

# Carrier Aggregation & Dual Carrier (Split Mode)

## **Configuration Guide**

BaiBS\_QRTB\_2.5.4 BaiBS\_RTD\_3.7.5

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Version 1.7

### **About This Document**

This document is intended for installers, field technicians, and network administrators responsible for configuring a Baicells two-carrier Nova-436Q or Neutrino-430 eNodeB (eNB) for Carrier Aggregation (CA) or Dual Carrier (DC) / split mode operation or a Baicells two-carrier Nova-246 eNodeB (eNB) for Dual Carrier (DC). In CA mode, the eNB operates as a single cell using all available contiguous or non-contiguous channels in the band to increase capacity. In DC mode, the eNB operates as two independent carriers.

The information in this document is built on the assumption that (a) the user is familiar with and has experience in installing single-carrier Baicells eNBs and (b) the two-carrier eNB to be configured is already installed and in standard single carrier mode. It has basic configuration settings, and is verified as operational per the *Nova-436Q OD 4x1W Two-Carrier TDD eNB Installation Guide* or the *Nova-246 OD 2x20W Two-Carrier TDD eNB Installation Guide*.

This guide pertains only to the setting differences specific to CA and DC configuration. For the full complement of features and configuration settings that are available through the eNB GUI and the Baicells Operations Management Console (OMC), refer to the Baicells *eNodeB Configuration Guide* and *CloudCore Configuration and Network Administration Guide*. To configure HaloB, please refer to the *HaloB User Guide*. For CBRS Spectrum Access System (SAS) operation, refer to the *SAS Deployment Guide*.

This CA & DC configuration guide is based on the following eNB software versions:

- BaiBS\_QRTB\_2.5.4 (Nova-436Q, Neutrino-430)
- BaiBS\_RTD\_3.7.5 (Nova-246)

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### **Support Resources**

- Documentation Baicells product data sheets and technical manuals can be found at *Baicells > Support > Documents*.
- Support Open a support ticket, process an RMA, or use the Support Forum at *Baicells > Support*.

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### 1. Overview

### 1.1 Description

A two-carrier eNodeB (eNB) such as the Baicells Nova-436Q, Neutrino-430, or Nova-246 gives operators even more flexibility in meeting coverage and capacity requirements. Two key operating modes supported only by two-carrier systems are Carrier Aggregation (CA) - also referred to as two-component carrier aggregation (CCA) - and Dual Carrier (DC) / split mode. Each mode is available for the Nova-436Q and Neutrino-430 via software license. Dual Carrier (DC) / split mode is available for the Nova-246 via software license.

In CA mode, the eNB can aggregate frequencies across the band, in most cases even channels that are not adjacent. Doing so can virtually double the downlink capacity of the eNB when communicating with subscribers who are all using CAT6/7 or higher customer premise equipment (CPE). This operating mode is especially pertinent in a cell area where there is high population density. The CA software supports 2x10 MHz and 2x20 MHz configurations, resulting in a maximum possible bandwidth of 40 MHz. The carriers in a two-carrier eNB are distinguished in the GUI as:

- Primary Cell (Pcell) Cell 1
- Secondary Cell (Scell) Cell 2

In DC mode, each carrier is treated as an individual cell, operating independently to support split sectors. Each cell supports 5 MHz, 10 MHz, 15 MHz, or 20 MHz bandwidth, and the two configurations do not have to be parallel, e.g., Cell 1 could be configured as 10 MHz and Cell 2 could be configured as 15 MHz. This gives operators more flexibility in managing the spectrum they are authorized to use. Each cell also has its own physical pair of antenna connectors. The operator can select a single 4-port antenna or two 2-port antennas. Antenna ports ANTO and ANT1 connect to the Pcell. Antenna ports ANT2 and ANT3 connect to the Scell.

NOTE: If the mode is set to single carrier, only Cell 1 will operate using just antenna ports 0 and 1.

Some of the other differences in planning, installing, configuring, and operating a two-carrier eNB in either mode include the following:

- In the Baicells Operations Management Console (OMC), each carrier will be listed on a separate row.
- In DC mode, if using two 2-port antennas with the antennas pointing in opposite directions, you can keep the same values for the EARFCN and PCI settings for both cells. But, if you are using two 2-port antennas with the antennas *not* pointing in opposite directions, you must manually change one of the cell's EARFCN and PCI settings to keep the two cells from interfering with each other.
- Some parameters are configured for Cell 1 and not for Cell 2, such as Global Positioning System (GPS) settings, WAN interface, and software upgrades. Cell 2 will accept the same configuration as Cell 1 for these settings.

• Rebooting or upgrading one cell will automatically reboot or upgrade the other cell.

### 1.2 Scope of This Document

The information in this document is built on the assumption that (a) the user is familiar with and has experience installing single-carrier Baicells eNBs; and (b) the two-carrier eNB to be configured is already installed *and*, in standard single carrier mode, already has basic configuration settings for network connectivity and is verified as operational per the *Nova-436Q OD 4x1W Two-Carrier TDD eNB Installation Guide* or the *Nova-246 OD 2x20W Two-Carrier TDD eNB Installation Guide*.

This guide pertains only to the configuration and operational differences specific to CA and DC modes. It does not cover any other operating modes nor all of the eNB features that are available. Following are related document resources that can be found on the Baicells website under Support > *Documents*.

- Nova-436Q, Neutrino-430, and Nova 246 Data Sheets -- technical specifications for the eNBs
- Nova-436Q, Neutrino-430, and Nova 246 Installation Guide -- provides installation procedures, basic configuration, and how to verify that the newly installed eNB is operational and can connect to the network
- **CloudCore Configuration & Network Administration Guide** -- covers all configuration GUI menus and fields for the CloudCore System, OMC, and BOSS.
- eNodeB Configuration Guide -- covers all configuration GUI menus and fields for the eNodeBs.
- **CPE Configuration Guide** -- covers all configuration GUI menus and fields for the CPEs.
- HaloB User Guide -- describes the benefits of HaloB, how the eNB operates differently from standard mode, and how to configure/enable/disable HaloB
- **SAS Deployment Guide** -- overviews the process of configuring the Part 96 certified eNBs and OMC for CBRS Spectrum Access System (SAS) operation

#### 

Proceed to *section 2 Carrier Aggregation* or *section 3 Dual Carrier (Split Mode)* based on your licensed Nova-436Q, Neutrino-430, or Nova-246 software mode.

