# **9** Managing RCs

# **About This Chapter**

This function is performed to set the RC attributes and the RC extended attributes to lock or unlock an RC, to reset an RC, and to perform automatic power control function.

### 9.1 Managing RC Attributes

This function is performed to view and set the ARFCN (frequency number of the current RC).

### 9.2 Managing RC Extended Attributes

This function is performed to view or set the extended RC attribute parameters, including static power level, saturation threshold, saturation voltage threshold, and power mode.

# 9.3 Changing RC Management States

This function is performed to lock or unlock an RC.

### 9.4 Initializing RCs

This function is performed to reset an RC. After the RC is reset, the DTMU/DOMU sends the saved configuration data to the RC again to validate these configuration data.

### 9.5 Obtaining Automatic Power Control Type

This function is performed to enable the user to obtain the frequency band of an RC and to indicate whether the RC supports the automatic power control function.

### 9.6 Obtaining RC Power Modes

This function is performed to view the power type and the current work mode of an RC.

# 9.1 Managing RC Attributes

This function is performed to view and set the ARFCN (frequency number of the current RC).

# Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

# Context

 Table 9-1 lists the description of the parameter configuration.

Table 9-1 Parameters in the RC Attributes Management dialog b	ox
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Parameter Name	Meaning	Value Range
ARFCN	Determines the frequency number of the RC	• 850 MHz: 124 frequencies numbered from 128 to 251
		• 900 MHz: 193 frequencies numbered from 1 to 124 and 955 to 1023
		• 1800 MHz: 374 frequencies numbered from 512 to 885
		• 1900 MHz: 299 frequencies numbered from 512 to 810

# Procedure

Step 1 In the left pane of the Site Maintenance Terminal System window, select RC. In the right pane of window, double-click RC Attributes Management.

The RC Attributes Management dialog box is displayed, as shown in Figure 9-1.

Figure 9-1 RC attributes management

RC Attributes Mana	igement		>	<
RF Parameters				[
	ARFCN:	512	-	
<u>S</u> et	<u>R</u> efresh		<u>C</u> lose	_
Setting RC attributes s	ucceeded.			

### Step 2 Enter a value in ARFCN.

### 

The parameters displayed on the terminal are the activated parameters on the BTS. You can adjust their values.

### Step 3 Click Set.

The RC attributes are set successfully. The result is displayed on the status bar in the **RC Attributes Management** dialog box,

### Step 4 Click Refresh.

The RC attributes are set successfully. The result is displayed on the status bar in the **RC Attributes Management** dialog box, as shown in **Figure 9-1**.

The configure operation enables the site maintenance terminal to activate the parameters on the BTS. The refresh operation enables the site maintenance terminal to obtain the latest data from the BTS. You can perform the refresh operation to confirm the accuracy of data.

----End

# 9.2 Managing RC Extended Attributes

This function is performed to view or set the extended RC attribute parameters, including static power level, saturation threshold, saturation voltage threshold, and power mode.

### Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

### Context

 Table 9-2 lists the description of the parameter configuration.

Parameter Name	Meaning	Value Range
Static power level	Based on the local network coverage, you can change the static power level to change the power and the coverage.	$0 \sim 10$
Saturation Threshold	This parameter determines whether the random access is the valid access request. If the level on the RACH is greater than this threshold and smaller than the <b>Random Access Error Threshold</b> , the BTS considers the access as valid. Set this parameter according to the actual BTS sensitivity and the lowest MS access level.	0–5 (1 is the default value.)
Saturation Voltage Threshold	Determines the maximum level value of the access. If the voltage of the access exceeds this threshold, the access is invalid.	0–255

Table 9-2 Parameters in the RC Extended Attribute Management dialog box

Parameter Name	Meaning	Value Range
Power Mode	Current work mode, that is, power type of a DTRU.	<ul> <li>Not known, 40 W, 60 W (BTS3012, BTS3012AE)</li> <li>40 W, 55 W, 63 W (BTS3006C)</li> </ul>

### Procedure

Step 1 In the left pane of the Site Maintenance Terminal System window, select RC. In the right pane of the window, double-click RC Extended Attributes Management.

The RC Extended Attributes Management dialog box is displayed, as shown in Figure 9-2.

Figure 9-2 RC extended attribute management

RC	C Extended Attributes Management	×
	Extended attribute:	
	Static Power Level: 2	_
	Saturation Threshold: 1	
	Saturation Voltage Threshold: 0	_
	Power Mode:	
l	<u>S</u> et <u>R</u> efresh	
Se	et RC extended attributes successfully.	

Step 2 Set the parameters of the RC extended attributes.

### 

The parameters displayed on the terminal are the activated parameters on the BTS. You can adjust their values.

Step 3 Click Set.

The extended attribute is set successfully. The result is displayed on the status bar in the **RC Extended Attributes Management** dialog box, as shown in **Figure 9-2**.

