Power Configuration for Compact Shelf

This document describes how to configure the RF channel's power level, the input power level for the upstream radio frequency (RF) carrier, and the base channel power level for Compact Shelf.

Your software release may not support all the features that are documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. The Feature Information Table at the end of this document provides information about the documented features and lists the releases in which each feature is supported.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to http://tools.cisco.com/ITDIT/CFN/. An account on http://www.cisco.com/ is not required.

Hardware Compatibility Matrix for Cisco Remote PHY Device

Note Unless otherwise specified, the hardware components introduced in a given Cisco Remote PHY Device Software Release are supported in all subsequent releases.

Table 1: Hardware Compatibility Matrix for the Cisco Remote PHY Device

Cisco HFC Platform	Remote PHY Device
Cisco GS7000 Super High Output Node	Cisco 1x2 / Compact Shelf RPD Software 2.1 and Later Releases

Cisco HFC Platform	Remote PHY Device

Cisco GS7000 Super High Output Intelligent Node (iNode)	Cisco 1x2 / Compact Shelf RPD Software 4.1 and Later Releases
	
	Cisco Intelligent Remote PHY Device 1x2
	
	   • PID—iRPD-1X2=
	
	   • PID—iRPD-1X2-PKEY=

Note   The -PKEY suffix in the PID indicates units that enable the SCTE-55-2 Out-of-Band protocol support.

Information about Power Configuration for Compact Shelf

For Compact Shelf, new commands have been added to configure RF channel's power level, the input power level for the upstream radio frequency (RF) carrier, and the base channel power level.

How to Configure Base Power, Downstream Power Level, and Upstream Power Level

This section describes how to configure base power, downstream power level, and upstream power level on Compact Shelf.

Configuring Maximum Carriers

To configure the maximum number of carriers, complete the following procedure. The default number of maximum carriers specified is 158. The maximum number of carrier ranges from 1–158.

```
configure terminal
cable rpd name
rpd-ds port max-carrier value
```

This is an example of maximum carrier configuration:

```
Router# configure terminal
Router(config)#cable rpd node6
Router(config-rpd)#rpd-ds 0 max-carrier 128
```

Configuring Base Channel Power Level

To set the base channel power level, complete the following procedure. The base channel powel level range is 25–34.

```
configure terminal
cable rpd name
rpd-ds port base-power value
```

This is an example of base channel power level configuration.

```
Router# configure terminal
Router(config)#cable rpd node6
Router(config-rpd)# rpd-ds 0 base-power 30
```

Configuring RF Channel Power Level

To adjust the RF channel's power level, complete the following procedure. The RF channel power level range is 7–23

```
configure terminal
cable rpd name
rpd-ds port rf-channel number power-adjust value
```

This is an example of RF channel power level.

```
Router# configure terminal
Router(config)#cable upstream controller-profile 221
Warning: changes to this profile will affect the following controllers:
        9/0/10,

Confirm to continue? [no]: yes
Router(config-controller-profile)#us
Router(config-controller-profile)#us-channel 0 pow
Router(config-controller-profile)#us-channel 0 power-level ?
  <-7 - 25>  Power level in dBmV(-4~25 for rphy-node, -7~23 for rphy-shelf)

Router(config-controller-profile)#us-channel 0 power-level 23
```

Note   Starting with Cisco IOS XE Dublin 17.12.1, Basepower of the RF port is not sent by Aux core. All other port level configurations (Adminstate, RF mute, TiltSlope, and Pilot tone related.) are only sent by principle core.