cpuhp/0
    13    0.0       0       0       0       0       0 cpuhp/1
    14    0.0       0       0       0       0       0 migration/1
    15    0.0       0       0       0       0       0 ksoftirqd/1
    16    0.0       0       0       0       0       0 kworker/1:0
    17    0.0       0       0       0       0       0 kworker/1:0H
    18    0.0       0       0       0       0       0 cpuhp/2
    19    0.0       0       0       0       0       0 migration/2
    20    0.0       0       0       0       0       0 ksoftirqd/2
    21    0.0       0       0       0       0       0 kworker/2:0
    22    0.0       0       0       0       0       0 kworker/2:0H
    23    0.0       0       0       0       0       0 cpuhp/3
    24    0.0       0       0       0       0       0 migration/3
    25    0.0       0       0       0       0       0 ksoftirqd/3
    26    0.0       0       0       0       0       0 kworker/3:0
    27    0.0       0       0       0       0       0 kworker/3:0H
    28    0.0       0       0       0       0       0 netns
    43    0.0       0       0       0       0       0 kworker/3:1
    61    0.0       0       0       0       0       0 kworker/1:1
    64    0.0       0       0       0       0       0 kworker/0:1
    69    0.0       0       0       0       0       0 kworker/2:1
```

show provision

To display information on all the CCAP cores, use the **show provision** command in privileged EXEC mode.

show provision [all | [ccap-core ccap-core index | gcp {ccap-identification | conn-verification } | history | manager [history] | message-history | state]]

Syntax Description

all	Displays information on all CCAP cores.
ccap-core ccap-core index	
gcp ccap-identification	Displays information on the provision GCP CCAP-identification.
gcp connection verification parameters	Displays information on the provision gcp conn-verification parameters.
history	Displays information on the core provision history.
manager	Displays information on the provision manager state information.
manager history	Displays information on the provision manager state change history.
message-history	Dispalys information on the provision agent state change history.
state	Displays the RPD state information.

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following are sample output of the **show provision all** command:

```
HA-Shelf-eRPD-0/0# show provision all
Core-Index  ID              Interface  IP             Name      State        Role
Core-Mode  Initiated-By
0           CORE-2274803641  vbh3       120.102.22.17  CCAPCORE  online       Principal
Active     DHCP
None        CORE-1741190364  vbh3       120.102.22.37  NA        init(ipsec)
          Provision_operational

HA-Shelf-eRPD-0/0# show provision ccap-core ccap-core index
Index  CoreId        CoreIpAddress          IsPrincipal  CoreMode              CoreFunction

1      a0f8496b4a83  2001:120:102:22:2::17  True         CoreModeOutOfService  223

0      a0f8496b4a83  120.102.22.17          True         CoreModeActive        223

F02-Shelf-eRPD-1/3#show provision gcp ccap-identification
ccap-identification  ccap-core redis db information
```

```
HA-Shelf-eRPD-0/0# show provision gcp ccap-identification
Index  CoreId        CoreIpAddress          IsPrincipal  CoreMode              CoreFunction

1      a0f8496b4a83  2001:120:102:22:2::17  True         CoreModeOutOfService  223

0      a0f8496b4a83  120.102.22.17          True         CoreModeActive        223

F02-Shelf-eRPD-1/3#show provision gcp ccap-identification
ccap-identification  ccap-core redis db information

HA-Shelf-eRPD-0/0# show provision gcp conn-verification
CoreId        MaxGcpIdleTime  GcpRecoveryAction          GcpRecoveryActionRetry
GcpRecoveryActionDelay  GcpReconnectTimeout
a0f8496b4a83  0               GcpReconnectToTheSameCore  3                       30
              30

HA-Shelf-eRPD-0/0# show provision history
Core-Index  Interface  IP             Mac                From-State         To-State
     event                Added-By  Time
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  none               init(ipsec)
     TRIGGER_Startup      DHCP      2019 Jan 22 00:35:17:585587
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:35:17:588386
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:35:19:076017
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:35:19:096427
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:35:49:103136
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:35:51:132740
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:35:51:158225
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:36:21:163149
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:36:23:169938
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:36:23:191646
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:36:53:202184
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:36:55:204878
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:36:55:225806
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        FAIL
     TRIGGER_Error        DHCP      2019 Jan 22 00:36:55:262577
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  FAIL               DEL
     TRIGGER_DEL          DHCP      2019 Jan 22 00:36:55:295124
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  none               init(ipsec)
     TRIGGER_Startup      DHCP      2019 Jan 22 00:38:17:602204
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:38:17:605676
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:38:19:394182
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:38:19:414651
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:38:49:425994
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:38:51:435812
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:38:51:455711
None        vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
```