### 2. Carrier Aggregation

NOTE: This section applies to the Nova-436Q and Neutrino-430 only.

Follow the steps below to transition the Nova-436Q or the Neutrino-430 eNB to CA mode.

- 1. Log in: Open a Web browser, and enter <u>192.168.150.1</u>. If you have not changed the eNB's initial *username and password, use the defaults: admin/admin.*
- 2. **Import carrier aggregation license**: Go to BTS Setting > License Management and perform the following steps (Figure 2-1):
  - a. Click on Select File.
  - b. Find and highlight the Carrier Aggregation Function target file.
  - c. Click on Import License.

Figure 2-1: Import Licenses to Enable Carrier Aggregation

BTS Info 🔹		License			
System 🔻		Select License File			
Network 👻			Select File		
BTS Setting 🔺		Import License			
Security Setting					
Management Server		License List			
Sync Setting					
HaloB Setting		ID	Description	Capacity	Remain Time(unit:day)
License Management	>	FAP001	HaloB with centralized mode	0	Permanent
		FAP002	HaloB with standalone mode	0	Permanent
Carrier Setting		FAP009	Carrier Aggregation Function	0	Permanent
Lte Setting 💎		FAP010	Dual Carrier Function	0	Permanent
Reboot					
Logout					

3. **Configure carrier setting**: Go to BTS Setting > Carrier Setting (Figure 2-2). The *Carrier Mode* field has a pull-down menu where you can select *Single Carrier* or *Dual Carrier*. (The default values should already be configured correctly for CA.) Verify that *Dual Carrier* (meaning two carriers, not split mode) is selected. If it is not already checked, select the *Carrier Aggregation Enabled* check box to enable carrier aggregation.

#### Figure 2-2: Carrier Setting for Carrier Aggregation Mode

BTS Info	-	Carrier Setting
System	-	Carrier Mode
Network	-	Dual Carrier   Carrier Aggregation Enab
BTS Setting		
Security Setting		
Management Server		Save Cancel
Sync Setting		
HaloB Setting		
License Management		
Carrier Setting	>	

- Reboot and verify status: For the settings to take effect, the eNB will reboot; if it does not reboot, manually reboot the eNB. After the eNB completes its boot-up sequence, again check the BTS Info > Basic Info Cell Status (Figure 2-3).
  - Cell Status is Active
  - GPS Sync Status is Synchronized
  - RF Status(CELL1) and (CELL2) are both ON

#### Figure 2-3: Verify Cell Status

BTS Info Basic Info Quick Setting System Network BTS Setting Lte Setting	* * *	Basic Info Product Type Hardware Version Software Version SN Number MAC	mE E0 Ba 48	S31001 I BS_QRTB_2.5.4 BF:74:0B:FA:2A	•
Reboot		Status Info			
Logout		Link Speed Negot WAN Link Status HaloB Status	iated 10 Co	00Mb/s nnected F	
		Cell Status	Ac	tive	
		MME1 Status	Co	nnected	
		MME2 Status	Co	nnected	
		OMC Status	Co	nnected	
		IPSec Tunnel1 Sta	tus Co	nnected	
		IPSec Tunnel2 Sta	tus Co	nnected	
		GPS Sync Status	Syr	nchronized	
		RF Status(CELL1)	01	1	
		RF Status(CELL2)	Of		
		Carrier Mode	Ca	rrier Aggregation	
		Radio Resource U UL PRB Usage(CELL1)	DL PRB Usage(CELL1)	UL PRB Usage(CELL2)	DL PRB Usage(CELL2)
		0%	0%	0%	0%

Your Nova-436Q is now set up to run in CA mode.

### 3. Dual Carrier (DC) / Split Mode

When transitioning the Nova-436Q eNB, the Neutrino-430, or the Nova-246 eNB to DC/split mode, you will first log in to import the license and configure carrier settings. Then, you will reboot the eNB, configure key settings for Cell 1 and Cell 2, reboot the eNB again, and verify the status of both cells. The steps imply the eNB is connecting to the Baicells North America CloudCore EPC.

### 3.1 Nova-436Q/Neutrino-430 eNB

Follow the steps below to transition the Nova-436Q or the Neutrino-430 eNB to DC/split mode.

- 1. Log in: Open a Web browser, and enter <u>192.168.150.1</u>. If you have not changed the eNB's initial username and password, use the defaults: *admin/admin*.
- 2. **Import dual carrier (split mode) license**: Go to BTS Setting > License Management and perform the following steps (Figure 3-1):
  - a. Click on Select File.
  - b. Find and highlight the Dual Carrier Function target file.
  - c. Click on Import License.

#### Figure 3-1: Import License to Enable Dual Carrier (DC) / Split Mode

BTS Info	*	License			
System	•	Select License File			
Network	*		Select File		
BTS Setting	A.,	Import License			
Security Setting					
Management Server		License List			
Sync Setting					
HaloB Setting		ID	Description	Capacity	Remain Time(unit:day)
License Management	>	FAP010	Dual Carrier Function	0	Permanent
Carrier Setting					
Lte Setting	*				
Reboot					
Logout					

3. **Configure carrier setting**: Go to BTS Setting > Carrier Setting (Figure 3-2). For the *Carrier Mode* select *Dual Carrier*. Ensure the *Carrier Aggregation Enabled* check box is <u>not</u> checked.

#### Figure 3-2: Carrier Setting for Dual Carrier (DC) / Split Mode

BTS Info	•	Carrier Setting		
System	•	Carrier Mode		
Network	*	Dual Carrier	•	Carrier Aggregation Enabled
BTS Setting				Oncheck
Security Setting				
Management Server		Save	ancel	
Sync Setting				
HaloB Setting				
License Management				
Carrier Setting	>			

- 4. Reboot and verify status (Cell 1): For the settings to take effect, the eNB will reboot; if it does not reboot, manually reboot the eNB. After the eNB completes its boot-up sequence, again check the BTS Info > Basic Info to verify the following settings.
  - Cell Status = Active
  - GPS Sync Status is Synchronized
  - *RF Status(CELL1)* is *ON*
- Configure Quick Settings (Cell 1): Go to BTS Info > Quick Setting, and configure the following fields (Figure 3-3).
  - a. Cloud EPC: Set the *Cloud EPC* field to *ON*.
  - b. EARFCN and PCI: If you are using two 2-port antennas and they are not facing in opposite directions, you must manually change one carrier's EARFCN and PCI settings to different values than those used by the other carrier. This is necessary to avoid interference between the two carriers. Verify or enter the values assigned to EARFCN and PCI for Cell 1 per your network design plan.
  - c. Verify/Configure all other cell and transmission parameters in the *Quick Setting* menu as you normally would for standard mode.