The configure operation enables the site maintenance terminal to activate the parameters on the BTS. The refresh operation enables the site maintenance terminal to obtain the latest data from the BTS. You can perform the refresh operation to confirm the accuracy of data.

----End

# 9.3 Changing RC Management States

This function is performed to lock or unlock an RC.

# Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

# Context



When the RC management state is set to Locked, all the channels on the RC are in out of service state. That is, the RC cannot provide any service. Therefore, you should perform this function carefully.

### Procedure

Step 1 In the left pane of the Site Maintenance Terminal System window, select RC. In the right pane of the window, double-click Change RC Management State.

The Change RC Management State dialog box is displayed, as shown in Figure 9-3.

Figure 9-3 Changing the RC management state

Change RC Management State	×
Select RC	Operational result:
<ul> <li>Current RC</li> </ul>	Changing RC0 management state to UNLOCKED succ
C All RCs of Current Cell	
Management state	
C LOCKED	
UNLOCKED	

Step 2 Choose an RC and select a management state.

### 

The parameters displayed on the terminal are the activated parameters on the BTS. You can adjust their values.

#### Step 3 Click OK.

The RC management state is changed successfully. In the **Change RC Management State** dialog box, the result is displayed in the **Operational result** list box, as shown in **Figure 9-3**.

----End

# 9.4 Initializing RCs

This function is performed to reset an RC. After the RC is reset, the DTMU/DOMU sends the saved configuration data to the RC again to validate these configuration data.

### Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

### Context



This function is performed to reset the RC hardware. All the services of the RC are interrupted during the reset. Therefore, you should perform this function carefully.

# Procedure

Step 1 In the left pane of the Site Maintenance Terminal System window, select RC. In the right pane of the window, double-click RC Reinitialization.

The **RC Reinitialization** dialog box is displayed.

Step 2 Click OK.

The RC is reinitialized successfully. The result is displayed in the **RC Reinitialization** dialog box, as shown in **Figure 9-4**.

#### Figure 9-4 RC reinitialization

RC	C Reinitialization	×
	On and found and the	
	Operational result:	
	RC reinitialize successfully.	
	<u>o</u> k	<u>C</u> lose
_		

# 9.5 Obtaining Automatic Power Control Type

This function is performed to enable the user to obtain the frequency band of an RC and to indicate whether the RC supports the automatic power control function.

# Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

# Context

The automatic power control function can keep the frequency of the RC within a fixed range.

### Procedure

In the left pane of the **Site Maintenance Terminal System** window, select **RC**. In the right pane of the window, double-click **Get Auto Power Adjustment Type**.

The auto power adjustment type is obtained successfully. The result is displayed on the status bar in the **Get Auto Power Adjustment Type** dialog box, as shown in **Figure 9-5**.

Figure 9-5 Get Auto Power Adjustment Type dialog box

G	Get Auto Fower Adjustment Type			
	Auto Power Adjustment Type			
	C Auto Power Adjustment Not Support	C E-GSM900 Auto Power Adjustment Not Support		
	C P-GSM900 Auto Power Adjustment	C R-GSM900 Auto Power Adjustment Not Support		
	C E-GSM900 Auto Power Adjustment	C PCS1900 Auto Power Adjustment Not Support		
	C R-GSM900 Auto Power Adjustment	C PCS1900 AutoPower Adjustment		
	C DCS1800 Auto Power Adjustment	C GSM850 Auto Power Adjustment Not Support		
	P-GSM900 Auto Power Adjustment Not Support	C GSM850 Auto Power Adjustment		
	C DCS1800 Auto Power Adjustment Not Support	🔿 Unknown		
<u><u>Close</u></u>				
G	Get Auto Power Adjustment Type Successfully.			

### 

This command is used only for viewing.

----End

# 9.6 Obtaining RC Power Modes

This function is performed to view the power type and the current work mode of an RC.

# Prerequisite

You have logged in to the BTS through the Site Maintenance Terminal.

# Procedure

In the left pane of the **Site Maintenance Terminal System** window, select **RC**. In the right pane of the window, double-click **Get RC Power Mode**.

The **Get RC Power Mode** dialog box is displayed. The query result is displayed, as shown in **Figure 9-6**.

Figure 9-6 Obtaining the RC power mode

Get Auto Power Adjustment Type			
C Auto Power Adjustment Not Support	C E-GSM900 Auto Power Adjustment Not Support		
C P-GSM900 Auto Power Adjustment	C R-GSM900 Auto Power Adjustment Not Support		
C E-GSM900 Auto Power Adjustment	C PCS1900 Auto Power Adjustment Not Support		
C R-GSM900 Auto Power Adjustment	C PCS1900 AutoPower Adjustment		
C DCS1800 Auto Power Adjustment	C GSM850 Auto Power Adjustment Not Support		
C P-GSM900 Auto Power Adjustment Not Support	C GSM850 Auto Power Adjustment		
C DCS1800 Auto Power Adjustment Not Support	🔿 Unknown		
<u>Close</u>			

----End