```
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:39:21:463361
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:39:23:462831
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:39:23:482484
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:39:53:485051
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:39:55:510051
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:39:55:532824
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        FAIL
     TRIGGER_Error        DHCP      2019 Jan 22 00:39:55:571848
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  FAIL               DEL
     TRIGGER_DEL          DHCP      2019 Jan 22 00:39:55:607530
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  none               init(ipsec)
     TRIGGER_Startup      DHCP      2019 Jan 22 00:41:17:598949
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:41:17:601737
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:41:18:667984
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:41:18:694449
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:41:48:703604
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:41:49:763436
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:41:49:784501
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:42:19:793378
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:42:20:884378
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:42:20:909116
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:42:50:922675
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:42:52:085139
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:42:52:108127
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        FAIL
     TRIGGER_Error        DHCP      2019 Jan 22 00:42:52:150245
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  FAIL               DEL
     TRIGGER_DEL          DHCP      2019 Jan 22 00:42:52:187436
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  none               init(ipsec)
     TRIGGER_Startup      DHCP      2019 Jan 22 00:44:17:608804
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 22 00:44:17:611263
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 22 00:44:19:288293
None         vbh3       120.102.22.37  ba:db:ad:17:0c:43  init(gcp-ira)      init(ipsec)
     TRIGGER_TCP_FAIL     DHCP      2019 Jan 22 00:44:19:309643
None         vbh3       120.102.22.17  ba:db:ad:17:0c:43  none               init(ipsec)
     TRIGGER_Startup      DHCP      2019 Jan 21 16:59:05:425927
None         vbh3       120.102.22.17  ba:db:ad:17:0c:43  init(ipsec)        init(tcp)
     TRIGGER_IPSEC_OK     DHCP      2019 Jan 21 16:59:05:429235
None         vbh3       120.102.22.17  ba:db:ad:17:0c:43  init(tcp)          init(gcp-ira)
     TRIGGER_TCP_OK       DHCP      2019 Jan 21 16:59:06:796445
None         vbh3       120.102.22.17  ba:db:ad:17:0c:43  init(gcp-ira)      init(gcp-cfg)
     TRIGGER_GCP_IRA      DHCP      2019 Jan 21 16:59:06:893914
0          vbh3      120.102.22.17  ba:db:ad:17:0c:43  init(gcp-cfg)      init(gcp-cfg-cpl)
  TRIGGER_GCP_CFG      DHCP      2019 Jan 21 16:59:07:143812
0          vbh3       120.102.22.17  ba:db:ad:17:0c:43  init(gcp-cfg-cpl)  init(gcp-op)
```

```
     TRIGGER_GCP_CFG_CPL  DHCP      2019 Jan 21 16:59:15:635490
0           vbh3       120.102.22.17  ba:db:ad:17:0c:43  init(gcp-op)       online
     TRIGGER_GCP_OP       DHCP      2019 Jan 21 16:59:16:966356

HA-Shelf-eRPD-0/0# show provision manager
ID              State        Time
MGR-3526216643  OPERATIONAL  2019 Jan 21 16:59:16:957446

HA-Shelf-eRPD-0/0# show provision message-history
  ID              From-State           To-State             Event               Time

MGR-1833250024  none                 INIT                 Startup            2019 Jan 24
14:45:02:412139
MGR-1833250024  INIT                 PRINCIPLE_PROVISION  STARTUP_TOD_OK     2019 Jan 24
14:45:17:481874
MGR-1833250024  PRINCIPLE_PROVISION  PRINCIPAL_FOUND      SEEK_PRINCIPAL_OK  2019 Jan 24
14:45:53:720551
MGR-1833250024  PRINCIPAL_FOUND      OPERATIONAL          OPERATIONAL_OK     2019 Jan 24
14:46:07:741142

HA-Shelf-eRPD-0/0# show provision state
TopLevelRpdstate:             OperationalPrincipalCore
ConnectPrincipalCoreSubState: GcpConfigPrincipalCore
LocalPtpSyncStatus:           True

NetworkAuthenticationPortIndex  NetworkAuthenticationRpdState
4                               WaitForEapReq


AuxCoreIndex  AuxCoreId  AuxCoreIp  AuxCoreRPDState
```

show ptp clock

To display information on the PTP clock of the Line Card, use the **show ssh** command in privileged EXEC mode.

show ptp clock session | **rpd-pubkey**

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.x	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ptp clock** command:

```
HA-Shelf-eRPD-0/0# show ptp clock 0 state
apr state       : PHASE_LOCK
clock state     : CLOCK_VERIFY
current tod     : 1539406121   Sat Oct 13 04:48:41 2018
active stream   : 2
==stream    2   :
  port id       :                1
  master ip     :       10.90.3.93
  local ip      :       90.0.21.12
  stream state  :       PHASE_LOCK
  Master offset :             -655
  Path    delay :            14256
  Forward delay :            13601
  Reverse delay :            14846
  Freq offset   :           -57294
  1Hz  offset   :              802
==stream    4   :
  port id       :                2
  master ip     :       10.90.3.93
  local ip      :       90.0.22.12
  stream state  :       PHASE_LOCK
  Master offset :             -640
  Path    delay :            14317
  Forward delay :            13677
  Reverse delay :            14871
  Freq offset   :           -57083
  1Hz  offset   :              796
==stream    6   :
  port id       :                3
  master ip     :       10.90.3.93
  local ip      :       90.0.23.12
  stream state  :       PHASE_LOCK
  Master offset :             -446
  Path    delay :            14757
  Forward delay :            13759
  Reverse delay :            15756
  Freq offset   :           -57354
  1Hz  offset   :              833
==stream    8   :
```

```
port id       :               4
master ip     :      10.90.3.93
local ip      :      90.0.20.12
stream state  :      PHASE_LOCK
Master offset :            -870
Path    delay :           14398
Forward delay :           13793
Reverse delay :           15003
Freq offset   :          -57427
1Hz  offset   :             817
```

show reboot hold

To display information on what is blocking the system from reboot, use the **show reboot hold** command in privileged EXEC mode.

show reboot hold

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show reboot hold** command:

```
HA-Shelf-eRPD-0/0# show reboot hold
PC_REBOOT_HOLD is not set
```

show running-config

To view port mapping and link redundancy details on the Cisco Remote PHY Shelf 7200, use the **show running-config** command in privileged EXEC mode.

show running-config [bh-erpd-mapping | link-redundancy]

Syntax Description

bh-erpd-mapping	Displays the SFP+ port mapping to RPHY devices.
link-redundancy	Displays the link redundancy mode.

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show running-config** command:

```
HA-Shelf-FCC# show running-config
Building configuration...
!
hostname prefix 66666666666666666666
!
login password 21232f297a57a5a7438
!
over-temp-shutdown
!
trunk vlan 423 slot 1 erpd 0
trunk vlan 423 slot 1 erpd 1
trunk vlan 423 slot 1 erpd 2
trunk vlan 423 slot 1 erpd 3
trunk vlan 423 slot 1 erpd 4
trunk vlan 423 slot 1 erpd 5
trunk vlan 100 slot 5 erpd 2
trunk vlan 100 slot 5 erpd 3
trunk vlan 100 slot 5 erpd 4
trunk vlan 423 slot 12 erpd 0
trunk vlan 423 slot 12 erpd 1
trunk vlan 423 slot 12 erpd 2
trunk vlan 423 slot 12 erpd 3
trunk vlan 423 slot 12 erpd 4
trunk vlan 423 slot 12 erpd 5
!
mgmt ip 80.4.1.8 netmask 255.255.255.0 gateway 80.4.1.1
!
bh-erpd-mapping backhaul 0 erpd 0
bh-erpd-mapping backhaul 1 erpd 1
bh-erpd-mapping backhaul 2 erpd 2
bh-erpd-mapping backhaul 4 erpd 3
bh-erpd-mapping backhaul 5 erpd 4
bh-erpd-mapping backhaul 6 erpd 5
!
```

```
link-redundancy mode 6+2
!
```

This is a sample output of the **show running-config bh-erpd-mapping** command:

```
HA-Shelf-FCC# show running-config bh-erpd-mapping
Building configuration...
!
bh-erpd-mapping backhaul 0 erpd 0
bh-erpd-mapping backhaul 1 erpd 1
bh-erpd-mapping backhaul 2 erpd 2
bh-erpd-mapping backhaul 4 erpd 3
bh-erpd-mapping backhaul 5 erpd 4
bh-erpd-mapping backhaul 6 erpd 5
```

This is a sample output of the **show running-config link-redundancy** command:

```
HA-Shelf-FCC# show running-config link-redundancy
Building configuration...
!
link-redundancy mode 6+2
```

show sfp info

To display general information about an SFP+ port , use the **show sfp info** command in privileged EXEC mode.

show sfp info *port*

Syntax Description

port	Specifies the port number.

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show sfp info** command for all the line cards:

```
HA-Shelf-Slot-0# show sfp info
== SFP A0 EEPROM CONTENT ==
Reg 0x0000: 03 04 07 10 00 00 00 00  00 00 00 06 67 00 00 00
Reg 0x0010: 08 02 00 1e 43 49 53 43  4f 2d 46 49 4e 49 53 41
Reg 0x0020: 52 20 20 20 00 00 90 65  46 54 4c 58 38 35 37 34
Reg 0x0030: 44 33 42 43 4c 2d 43 53  41 20 20 20 03 52 00 c9
Reg 0x0040: 00 1a 00 00 46 4e 53 32  31 34 38 30 42 56 55 20
Reg 0x0050: 20 20 20 20 31 37 31 31  32 38 20 20 68 80 05 ee
Reg 0x0060: 00 00 02 e7 e9 e6 51 74  36 82 8d 94 b2 8e dd fb
Reg 0x0070: d6 15 07 00 00 00 00 00  00 00 00 00 36 7a 3d 6e
Identifier      :0x3
Ext.Identifier  :0x4
Connector       :0x7
Compliance Code :0x10
Encoding        :0x6
BR,Nominal      :0x67
Rate Identifier :0x0
Length(9um)-km  :0x0
Length(9um)     :0x0
Length(50 um)   :0x8
Length(62.5 um) :0x2
Length(Copper)  :0x0
Length(OM3)     :0x1e
Vendor name     :CISCO-FINISAR
Vendor OUI      :0x0 0x90 0x65
Vendor PN       :FTLX8574D3BCL-CS
Vendor Rev      :A
Wavelength      :850
CC Base         :0xc9
SN              :FNS21480BVU
== SFP A2 EEPROM CONTENT ==
CLEI            :COUIA8NCAA
PN              :10-2415-03
PID             :SFP-10G-SR
Reg 0x0000: 4b 00 fb 00 46 00 00 00  8d cc 74 04 87 5a 7a 76
Reg 0x0010: 19 64 07 d0 18 6a 09 c4  39 c7 02 e5 1c f5 07 46
```

```
Reg 0x0020: 3d e9 01 97 1f 07 03 ff  00 00 00 00 00 00 00 00
Reg 0x0030: 00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00
Reg 0x0040: 00 00 00 00 3f 80 00 00  00 00 00 00 01 00 00 00
Reg 0x0050: 01 00 00 00 01 00 00 00  01 00 00 00 00 00 00 bf
Reg 0x0060: 1f 30 80 69 10 e9 17 38  13 f7 00 00 00 00 30 00
Reg 0x0070: 00 00 00 00 00 00 00 00  ff ff ff ff ff ff ff 01
Reg 0x0080: 43 4f 55 49 41 38 4e 43  41 41 31 30 2d 32 34 31
Reg 0x0090: 35 2d 30 33 56 30 33 20  01 00 46 00 00 00 00 c6
Reg 0x00a0: 00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00
Reg 0x00b0: 00 00 00 00 00 00 00 00  00 00 00 00 00 00 aa aa
Reg 0x00c0: 53 46 50 2d 31 30 47 2d  53 52 20 20 20 20 20 20
Reg 0x00d0: 20 20 20 20 34 38 00 00  00 00 00 00 00 00 00 3c
Reg 0x00e0: 1e 20 2a 2a 31 34 29 36  00 00 00 00 00 00 00 00
Reg 0x00f0: 00 00 00 00 00 56 00 00  ff ff ff ff 00 00 00 00
```

show ssh

To display information on the SSH sessions, use the **show ssh** command in privileged EXEC mode.

show ssh session | **rpd-pubkey**

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.x	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show ssh** command:

```
HA-Shelf-FCC# show ssh session
connected session: 1
ssh password auth: on
ssh NMS pubkey num: 0

HA-Shelf-FCC# show ssh rpd-pubkey
Public key portion is:
ssh-rsa
[redacted]
 root@RPDBADBAD170C40
Fingerprint: md5 91:36:e5:4e:db:20:da:d5:e3:8f:3b:60:23:7a:57:66
F02-Shelf-eRPD-1/3#show ssh rpd-pubkey
```

show startup-config

To display the currently saved configuration, use the **show startup-config** command in privileged EXEC mode.

show startup-config

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show startup-config** command for all the line cards:

```
HA-Shelf-FCC# show startup-config
!
hostname prefix F02-Shelf
!
login password 21232f297a57a5a743894a0e4a801fc3
!
over-temp-shutdown enable
!
trunk vlan 423 slot 0 erpd 0
trunk vlan 423 slot 0 erpd 1
trunk vlan 423 slot 0 erpd 2
trunk vlan 423 slot 0 erpd 3
trunk vlan 423 slot 0 erpd 4
trunk vlan 423 slot 0 erpd 5
trunk vlan 423 slot 1 erpd 0
trunk vlan 423 slot 1 erpd 1
trunk vlan 423 slot 1 erpd 2
trunk vlan 423 slot 1 erpd 3
trunk vlan 423 slot 1 erpd 4
trunk vlan 423 slot 1 erpd 5
!
mgmt ip 80.4.1.7 netmask 255.255.255.0 gateway 80.4.1.1
!
bh-erpd-mapping backhaul 0 erpd 0
bh-erpd-mapping backhaul 1 erpd 1
bh-erpd-mapping backhaul 2 erpd 2
bh-erpd-mapping backhaul 3 erpd 3
bh-erpd-mapping backhaul 4 erpd 4
bh-erpd-mapping backhaul 5 erpd 5
!
link-redundancy mode N/A
!
```

show static l2tp

To display information on the static Layer 2 VPN, use the **show static l2tp** command in privileged EXEC mode.

show static l2tp tunnels | session | session link

Syntax Description

session	Displays information on the static Layer 2 VPN session.
session link	Displays information on the static Layer 2 VPN session link.
tunnels	Displays information on the Layer 2 VPN static tunnels.

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show static l2tp** command:

```
HA-Shelf-eRPD-0/0# show static l2tp
2019-01-22 00:33:16,663-cmd_ios.py-1114-ERROR-cli error:'module' object has no attribute
'STATIC_SYSTEM_INFO'
2019-01-22 00:33:16,665-cmd_ios.py-1115-WARNING-Traceback (most recent call last):
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1111, in cmdloop
    stop = self.onecmd(line)
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1051, in onecmd
    stop = func()
  File "/usr/lib/python2.7/site-packages/cli/l2tp_cli/l2tp_cli.py", line 192, in
show_static_l2tp
    system_type= l2tpMsg.STATIC_SYSTEM_INFO
AttributeError: 'module' object has no attribute 'STATIC_SYSTEM_INFO'

HA-Shelf-eRPD-0/0# show static l2tp session
2019-01-22 00:30:45,677-cmd_ios.py-1114-ERROR-cli error:'module' object has no attribute
'STATIC_SYSTEM_INFO'
2019-01-22 00:30:45,679-cmd_ios.py-1115-WARNING-Traceback (most recent call last):
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1111, in cmdloop
    stop = self.onecmd(line)
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1051, in onecmd
    stop = func()
  File "/usr/lib/python2.7/site-packages/cli/l2tp_cli/l2tp_cli.py", line 283, in
show_static_l2tp_session
    system_type = l2tpMsg.STATIC_SYSTEM_INFO
AttributeError: 'module' object has no attribute 'STATIC_SYSTEM_INFO'

HA-Shelf-eRPD-0/0# show static l2tp session link
2019-01-22 23:26:28,614-cmd_ios.py-1114-ERROR-cli error:'module' object has no attribute
'STATIC_SYSTEM_INFO'
2019-01-22 23:26:28,621-cmd_ios.py-1115-WARNING-Traceback (most recent call last):
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1111, in cmdloop
```

```
    stop = self.onecmd(line)
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1051, in onecmd
    stop = func()
  File "/usr/lib/python2.7/site-packages/cli/l2tp_cli/l2tp_cli.py", line 433, in
show_static_l2tp_session_link
    system_type = l2tpMsg.STATIC_SYSTEM_INFO
AttributeError: 'module' object has no attribute 'STATIC_SYSTEM_INFO'
```