NOTE: Nova-436Q does not support Subframe Assignment (SFA) = 0.

BTS Info +		Quick Setting				
Basic Info		Derive Made	() - 2 Hz			
Quick Setting	>	TDCMode	ON			
System *		-				
		Quick Interface Binding	Legacy Mode			
Network *		waxe -	false	•	·	
BTS Setting *			rentration to the		Note: these fields display	when SAS is enabled.
Lte Settion *		Frequency Selection Logic	Preferred Eandwidth			
cto setting		Order of importance when talketing		_		
Reboot		Enderrad Press	Parlament Francesco			
Logout		2 • * 10dbm *	pcell 3550	. +		
			scell 1550			
		1	Frequency Priority		Cell2 Quick Setting	
			1300.3000 0 8 0 0			(
					Sand (4)	Eandwidth
		Cell1 Quick Setting				10
					EARFCN	Frequency(3/Hz)
		40 *	50 Sanderdon		55540	3580
					Range: \$\$\$40-56640	
		TABLEN	Expansio(MHz)		SubFrame Assignment	Special SubFrame Patterns
		55540	3560		1 (DLUL = 2-2) ·	7
		SubFrame Assignment	Special SubFrame Patterns		PO	Cell ID
		1 (DLUL = 2:2)	7	*	56	135787605
					Rangal 0-501	
		FCI	Cell ID		P.1.01	TAC
		55	135787804		314030	1
					Ranger, 5-4 Digit	
		PLMN	TAC		DE Costure	Proves Mardia
		114000	A second second		OFF	2 * × 25dbm *
					1	
		RF Status	Power Modify			

#### Figure 3-3: Quick Settings

#### 6. Configure Network interfaces:

a. WAN: Go to Network > WAN/LAN (Figure 3-4).

To allow management access over WAN, select ON; otherwise, select OFF.

The *Connect Type* (either copper or fiber) is configured only for Cell 1; Cell 2 will accept the same setting.

Cell 1 and Cell 2 use the same WAN IP, and they can either be set to acquire DHCP IP or be given a static IP.

b. LAN: For the LAN address, enter <u>192.168.150.1</u>.

#### Figure 3-4: WAN/LAN

BTS Info	-	WAN					
System	-	Allow Managen	nent Access Over WAN	Connect Type			
Network	-	ON	-	Copper	•		
WAN/LAN	>	MTU 🗆		DNS Address 1			
IPSec/MME Pool		1500 Range: 700-160	10				
LGW		DNS Address 2					
Static Routing			20				
BTS Setting	*	Internet / W	AN				
Lte Setting	- <b>-</b>						
Reboot		Index 1	Enabled	Connect Via DHCP	Current IP 192.168.130.126	VLAN	0
Logout		2 3 4	OFF OFF	:	:	:	000
		Local Netwo	rk / LAN				
		IP Address 192.168.150	1	Subnet Ma 255.255.25	usk 55.0		
		Save	Cancel				

 Configure IPSec/MME Pool: In step 5a above, when you enabled *Cloud EPC* it automatically established two IPSec tunnels and enabled the MME Pool. Go to Network > IPSec/MME Pool to verify or edit the setup the same as you would when operating the eNB in standard mode (Figure 3-5).

NOTE: This menu is not included in the GUI of an eNB operating in HaloB mode.

		IPSec Set	ting			
System	*	IPSec Stat	us			
Network	-	ON		*		
WAN/LAN			_			
IPSec/MME Pool	>	Save	C	ancel		
LGW						
Static Routing		IPSec Tur	nnel List			
BTS Setting	-					
LTE Setting	-	Index 1	Enabled	Gateway baicells-west	epc-03.cloudapp.net	0
Reboot		2	ON	baicells-east	epc04.eastus.cloudapp.azure.com	0
Logout						
		MME Poo	ы			
		MME Pool			Quick Interface Binding	
		ON			WAN	*
					MME-2 IP	
		MME-1 IP				
		10 3 0 9 J		+	10 5 0 9	+
		10.3.0.9	terface Binding	+	10.5.0.9	+

Under *IPSec Tunnel List* use the *Settings* icon to open a new window called *Tunnel Configure*, where you can change some of the tunnel information (Figure 3-6). This window has two tabs, *Basic Setting* and *Advance Setting*. Only the basic settings should be edited if needed.



**Caution**: It is highly recommended that you use the default values for the *Advance Setting* fields.

Make sure under the *MME Pool* part of the window that *MME Pool* is *ON*, and enter the MME-1 and MME-2 IP addresses if not already auto-configured. When using the Baicells CloudCore, once Cloud EPC is enabled, the MME IP addresses will be 10.3.0.9 and 10.5.0.9. You can also enable interface binding between the MMEs and the IPSec tunnels.

#### Figure 3-6: IPSec Tunnel List - Basic Setting

dex	Enabled	Gateway		
	ON	baicells-west	tepc-03.cloudapp.net	
	ON	baicells-east	epc04.eastus.cloudapp.azure.com	1
Tur	nel Configure			
Bas	ic Setting Adv	vance Setting		
Ena	bled		leftAuth	
0	N	-	psk	-
righ p	ntAuth sk	•	Gateway baicells-eastepc04.eastus.cloud	app.azı
			Range:1-64 Digit string	
Rig	ht Subnet		leftId	
1	0.5.0.0/24			
Ran	ige:0-64 Digit string	3	Range:0-64 Digit string	
righ	ntld		leftCert	
b	aicells-eastepc04.ea	stus.cloudapp.azu		
Ran	ge:0-64 Digit string	1	Range:0-64 Digit string	
sec	retKey		leftSourcelp	
			%config	
Ran	ge:0-64 Digit string	1	Range:0-64 Digit string	
left	Subnet		fragmentation	
			-	_

8. **Configure LGW**: The Local Gateway (LGW) is a Baicells feature that enables operators to access equipment remotely. The eNB splits the data plane and control plane, so there are two IP addresses per UE. The data plane carries user traffic and is sent out the local gateway.