```
HA-Shelf-eRPD-0/0# show static l2tp tunnel
2019-01-22 00:28:20,950-cmd_ios.py-1114-ERROR-cli error:'module' object has no attribute
'STATIC_SYSTEM_INFO'
2019-01-22 00:28:20,954-cmd_ios.py-1115-WARNING-Traceback (most recent call last):
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1111, in cmdloop
    stop = self.onecmd(line)
  File "/usr/lib/python2.7/site-packages/cli/cmd_ios/cmd_ios.py", line 1051, in onecmd
    stop = func()
  File "/usr/lib/python2.7/site-packages/cli/l2tp_cli/l2tp_cli.py", line 215, in
show_static_l2tp_tunnel
    system_type = l2tpMsg.STATIC_SYSTEM_INFO
AttributeError: 'module' object has no attribute 'STATIC_SYSTEM_INFO'
```

show tech-support

To display general information about the router when reporting a problem, use the **show tech-support** command in privileged EXEC mode.

show tech-support

Command Default None.

Command Modes Privileged EXEC (#) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show tech-support** command for all the line cards:

```
HA-Shelf-FCC# show tech-support
----14:01:22.147 Tue Jan 08 2019: show clock----
14:01:22.149 Tue Jan 08 2019


----14:01:22.149 Tue Jan 08 2019: show version----
Cisco FCC Software, version fcc_V2.1_20190104231640, build by yangluo, on 2019-01-04 15:18:08
Branch information:
FCC branch: hds_dev
OpenRPD branch: rphy_dev

System image file:
Current image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
Primary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
Secondary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"

System uptime: 12 hours, 56 minutes, 3 seconds

Last reload reason: Reboot

System memory information:
MemTotal:        1861548 kB
MemFree:         1014144 kB
MemAvailable:    1248236 kB
Buffers:            2840 kB
Cached:           302780 kB

For more credits info of HA-Shelf used open source, use "show version credits"



----14:01:22.955 Tue Jan 08 2019: show version all----
FCC:
 Cisco FCC Software, version fcc_V2.1_20190104231640, build by yangluo, on 2019-01-04
15:18:08
 Branch information:
 FCC branch: hds_dev
 OpenRPD branch: rphy_dev
```

```
 System image file:
 Current image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
 Primary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
 Secondary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"

 System uptime: 12 hours, 56 minutes, 4 seconds

 Last reload reason: Reboot

 System memory information:
 MemTotal:        1861548 kB
 MemFree:         1013500 kB
 MemAvailable:    1247592 kB
 Buffers:            2840 kB
 Cached:           302784 kB

Linecard slot 0:
 Cisco HDSHELF Software, version hdshelf_V2.1_20190104231640, build by yangluo, on 2019-01-04
 15:18:08
 Branch information:
 Linecard branch: hds_dev
 OpenRPD branch: rphy_dev

 System image file:
 Current image is from FCC
 Backup image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"

 System uptime: 12 hours, 53 minutes, 2 seconds

 Last reload reason: Powercycle

 System memory information:
 MemTotal:        5913552 kB
 MemFree:         2094440 kB
 MemAvailable:    2305652 kB
 Buffers:           20048 kB
 Cached:           478528 kB

For more credits info of HA-Shelf used open source, use "show version credits"



----14:01:25.053 Tue Jan 08 2019: show running-config----
Building configuration...
!
hostname prefix F02-Shelf
!
login password 21232f297a57a5a743894a0e4a801fc3
!
over-temp-shutdown enable
!
trunk vlan 423 slot 0 erpd 0
trunk vlan 423 slot 0 erpd 1
trunk vlan 423 slot 0 erpd 2
trunk vlan 423 slot 0 erpd 3
trunk vlan 423 slot 0 erpd 4
trunk vlan 423 slot 0 erpd 5
trunk vlan 423 slot 1 erpd 0
trunk vlan 423 slot 1 erpd 1
trunk vlan 423 slot 1 erpd 2
trunk vlan 423 slot 1 erpd 3
trunk vlan 423 slot 1 erpd 4
trunk vlan 423 slot 1 erpd 5
!
```

```
mgmt ip 192.0.2.1 netmask 255.255.255.0 gateway 192.0.2.2
!
bh-erpd-mapping backhaul 0 erpd 0
bh-erpd-mapping backhaul 1 erpd 1
bh-erpd-mapping backhaul 2 erpd 2
bh-erpd-mapping backhaul 3 erpd 3
bh-erpd-mapping backhaul 4 erpd 4
bh-erpd-mapping backhaul 5 erpd 5
!
link-redundancy mode N/A
!


----14:01:25.061 Tue Jan 08 2019: show platform----
Chassis type: HA-RPHY-CHASSIS

Slot       Type                State
---------- ------------------- ---------------
  LC0      HA-RPHY-6x12-LC     OK
  LC1      HA-RPHY-6x12-LC     OK
  PIC0     HA-RPHY-PIC         OK
  PIC1     HA-RPHY-PIC         OK
  PIC2     HA-RPHY-PIC         OK
  PIC3     HA-RPHY-PIC         OK
  PIC4     HA-RPHY-PIC         OK
  PIC5     HA-RPHY-PIC         OK
  P0       CBR-AC-PS           OK
  P1       CBR-AC-PS           OK
  P2       UNKNOWN             N/A
  P3       UNKNOWN             N/A
  FAN0     UNKNOWN             NORMAL
  FAN1     UNKNOWN             NORMAL
  FAN2     UNKNOWN             NORMAL
  FAN3     UNKNOWN             NORMAL
  FAN4     UNKNOWN             NORMAL


----14:01:26.791 Tue Jan 08 2019: show platform diag----
Chassis type: HA-RPHY-CHASSIS

HA-RPHY-FAN-TRAY:
 State                       : OK
 Software declared up time   : 12 hours, 56 minutes, 8 seconds
 Primary UBoot               : 181019 *
 Golden UBoot                : 180508
 IOFPGA version              : a209 (Primary)
 EOBC version                : 1.01

PIC0, HA-RPHY-PIC:
 State                       : OK

P0, CBR-AC-PS:
 State                       : OK

FAN0, UNKNOWN:
 State                       : NORMAL
 Physical insert detect time : 12 hours, 54 minutes, 10 seconds

LC0, HA-RPHY-6x12-LC:
 State                       : OK
 Software declared up time   : 12 hours, 53 minutes, 7 seconds
 Primary UBoot               : 23 *
 Golden UBoot                : 20
 FPGA version                : 2.3.15
```

```
 IOFPGA version              : c129
 ADM1266-0 firmware version  : 010a04
 ADM1266-0 config version    : A14
 ADM1266-1 firmware version  : 010a04
 ADM1266-1 config version    : A14
 ADM1266-2 firmware version  : 010a04
 ADM1266-2 config version    : A14
 JPLD version                : 0x2



----14:01:31.932 Tue Jan 08 2019: show inventory----
NAME: Cisco Smart PHY 7200 HA-Shelf Chassis
PID: HA-RPHY-CHASSIS    SN: FXS2209Q26V      VID: 04

----14:01:33.910 Tue Jan 08 2019: show erpd----
Slot Index IPv4           MAC               Master Online
0    0     ---            BA:DB:AD:17:0C:20        N
0    1     ---            BA:DB:AD:17:0C:21        N
0    2     ---            BA:DB:AD:17:0C:22        N
0    3     ---            BA:DB:AD:17:0C:23        N


----14:01:34.003 Tue Jan 08 2019: show redundancy----
Redundant System Information :
------------------------------
       Available system uptime = 1 day, 35 minutes
Switchovers system experienced = 0
              Standby failures = 0
       Last switchover reason = none


----14:01:34.005 Tue Jan 08 2019: show trunk vlan----
Slot  eRPD  VLAN
0     0     423
0     1     423

----14:01:34.058 Tue Jan 08 2019: show bh-erpd-mapping all----
LC 0 :
backhaul0 <---> erpd0
backhaul1 <---> erpd1
backhaul2 <---> erpd2
backhaul3 <---> erpd3
backhaul4 <---> erpd4
backhaul5 <---> erpd5

LC 2 is not up.

LC 12 is not up.

----14:01:34.161 Tue Jan 08 2019: show link-redundancy all----
LC 0 :
---------------------------
Backhaul |State   Role
---------|-----------------
0        |Active  Primary
1        |Active  Primary
2        |Active  Primary
3        |Active  Primary
4        |Active  Primary
5        |Active  Primary
6        |  -     Primary
7        |  -     Primary
---------------------------
```

```
LC 2 is not up.

LC 12 is not up.

----14:01:34.259 Tue Jan 08 2019: show group environment all----
Sensor List:  Environmental Monitoring
ID    Sensor                  State                Value
--    ------                  -----                -----
1     temp: Fan0 Inlet        NORMAL               35 Celsius
2     temp: Fan1 Inlet        NORMAL               32 Celsius
3     temp: Fan2 Inlet        NORMAL               33 Celsius
4     temp: Fan3 Inlet        NORMAL               32 Celsius
5     temp: Fan4 Inlet        NORMAL               28 Celsius
6     temp: PIC0 Exhaust Air1 NORMAL               28 Celsius
7     temp: PIC0 Exhaust Air2 NORMAL               27 Celsius
8     temp: PIC1 Exhaust Air1 NORMAL               28 Celsius

FCC module List:  Environmental Monitoring
Device name    State    PWM setpoint for fans   RPD inlet sensor reading used
-----------    -----    ---------------------   -----------------------------
FCC module     NORMAL   7000 RPM                31 Celsius

Fan module List:  Environmental Monitoring
ID    Fan module  State       Temperature     Speed
--    ----------  -----       -----------     -----
1     Fan 0       NORMAL      35 Celsius      6854 RPM
2     Fan 1       NORMAL      32 Celsius      6823 RPM
3     Fan 2       NORMAL      33 Celsius      6873 RPM
4     Fan 3       NORMAL      32 Celsius      6841 RPM
5     Fan 4       NORMAL      28 Celsius      6820 RPM

====================================
Slot      Controller          Value
------------------------------------
 P0        PEM Power           267 W
 P1        PEM Power           249 W
------------------------------------
Input Power Summary:     516 W
====================================
 LC0       FRU Power          136 W
 LC1       FRU Power          131 W
------------------------------------
Power Consumed Summary:    267 W
====================================
More Cards can be supported:
------------------------------------
LC:                          11
====================================


----14:01:36.367 Tue Jan 08 2019: show cpu all----
Slot  CPU%
0     30
1     37
FCC   0


----14:01:37.741 Tue Jan 08 2019: show memory all----
Slot  MemoryUsed  MemoryFree
0     3742896K    2170656K
1     3926620K    1986932K
FCC   866025K     1040199K
```

show tgc-clock

To view the sync state of the PTP clock, use the **show tgc-clock** command in privileged EXEC mode.

show tgc-clock *erpd* **state**

Command Default

None.

Command Modes

Privileged EXEC (#) (Line Card, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show tgc-clock** command for all the line cards:

```
HA-Shelf-eRPD-0/0# show tgc-clock 5 state
clock state       : SUB_SYNC
current tod       : 1546940711  Tue Jan  8 09:45:11 2019
  SCQAM0: 0x10a9c996
  SCQAM1: 0x10a9d72e
US Port 0:
  TOP: 0x10a9e32e, RCVR0: 0x10aa0c80, DELTA: 0x2952
  TOP: 0x10aa2d52, RCVR1: 0x10aa4780, DELTA: 0x1a2e
  TOP: 0x10aa6582, RCVR2: 0x5b58000, DELTA: 0xf50b1a7e
  TOP: 0x10aaa5be, RCVR3: 0x5b5c000, DELTA: 0xf50b1a42
  TOP: 0x10aadc91, RCVR4: 0x5b5a000, DELTA: 0xf50ac36f
  TOP: 0x10ab103b, RCVR5: 0x5b5c000, DELTA: 0xf50aafc5
  TOP: 0x10ab4a96, RCVR6: 0x5b5c000, DELTA: 0xf50a756a
  TOP: 0x10ab7c85, RCVR7: 0x5b5e000, DELTA: 0xf50a637b
  TOP: 0x10abc1e4, RCVR8: 0x5b60000, DELTA: 0xf50a3e1c
  TOP: 0x10ac12f7, RCVR9: 0x10ac3e00, DELTA: 0x2b09
  TOP: 0x10ac5945, RCVR10: 0x5b62000, DELTA: 0xf509c6bb
  TOP: 0x10ac9a3f, RCVR11: 0x5b66000, DELTA: 0xf509c5c1
US Port 1:
  TOP: 0x10acdaea, RCVR0: 0x5b44000, DELTA: 0xf5076516
  TOP: 0x10ad1b95, RCVR1: 0x5b4c000, DELTA: 0xf507a46b
  TOP: 0x10adb626, RCVR2: 0x5b4e000, DELTA: 0xf50729da
  TOP: 0x10ae3980, RCVR3: 0x5b62000, DELTA: 0xf507e680
  TOP: 0x10af5161, RCVR4: 0x5b62000, DELTA: 0xf506ce9f
  TOP: 0x10af9bc5, RCVR5: 0x5b64000, DELTA: 0xf506a43b
  TOP: 0x10afd414, RCVR6: 0x5b64000, DELTA: 0xf5066bec
  TOP: 0x10b00fcb, RCVR7: 0x5b68000, DELTA: 0xf5067035
  TOP: 0x10b053ae, RCVR8: 0x5b68000, DELTA: 0xf5062c52
  TOP: 0x10b097c1, RCVR9: 0x5b6a000, DELTA: 0xf506083f
  TOP: 0x10b0cd66, RCVR10: 0x5b6a000, DELTA: 0xf505d29a
  TOP: 0x10b0fdd9, RCVR11: 0x5b6c000, DELTA: 0xf505c227
```

show tod

To display the date and time of the day, use the **show tod** command.

show tod

Command Default

None.

Command Modes

Privileged EXEC (#) (Non-Primary eRPD and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show tod** command:

```
HA-Shelf-eRPD-0/0# show tod
Server       TimeOffset  Time                 Status
10.79.41.66  32400       2019 Jan 22 00:25:36  OK
```

show trunk vlan

To view virtual LAN configuration on your Remote PHY Shelf 7200 device, use the **show trunk vlan** command in privileged EXEC mode.

show trunk vlan

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show trunk vlan** command:

```
HA-Shelf-FCC# show trunk vlan
Slot  eRPD  VLAN
0     0     423
0     1     423
0     2     423
0     3     423
0     4     423
0     5     423
1     0     423
1     1     423
1     2     423
1     3     423
1     4     423
1     5     423
```

Commands: show u through show z

show upstream oob configuration

To display the upstream oob configuration, use the **show upstream oob configuration** command in privileged EXEC mode.

show upstream oob configuration 55d1 | 55d2 uepi 55d1 | uepi 55d2 ndr

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is a sample output of the **show upstream oob configuration ndr** command. The command displays the NDR in OOB channel configuration:

```
R-PHY#show upstream oob configuration ndr

USOOB NDR bcm configuration:
Port Chan IntChan State Enabled Frequency Mode     Sessionid  QOS MTU  PowerAdjust CalcuFreq
   RegFreq     VGA   Gain  SetPoint
0    1    1       UP    1       5000000   1.28 MHz 0xf0001111 0   1500 0           3f9c0000
    3f9c0000    11    14    0.000000


NDR Server information
gch ipv6 dip             dipv6                                  dmac              mtu
qos
1   1    0.0.0.0         2001:30:84:0:1:0:36:e523               c4:14:3c:16:d4:07 1500
0
```

show version

To view the configuration of the system hardware, the software version, the names and sources of configuration files, and the boot images, use the **show version** command in privileged EXEC mode.

Use the **show version all** command in the FCC and the Primary eRPD mode only.

show version [all]

Command Default

None.

Command Modes

Privileged EXEC (#) (FCC, Line Card, Primary eRPD, and Non-Primary eRPD)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.1	This command was introduced on the Cisco Remote PHY Shelf 7200.

This is a sample output of the **show version** command:

```
HA-Shelf-FCC# show version
Cisco FCC Software, version fcc_V2.1_20190104231640, build by yangluo, on 2019-01-04 15:18:08
Branch information:
FCC branch: hds_dev
OpenRPD branch: rphy_dev

System image file:
Current image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
Primary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
Secondary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"

System uptime: 13 hours, 8 minutes, 50 seconds

Last reload reason: Reboot

System memory information:
MemTotal:        1861548 kB
MemFree:         1008536 kB
MemAvailable:    1242664 kB
Buffers:            2840 kB
Cached:           304344 kB