Go to Network > LGW to enable the feature (Figure 3-7). The options for *LGW Mode* are NAT, router, or bridge (most operators use bridge mode). Enter the *LGW IP Pool* address and network information. The IP binding range is 10.10.0.1 to 10.10.0.254. Alternatively, you can enable *Static Address* and enter a static IP address.



#### Figure 3-7: LGW

1

Info 👻		LGW Setti	ng				
em 🔻		LGW			LGW Mode		1
work 🔺		ON		*	NAT	*	
N/LAN			<b>N</b> 1 - 11 -				
ec/MME Pool		WAN WAN	ace Binding		10.10.0.1		
W	>						
tic Routing		LGW IP Poo	ol Netmask				
Catting 7		255.255.2 IP Binding I	55.0 Langer	•			
petting			10.10.0.254				
Setting *		Save	Cance	4			
ot							
BTS Info		*	LGW Settin	ng			
BTS Info System		*	LGW Settin	19		LGW Mode Router	
BTS Info System Network		*	LGW Settin LGW ON	ng		LGW Mode Router	
BTS Info System Network WAN/LAN		*	LGW Settin LGW ON LGW Interfa	29 ce Binding	•	LGW Mode Router LGW IP Pool	
BTS Info System Network WAN/LAN IPSec/MME P	ool	*	LGW Settin LGW ON LGW Interfa	ng ce Binding	•	LGW Mode Router LGW IP Pool 10.10.0.1	
BTS Info System Network WAN/LAN IPSec/MME P LGW	0001	*	LGW Settin LGW ON LGW Interfa WAN	rg ce Binding	•	LGW Mode Router LGW IP Pool 10.10.0.1 Static Address	
BTS Info System Network WAN/LAN IPSec/MME P LGW Static Routing	ool	× × 	LGW Settin LGW ON LGW Interfa WAN LGW IP Poo 255-255-2	ce Binding	•	LGW Mode Router LGW IP Pool 10.10.0.1 Static Address Off	
BTS Info System Network WAN/LAN IPSec/IMME P LGW Static Routing BTS Setting	col	× × ×	LGW Settin LGW ON LGW Interfa WAN LGW IP Poo 255-255-2 IP Binding I	ng ce Binding I Netmask 55.0 Sngee Di 100.254	•	LGW Mode Router LGW IP Pool 10.10.0.1 Static Address OfF	
BTS Info System Network WAN/LAN IPSec/MME P LGW Static Routing BTS Setting LTE Setting	lool	* * * *	LGW Settin LGW ON LGW Interfa WAN LGW IP Poo 255-255-2 IP Binding I 10.10.01 - 1	rg ce Binding I Netmask 55.0 tanget 0.100.254	•	LGW Mode Router LGW IP Pool 10.10.0.1 Static Address OFF	
BTS Info System Network WAN/LAN IPSec/MME P LGW Static Routing BTS Setting LTE Setting Reboot	ool	• • • • •	LGW Settin LGW ON LGW Interfa WAN LGW IP Poo 255-255-2 IP Binding J 10.10.0.1	ng ce Binding I Netmask 55.0 Langer Cal	• •	LGW Mode Router LGW IP Pool 10.10.0.1 Static Address OFF	

BTS Info			LGW Setting			
System	•		LGW		LGW Mode	
Network			ON	*	Bridge	*
WAN/LAN			LGW Interface Bioding			
IPSec/MME Pool			WAN	*		
LGW		>				
Static Routing						
BTS Setting	*		Save	Cancel		
LTE Setting	•					
Reboot						
Logout						

9. Check/Configure Management Server: Go to BTS Setting > Management Server, and enter or verify the server address is <u>baiomc.cloudapp.net:48080/smallcell/AcsService</u>. Confirm or add your unique operator CloudKey for the cell to associate to your cloud account (Figure 3-8). Each cell will appear as a separate eNB in the OMC.



#### Figure 3-8: Management Server

BTS Info 🔻	Management Server CloudCore OMC:
System 🔻	SSI Management Server
Network <b>v</b>	OFF http:// baiomc.cloudapp.net:48080/:
BTS Setting	CloudKey tr069 Binding
Security Setting	123456 WAN 🔻
Management Server >	Range: 0-6 Digit a-z or A-Z or 0-9 string
Sync Setting	
HaloB Setting	SNMP
License Management	
Carrier Setting	OFF 👻
Lte Setting 🔹	
Reboot	
Logout	Save Cancel

 Select Sync Setting: Cell 1 and Cell 2 use the same GPS, so there is only one GPS setting to configure. Go to BTS Setting > Sync Setting. For Sync Mode, select either GNSS or FREE\_RUNNING (Figure 3-9).

#### Figure 3-9: Sync Setting

BTS Info	•	Sync		
System	-	Sync Mode	GNSS	•
Network	-	Number of sat	ellites 13	
BTS Setting				GNSS
Security Setting		Save	Cancel	FREE_RUNNIN
Management Server				
Sync Setting		>		

- 11. **Reboot and verify status (Cell 1 and Cell 2)**: For the settings to take effect, reboot the eNB. This action will reboot both cells. After the eNB completes its boot-up sequence, check the BTS Info > Basic Info status settings for both Cell 1 and Cell 2:
  - Cell1 and Cell2 Status are both Active
  - GPS Sync Status is Synchronized
  - *RF Status(CELL1)* and *(CELL2)* are both *ON*

**IMPORTANT**: When operating the Nova-436Q or the Neutrino-430 in DC mode and using two 2-port antennas, the antennas must be facing in opposite directions. Otherwise, you will need to change the EARFCN and PCI settings on Cell 2 so the two carriers do not interfere with each other.

Your Nova-436Q or Neutrino-430 is now set up to run in DC mode.

### 3.2 Nova-246 eNB

For the Nova-246 to operate in Dual Mode, the primary cell (Cell 1) and secondary call (Cell 2) must both be configured. First configure the primary cell, and then click "Access to Cell 2" on the upper right corner of the GUI to enter cell 2 and configure the secondary cell. Some parameters of the secondary cell are limited by the primary cell and the system has set these parameters to non-configurable.

#### Import License and Select Carrier Control Mode

- 1. Log in: Open a Web browser, and enter <u>192.168.150.1</u>. If you have not changed the eNB's initial username and password, use the defaults: *admin/admin*.
- 2. **Import dual carrier (split mode) license**: Go to BTS Setting > License Management and perform the following steps (Figure 3-10).
  - a. Click on Select File.
  - b. Find and highlight the Dual Carrier Function target file.
  - c. Click on Import License.
- 3. **Select Carrier Control Mode**: Go to LTE > Advanced (Figure 3-10). Under *Carrier Control* select *Dual Carrier* and choose the *Save* button at the bottom of the screen.

BTS Info		SSH Setting
System 🔻		
Network 🔻		Coll based info
BTS Setting		Cell barred into
LTE Freq/Cell		Carrier control
TD-S Freq/Cell		
GSM Freq/Cell		Dual Carrier
Mobility Parameter		Single Carrier
Advanced	>	Dual Carrier
Spectrum Analyzer		
UL PRB RSSI Report		LB Settings
Reboot		
Logout		SCTP Port

#### Figure 3-10: Enable Dual Carrier

- 4. **Reboot:** Perform a warm reboot to apply the Dual Carrier setting.
- 5. **Verify Dual Carrier Mode:** After the eNB completes the boot-up sequence, the *Access to Cell 2* button will be visible on the upper right corner of the GUI. On the BTS Info > Basic Info screen, verify the *SN Number* is appended with a *-1*, which indicates this is Cell 1 (Figure 3-11).

#### Figure 3-11: Verify Dual Carrier Mode

	BAIC	Access to Cell 2 English		
BTS Info		Basic Info		
Basic Info	>	Product Type:	0001929	
Quick Setting		Floddet Type.	30301040	
System	*	Hardware Version:	VER.B	
Network	-	Software Version:	BaiBS_RTD_3.7.5	
BTS Setting	*	SN Number:	120200027619APP0001-1	
LTE	*	MAC:		
Reboot		eNodeB Name:		

#### **Configure Cell 1**

- Configure Quick Settings: Go to BTS Info > Quick Setting, and configure the following fields (Figure 3-12).
  - a. Cloud EPC: Set the *Cloud EPC* field to *Enable* if you are using the Baicells CloudCore.
  - b. Frequency and PCI: If you are using two 2-port antennas and they are not facing in opposite directions, you must manually change one carrier's Frequency and PCI settings to different values than those used by the other carrier. This is necessary to avoid interference between the two carriers. Verify or enter the values assigned to Frequency and PCI for Cell 1 and Cell 2 per your network design plan.
  - c. Verify/Configure all other cell and transmission parameters in the *Quick Setting* menu as you normally would for standard mode.

Basic Info		Dupley Mode	Band
Quick Setting	>	TDDMode	41
System	*		
	_	Bandwidth	Frequency
Network	×	20MHz •	40690(2600MHz)
BTS Setting	*	SubFrame Assignment	Special SubFrame Patterns
LTE	*	2 (DL:UL = 3:1)	7
Debast			
Reboot	-	PCI	Cloud EPC
Logout		52	Enable
		Range: 0-503	
		ECI (ECI=eNB_ID*256+Cell_ID)	MME Interface Binding(Non-IPSec)
		67932547	WAN
		Range: 0-268435455	
		S1 Connection Mode	TAC
		All	1
			Range: 0-65535
		RF Status	Power Modify
		Disable 💌	2 💌 × 40dBm 🕶
		PLMN	MME IP
		Primary NotReset	F
		Range: 5-6 Digit	314030
		PLMN Primary Reserved	MME IP PLMN Status
		ID PLMN	10.3.0.9 314030 Not Connected
		314030 Tes NotReserved	10.5.0.9 314030 Not Connected 🔳

#### Figure 3-12: Quick Settings

#### 7. Configure Network interfaces:

a. WAN: Go to Network > WAN/LAN/VLAN (Figure 3-13).

The *Connect Type* (either copper or fiber) is configured only for Cell 1; Cell 2 will accept the same setting.

The *Connect Via* field can be configured differently for Cell 1 and Cell 2 depending on what the connect type is. The pull-down menu options are DHCP, PPPoE, and IPv4 Static IP.

- If the *Connect Type* is copper, the DHCP function can be used for either Cell 1 or Cell 2.

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- If the *Connect Type* is fiber, the DHCP function can be used for either Cell 1 or Cell 2.
- b. LAN: For the LAN address, enter <u>192.168.150.1</u>.

Figure 3-13: WAN/LAN/VLAN

System 🔻		Introducerona	DAIL Francisco	
Network 🔺		WAN	UNS Servers	+
WAN/LAN/VLAN	>			
MME&IPSec Binding				
LGW		Internet / WAN		
Diagnostics		Allow management access over WAN-	Connect Type:	
Static Routing		Enable •	Copper •	Fi
BTS Setting +				C
TE		MTU:	Connect Via:	
		1500 Bannar 1200, 1600	DHCP	DP DP
Reboot				iPv
Logout		Current IP:	Subnet Mask:	
		Gateway:	DNS Servers:	
		Local Network / LAN		
		IP Address:	Subnet Mask:	
		192.168.150.1	255.255.255.0	



8. **Configure IPSec Binding/MME**: In step 6a above, when you enabled *Cloud EPC* it automatically established two IPSec tunnels. Go to Network > MME&IPSec Binding to verify or edit the setup the same as you would when operating the eNB in standard mode (Figure 3-14).

NOTE: This menu is not included in the GUI of an eNB operating in HaloB mode.