For more credits info of HA-Shelf used open source, use "show version credits"
```

This is a sample output of the **show version all**command:

```
HA-Shelf-FCC# show version all
FCC:
 Cisco FCC Software, version fcc_V2.1_20190104231640, build by yangluo, on 2019-01-04
15:18:08
 Branch information:
 FCC branch: hds_dev
 OpenRPD branch: rphy_dev

 System image file:
 Current image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
 Primary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
 Secondary image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"
```

```
 System uptime: 13 hours, 9 minutes, 1 seconds

 Last reload reason: Reboot

 System memory information:
 MemTotal:        1861548 kB
 MemFree:         1008504 kB
 MemAvailable:    1242632 kB
 Buffers:            2840 kB
 Cached:           304368 kB

Linecard slot 0:
 Cisco HDSHELF Software, version hdshelf_V2.1_20190104231640, build by yangluo, on 2019-01-04
 15:18:08
 Branch information:
 Linecard branch: hds_dev
 OpenRPD branch: rphy_dev

 System image file:
 Current image is from FCC
 Backup image is "/bootflash/openwrt-bundle-190104_231125.itb.sign"

 System uptime: 13 hours, 5 minutes, 59 seconds

 Last reload reason: Powercycle

 System memory information:
 MemTotal:        5913552 kB
 MemFree:         1974144 kB
 MemAvailable:    2192664 kB
 Buffers:           21196 kB
 Cached:           525144 kB

For more credits info of HA-Shelf used open source, use "show version credits"
```

Commands: u through z

upgrade control

To display information on the software upgrade, use the **upgrade control** command.

upgrade control[**abort**][**start**][**show config**][**show status**]

Syntax Description

abort	Stops the software upgrade process.
start	Starts the software updgrade process.
show config	Displays the configuration.
show status	Displays the status of the software upgrade process.

Command Default

None.

Command Modes

Privileged EXEC (#) FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.x	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following are some sample output of the **upgrade control** command:

```
HA-Shelf-FCC# upgrade control abort
No software upgrade process found to abort.
```

```
HA-Shelf-FCC# upgrade control show config
Image upgrade parameters have not been configured.
```

upgrade hw-programmable

To display information on the hardware programmable upgrade, use the **upgrade hw-programmable** command.

upgrade hw-programmable [**fcc** [**cpld** *LINE*][**eobc** *LINE*][**uboot** *LINE*] | **linecard** [*NUMBER IOFPGA LINE*][*NUMBER JPLD LINE*][*NUMBER UBOOT LINE*]]

Syntax Description

fcc	Displays the FCC upgrade related information.
linecard	Displays the RPD Linecard upgrade related information.

Command Default

None.

Command Modes

Privileged EXEC (#) FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.x	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following are some sample output of the **upgrade control** command:

```
HA-Shelf-FCC# upgrade hw-programmable fcc cpld http
10.1.1.1/example/example.pkg
Connecting to 10.1.1.1 (10.1.1.1:80)
wget: can't connect to remote host (10.1.1.1): Connection refused
get package from http failed

HA-Shelf-FCC# upgrade hw-programmable fcc uboot http
10.74.59.226/bundle/181107_231152/hdshelf_firmwarev_2.1_181107_231152.pkg.sign
Connecting to 10.74.59.226 (10.74.59.226:80)
hdshelf_firmware.pkg 100%
|*******************************************************************************************************|
  4132k  0:00:00 ETA
packageName: /tmp/hdshelf_firmware.pkg.sign, imagename: fcc_uboot.bin, mountDir: /tmp/fw
Processing /tmp/hdshelf_firmware.pkg.sign st_size 4231568 0x409190

RSA Signed DEVELOPMENT Image Signature Verification Successful.
image verify OK
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Attention: FCC Uboot upgrade in process
Please do not power off chassis.
Current version:
Upgrade version: 181019
Erasing block: 6/6 (100%)
Writing kb: 670/670 (100%)
Verifying kb: 670/670 (100%)
Upgrade Succeed
Attention: Please Rboot FCC to let the upgrade take effect !!!
HA-Shelf-FCC#reboot
reboot request by PID 9532 'python /usr/lib/python2.7/site-packages/cli/cli_main.py '
Self reboot
……
```

upgrade set server

To display information on the image server for upgrade, use the **upgrade set server** command.

upgrade set server *WORD filename*

Command Default

None.

Command Modes

Privileged EXEC (#) FCC)

Command History

Release	Modification
Cisco Remote PHY Shelf 7200 Software 1.x	This command was introduced on the Cisco Remote PHY Shelf 7200.

The following is an example of the usage of **upgrade set server <WORD> filename** command:

```
HA-Shelf-FCC# upgrade set server 10.74.59.226 filename
/bundle/190309_234300/openwrt-bundle-190309_234300.itb.sign transport
http
```

You also need to use the **upgrade control start** command to automatically upgrade the server. Go through the upgrade control, on page 102.

write

Use the **write** command to write a running configuration to the startup configuration.

write

Command Default

None.

Command Modes

Global configuration mode (config) (FCC and Primary eRPD)

Command History

Release	Modification
Cisco Smart PHY 7200 Software 1.x	This command was introduced on the Cisco Smart PHY 7200.

Usage Guidelines

Use the **write** command to write a running configuration to startup configuration.

The following example shows how to run the write command:

```
HA-Shelf# write
Building configuration...
Write startup configuration successfully.
```