System	bis mio		IPSec Setting
Network   IGWAN/LAN/VLAN IPSec 2 [P]: PSec Status: Inable IGW IGW Diagnostics Static Routing BTS Setting V LTE Reboot Loggout IPSec Tunnel List Supports up to too IPSec tunnel data. Tunnel D Tunnel Name Gateway Gateway Gateway Authby Status Insel Supports up to too IPSec tunnel data. Tunnel D Tunnel D Tunnel Name Gateway Gateway Authby Status I Tunnel D Tunnel Name Multi-1 Up Multi-1 Up Multi-2 Dated I Pane Interface Binding Multi-1 Uper Flame Interface Binding	System		IPSec1 IP :
WAN/LAN/VLAN       IPSec Status:         MMEB/PSec Binding       IRE Registration Destination Port:         LGW       Interface         Diagnostics       Interface         Static Routing       Interface         BTS Setting       Interface         Reboot       Interface         Logout       IPSec Tunnel List         Supports up to two IPSec tunnel data.       Tunnel D         Tunnel D       Tunnel To Bacelise-westep:0.6Leaduapp.net       p.         IPSec Einding       IPSec Einding       IPSec Einding         MMI-1 IP       Interface Binding       INMI-2 List         IPSec Einding       INMI-2 List       IPSec Einding         MMI-1 IP       Interface Binding       INMI-2 List         IPSec Einding       Interface Binding       INMI-2 List Interface Binding         MMI-1 Upr Thane Interface Binding       MMI-2 List P.       Interface Binding         MMI-1 Upr Thane Interface Binding       MMI-2 List P.       Interface Binding         MMI-1 Upr Thane Interface Binding       MMI-2 List P.       Interface Binding         MMI-1 Upr Thane Interface Binding       MMI-2 List P.       Interface Binding	Network	-	IPSec2 IP :
MMEB/PSec Binding       Indule         LGW       Interface         Diagnostics       Interface         Static Routing       Interface         BTS Setting       Interface         Reboot       IPSec Tunnel List         Supports up to two IPSec tunnel data.       Tunnel D         Tunnel D       Tunnel Name         Gateway       Authby status         0 Junnel Name       Gateway         Authby status       Image: Control Plane         I Tunnel D       Dunel Name         I Tunnel D       Bacels-eastep04.eastus.cloudapp.net         IPSec Einding       Image: Control Plane interface Binding         MMI-1 IP       Interface Binding         MMI-1 Control Plane interface Binding       MMI-2 Uer Plane interface Binding         MMI-1 Uer Plane interface Binding       MMI-2 Uer Plane interface Binding         MMI-1 Uer Plane interface Binding       MMI-2 Uer Plane interface Binding	WAN/LAN/VLAN		IPSec Status:
LGW       HE Negotiation Destination Port:         Diagnostics       4500         Static Routing       •         BTS Setting       •         LTE       •         Reboot       •         Logout       IPSec Tunnel List         Supports up to two IPSec tunnel data.       •         Tunnel D       Tunnel Name         Gateway       Authby status         0       Tunnel D         1       Tunnel D         IPSec Einding       103.09         MM1-1 IP       103.09         MM1-1 Control Plane Interface Binding       MM2-2 IP         103.09       •         MM1-1 User Plane Interface Binding       MM2-2 Low Plane Interface Binding         MM1-1 User Plane Interface Binding       MM2-2 Low Plane Interface Binding	MME&IPSec Binding	>	Enable
Left interface         Static Routing         BTS Setting         V         Etric Reboot         Logout         IPSec Tunnel List         Supports up to two IPSec tunnel data.         Turnel D       Tunnel Name         Gateway       Authby status         0       Tunnel D         1       Tunnel D         IPSec Einding       INXE-1 IP         MML-1 IP       103.09         MML-1 P       103.09         MML-1 Control Plane interface Binding       MML-2 User Plane interface Binding         MML-1 User Plane interface Binding       MML-2 User Plane interface Binding	LGW		IKE Negotiation Destination Port:
Static Routing       Itel interface         BTS Setting       •         LTE       •         Reboot       IPSec Tunnel List         Supports up to two IPSec tunnel data.       Tunnel To T	Diagnostics		4500
BTS Setting       •         LTE       •         Reboot       •         Logout       IPSec Tunnel List         Supports up to two IPSec tunnel data.       •         Tunnel ID Tunnel Name       Gateway         0       Tunnel 10         10100       Tunnel 10         10100       •	Static Routing		Left interface
LTE       *         Reboot       IPSec Tunnel List         Supports up to two IPSec tunnel data.       Supports up to two IPSec tunnel data.         Tunnel To Tunnel Tunnel Name       Gateway         0       Tunnel To Tunnel Tunnel Name         1       Tunnel Tunnel Name	BTS Setting	+	
Same       Read         Reboot       IPSec Tunnel List         Supports up to two IPSec tunnel data.       Tunnel To Tunnel Name         G       Tunnel To Tunnel Name         Supports up to two IPSec tunnel data.       Tunnel To Tunnel Name         G       Tunnel To Tunnel Name         MMIC-1 IP       NMIC-2 UP         NMIC-1 Control Plane Interface Binding       MMIC-2 UP         MMIC-1 Uper Plane Interface Binding       MMIC-2 UP Plane Interface Binding         MMIC-1 Uper Plane Interface Binding       MMIC-2 UP Plane Interface Binding	LTE	-	
Logout  IPSec Tunnel List  Supports up to two IPSec tunnel data.  Tunnel ID Tunnel Name Gateway Authly status 0 Tunnel I baicefs-westepc-03.cloudapp.net pik Enable 0 II 1 Tunnel2 baicefs-watepc04.eastus.cloudapp.ature.com pik Enable 0 II 1 Tunnel2 baicefs-watepc04.eastus.cloudapp.ature.com pik IPSec Binding  MME-1 IP  MME-1 IP  MME-1 Gater Interface Binding  Tunnel2 Binded  MME-2 User Plane Interface Binding	Paboot		Save Reset
Logout  IPSec Tunnel List  Supports up to two IPSec tunnel data.  Turnel ID Tunnel Name Gateway Authby status 0 Tunnel ID bacels-westep:-02.cloudapp.net pik Enable © 1 1 Turnel2 bacels-eastep:04.eastus.cloudapp.azure.com pik Enable © 1  IPSec Binding  MMI:-1 IP 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • 103.0.9 • • • • 103.0.9 • • • • 103.0.9 • • • • 103.0.9 • • • • 103.0.9 • • • • • • • • • • • • • • • • • • •	KEDOUL		
Supports up to two IPSec tunnel data. Tunnel ID Tunnel Name Gateway Authby status 0 Tunnel1 baicel's vestepc-03.cloudapp.net pik Enable © 1 1 Tunnel2 baicel's -eastepc04.eastus.cloudapp.azure.com pik Enable © 1 IPSec Binding MME-1 IP 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • 103.0.9 • • MME-1 Control Plane Interface Binding Tunnel1 Binded • • MME-2 User Plane Interface Binding MME-1 User Plane Interface Binding	Logout		IPSec Tunnel List
Turnel ID       Turnel Name:       Gateway       Authly status         0       Turnel ID       baicel's vestepc-03.cloudapp.net       pik       Enable       Image: Ima			Summerks up to two IDSars tunnal data
Tablet Normality       Date Interface Binding         I       Turnet12         Date Interface Binding         MME-1 lp         103.0.9         103.0.9         MME-1 lp         103.0.9         MME-1 Control Plane Interface Binding         Tunnet18 Binded         MME-1 User Plane Interface Binding         MME-2 User Plane Interface Binding         MME-2 User Plane Interface Binding			Turnal ID Turnal Name Catavary Authors Status
1       Turnel2       baicelis eastepc04.eastus.cloudapp.azure.com       pix       Enable       Image: Status cloudapp.azure.com       pix       Image: Status cloudapp.azure.com       Image:			0 Tunnel1 baicells-westepc-03.cloudapp.net psk Enable 🔅 📋
IPSec Binding MML-1 IP 10.3.0.9 10.3.0.9 MML-1 Control Plane Interface Binding Tunnel1 Binded MML-1 User Plane Interface Binding MML-2 User Plane Interface Binding			1 Tunnel2 baicells-eastepc04.eastus.cloudapp.azure.com psk Enable 🗘 📋
IPSec Binding         MME-1 IP       MME-2 IP         10.3.0.9       +       10.3.0.9         10.3.0.9       +       10.3.0.9         10.3.0.9       -       +         10.3.0.9       -       +         10.3.0.9       -       +         10.3.0.9       -       +         10.3.0.9       -       +         MME-1 Control Plane Interface Binding       MME-2 Control Plane Interface Binding         MME-1 User Plane Interface Binding       MME-2 User Plane Interface Binding         Immediate State       -       -         Immediate State       -       -			
MME-1 IP 10.0.9 10.3.0.9 10.3.0.9 MME-1 Control Plane Interface Binding MME-1 User Plane Interface Binding MME-1 User Plane Interface Binding MME-2 User Plane Interface Binding MME-2 User Plane Interface Binding MME-2 User Plane Interface Binding			IPSec Binding
10.3.0.9       10.3.0.9         10.3.0.9       10.3.0.9         MML-1 Control Plane Interface Binding         Tunnel1 Binded         MML-1 User Plane Interface Binding         MML-2 User Plane Interface Binding         Immediate Interface Interface Binding			MME-1 IP MME-2 IP
10.3.0.9       10.5.0.9         MML-1 Control Plane Interface Binding       MML-2 Control Plane Interface Binding         Tunnel1 Binded       Tunnel2 Binded         MML-1 User Plane Interface Binding       MML-2 User Plane Interface Binding         Interface Binding       MML-2 User Plane Interface Binding			10.3.0.9
MML-1 Control Plane Interface Binding Tunnel1 Binded MML-2 Control Plane Interface Binding Tunnel2 Binded MML-1 User Plane Interface Binding MML-2 User Plane Interface Binding			10.3.0.9 🔳
MME-1 User Plane Interface Binding MME-2 User Plane Interface Binding			MME-1 Control Plane Interface Binding MME-2 Control Plane Interface Binding
MME-1 User Plane Interface Binding MME-2 User Plane Interface Binding			Turings annus
incer V incer V			MME-1 User Plane Interface Binding MME-2 User Plane Interface Binding
diser libre			ipsec 🔹

#### Figure 3-14: IPSec Binding/MME

Under *IPSec Tunnel List,* use the *Settings* icon to open a new window called *Tunnel Setting,* where you can change some of the tunnel information (Figure 3-15). This window has two tabs, *Basic Setting* and *Advance Setting.* Only the basic settings should be edited if needed.



**Caution**: It is highly recommended that you use the default values for the *Advance Setting* fields.

Under *IPSec Binding*, ensure you enter the MME-1 and MME-2 IP addresses if not already autoconfigured. When using the Baicells CloudCore, once Cloud EPC is enabled the MME IP addresses will be 10.3.0.9 and 10.5.0.9. You can also enable interface binding between the MMEs and the IPSec tunnels.



#### Figure 3-15: IPSec Tunnel List - Basic Setting

poorts u							
pports o	up to two IPSec tur	inel data.					
unnel ID	Tunnel Name	Gateway			Authby	status	
	Tunnel1	baicells-westepc-0	3.cloud	app.net	psk	Enable	0
	Tunnel2	baicells-eastepc04.	eastus.	cloudapp.azure.com	psk	Enable	٢
L	Tunnel Setting						
1	Basic Setting	Advance Setting					
	-						
	Enabled		1	Tunnel Name :			
	Enable	•		Tunnel1			
	modified			Range: 1-10 Characte Z string	ers 0-9 or	a-z or A-	
	Gateway:						
	baicells-westep	c-03.cloudapp.net					
	Right Subpet						
	light subject.		Mask				e
			maak				
	10.3.0.0/24 🔳						
	10.3.0.0/24 🛄 Left Identifier :			Right Identifier :			
	10.3.0.0/24 🔳 Left Identifier :		]	Right Identifier :			
	10.3.0.0/24 The second	cters string	]	Right Identifier : Range: 0-48 Character	ers string		
	10.3.0.0/24	acters string	]	Right Identifier : Range: 0-48 Characte Pre Shared Key:	ers string		

9. **Configure LGW**: The Local Gateway (LGW) enables operators to access equipment remotely. The eNB splits the data plane and control plane, so there are two IP addresses per UE. The data plane carries user traffic and is sent out the local gateway.

Go to Network > LGW to enable the feature (Figure 3-16). The options for *LGW Mode* are NAT, router, or bridge (most operators use bridge mode). Enter the *LGW IP Pool* address and network information. The IP binding range is 10.10.0.1 to 10.10.0.254. Alternatively, you can enable *Static Address* and enter a static IP address.



#### Figure 3-16: LGW

System		LGW		LGW Mode	
Network		Enable	•	NAT	-
WAN/LAN/VLAN					
		LGW Interface Binding		LGW IP Pool	
MME&IPSec Binding		WAN	-	10.10.0.1	
LGW	>				
Diagnostics		LGW IP Pool Netmask			
		255.255.255.0	•		
Static Routing		10.10.0.1 - 10.10.0.254			
BTS Setting	* *	Save	Reset		
BTS Setting LTE SW Setting	•	Save	Reset		
BTS Setting LTE SW Setting SW	▼ ▼	Save	Reset		LGW Mode
BTS Setting LTE SW Setting SW Enable	LGW Mode Router	Save	LGW Setting LGW Enable	•	LGW Mode Bridge
BTS Setting LTE SW Setting SW Enable SW Interface Binding	LGW Mode Router	Save	Reset LGW Setting LGW Enable	•	LGW Mode Bridge
BTS Setting LTE SW Setting SW Enable • SW Interface Binding WAN •	LGW Mode Router LGW IP Por 10.10.0.1	Save	LGW Setting LGW Enable LGW Interface B WAN	• inding	LGW Mode Bridge
BTS Setting LTE SW Setting SW Enable SW Interface Binding WAN SW IP Pool Netmask	LGW Mode Router LGW IP Por 10.10.0.1	Save	LGW Setting LGW Enable LGW Interface B WAN	• inding	LGW Mode Bridge
BTS Setting LTE SW Setting SW Enable SW Interface Binding WAN SW IP Pool Netmask 255.255.255.0	LGW Mode Router LGW IP Por 10.10.0.1 Static Addi Disable	Save	LGW Setting LGW Enable LGW Interface B WAN	inding	LGW Mode Bridge

 Check/Configure Management Server: Go to BTS Setting > Management Server, and enter or verify the server address is <u>baiomc.cloudapp.net:48080/smallcell/AcsService</u>. Confirm or add your unique operator CloudKey for the cell to associate to your cloud account (Figure 3-17). Each cell will appear as a separate eNB in the OMC.

#### Figure 3-17: Management Server

( k	Clou Daio	idCore OMC: mc.cloudapp.ne	t:48080/smallcell/A
BTS Info 👻		Management Server	
System 🔻		Initial Management Server	Initial Management Server URL
Network *		Disable	http://baical.chinacloudapp.cn:8080/In
BTS Setting 🔺		551.	Management Server
Security Setting		Disable	http:// baiomc.cloudapp.net:48080/1
Management Server	>		
Sync Setting		123456	
HaloB Setting			
License Management			
Ald Setting		Save Reset	
LTE -			
Reboot			
Logout			

11. **Select Sync Setting**: GPS sync is controlled by Cell 1 and therefore configured in the Cell 1 GUI. Cell 2 will use the same sync settings as Cell 1.

Go to BTS Setting > Sync Setting (Figure 3-18) :



- a. Under Forced Sync, set Forced Sync Switch to Enable.
- b. Under GPS Sync, set GPS Sync Switch to Enable.

NOTE: The GPS and Glonass boxes are checked as default settings when GPS Sync Switch is enabled.

c. Click on *Save* to save the sync options.

#### Figure 3-18: Sync Setting

BTS Info	•	Forced Sync		
System	•	Encode and a local data	t Castle	
Network	-	Forced Sync Switch	n Enable	
BTS Setting	•			
Security Setting		GPS Sync		
Management Server		GPS Sync Switch	Enable	
Sunc Satting	~	GPS :		
Sync Setting		Glonass :		
HaloB Setting		BeiDou :		
License Management		Galileo :		
		Qzss :		
Ald Setting	_	GPS Version:	1.04	
LTE	*	Number of satellites:	15	
Reboot		Satellite signal stre	ength:	
Rebool	-	Satellite	Signal	
Logout		number	strength(dB-Hz)	
	_	30	30.000000	
		8	17.000000	
		7	18.000000	
		1	15.000000	
		13	35.000000	
		14	21.000000	
		28	17.000000	
		17	26.000000	
		80	18.000000	
		81	18.000000	
		88	16.000000	
		78	16.000000	
		79	21.000000	
		1588 Sync 1588 Sync Switch Disable	*	
		Save	Reset	

The settings for Cell 1 are now configured and Cell 2 can now be configured.

#### **Configure Cell 2:**

12. Access Cell 2: Click the Access to Cell 2 button. The Cell 2 GUI will render in a separate tab in the web browser.

- 13. Log in: Enter the username and password. Use the default *admin/admin* if you have not changed the password.
- 14. Verify you are in Cell 2: Go to BTS Info > Basic Info to verify the *SN Number* is appended with a -2.
- 15. **Configure Cell 2:** Repeat step 6 through step 10 to configure Cell 2; then, return to step 16 to reboot, which will apply all the settings you configured for Cell 1 and Cell 2.

NOTE: You will not perform Step 11 "Select Sync Setting" again for Cell 2. This setting was configured for Cell 1 and is controlled by Cell 1.

- 16. Perform a warm reboot: Perform a warm reboot to apply all the settings you configured for Cell1 and Cell 2. After the eNB completes its boot-up sequence, the *Access to Cell 2* button will be visible on the upper right corner of the GUI.
- 17. Verify status (Cell 1): Verify the BTS Info > Basic Info status settings for Cell 1 (Figure 3-19):
  - a. The SN Number is appended with -1.
  - b. Cell Status is Active.
  - c. Sync Status is Synchronized.
  - d. RF Status is Enable.

#### Figure 3-19: Verify Cell 1 Settings

Влю	<b>cells</b>	Access to Cell 2 English 👻
BTS Info 🔺	Basic Info	
Basic Info >	Product Type:	sBS81040
System	Hardware Version:	VER.B
Network *	Software Version:	BaiBS_RTD_3.7.5
BTS Setting T	SN Number:	120200027619APP0001-1
LTE	MAC:	
Reboot	eNodeB Name:	
Logout	Status Info	
	Link Speed Negotiated:	1000M
	Halo8 Status:	Disable
	WAN Link Status:	Connected
	Cell Status:	Active
	MME Status:	Not Connected
	OMC Status:	Not Connected
	IPSec Status:	Not Connected
	Sync Status:	Synchronized
	VSWR0:	
	VSWR1:	
	RF Status:	Enable

- 18. Verify status (Cell 2): Verify the BTS Info > Basic Info status settings for Cell 2 (Figure 3-20):
  - a. The SN Number is appended with -2.
  - b. Cell Status is Active.
  - c. Sync Status is Synchronized.
  - d. RF Status is *Enable*.

#### Figure 3-20: Verify Cell 2 Settings

	PVIC		Access to Cell 1 English
BTS Info		Basic Info	
Basic Info Quick Setting	>	Product Type:	s8581040
System	*	Hardware Version:	VER.B
Network	*	Software Version:	BaiBS_RTD_3.7.5
BTS Setting		SN Number:	120200027619APP0001-2
LTE	*	MAC:	
Reboot		eNodeB Name:	
Logout		Status Info	
		Link Speed Negotiated:	1000M
		Halo8 Status:	Disable
		WAN Link Status:	Connected
		Cell Status:	Active
		MME Status:	Not Connected
		OMC Status:	Not Connected
		IPSec Status:	Not Connected
		Sync Status:	Synchronized
		VSWR0:	1
		VSWR1:	

Your Nova-246 is now set up to run in DC mode.