



Baicells EG2030C-M2 User Manual

V100R001C00

About This Document

This document introduces the specifications of Baicells EG2030C-M2 CPE and guides users to install and configure it.

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Disposal of Electronic and Electrical Waste



Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

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1. Product Overview

1.1 Introduction

Baicells is a high-tech company dedicated in wireless broadband access solutions and service operation. With the advent of the Internet+ era, the development of WBB is imminent. Through continuous innovation, Baicells launches the world first mobile broadband system based on the Internet architecture and unlicensed spectrum. Baicells can provide series CPEs, include indoor and outdoor unit on different spectrums.

Baicells EG2030C-M2 is high performance outdoor CPE. The EG2030C-M2 has the superior wireless access performance and comprehensive routing capabilities, which have the abilities to bring the end-users WBB services.

1.2 Features

The EG2030C-M2 is designed according to the simplicity principle, which can evolve in a short period and realize fast customization, delivery and deployment as well. The main features of the EG2030C-M2 is as follows:

- Support TD-LTE network according to the operator's choice.
- LTE comply with 3GPP Release9 CAT4.
- LTE TDD band42&band43.
- Support the 100Mbps Ethernet interface.
- Support 802.11bgn.
- Intuitionist and convenient Web-based management.
- Support TR069 and OMA-DM network management protocol.
- Support cell lock, SIM lock, and Pin lock.
- User-friendly design of LED indicator.

1.3 Appearance

The EG2030C-M2 appearance is shown in Figure 1-1.

Figure 1-1 EG2030C-M2 Appearance



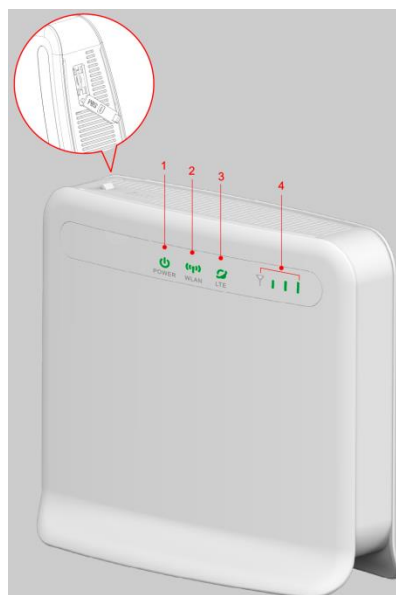
The EG2030C-M2 interface and button description is given in Table 1-1.

Table 1-1 Description of EG2030C-M2 Interface and Button

Interface & Button	Description
Power Switch	Power On/Off
SIM	Support 1.8V/3.0V USIM 2FF
RESET	Long press over 10 seconds to restore the factory settings
LAN	1 RJ45, LAN, 10/100/1000 auto-sensing, auto-MDX

The LED indicators are shown in Figure 1-2.

Figure 1-2 LED Indicators of EG2030C-M2



The description of LED indicators are given in Table 1-2.

Table 1-2 LED Indicator Description

Identity	Description	Color	Status	Description
Power	Network state Indicator	Blue	OFF	No Power Supply.
			Steady On	Power on.
WLAN	SIM card status indicator	Yellow	Steady On	WLAN is on.
			Blanking	WLAN is off.
LTE	Power Indicator	Yellow	OFF	LTE disconnected.
			Steady On	LTE connected.
LTE Signal	3 LTEs, Indicate connection state and signal strength	Green	All OFF	Signal is too weak to attach.
			Steady On	According to signal strength in turn light up
			Blanking	Scanning the LTE network
				The CPE is authenticating.
	CPE is getting IP address from the LTE network.			

2. Technical Specifications

2.1 Basic Specification

Table 2-1 Basic Specification

Item	Description
LTE Standard	3GPP Release 9
Ethernet LAN Port	One RJ-45 port 10/100 auto-sensing, auto-MDX
LED Indicators	Power/LET Signal/WLAN
USIM	Support 1.8V/3V 2FF
Restore Button	Tact Button Long press over 10s to restore the factory settings
Power Supply	Input: Universal range 100V~240V AC Output: 5VDC, 2A
Dimension	About
Weight	About 400g
Color	Pantone white C

2.2 RF Specification

Table 2-2 RF Specification

Item	Description
LTE Mode	TDD LTE
Channel Bandwidth	5 MHz /10 MHz /15 MHz /20 MHz
MAX Output Power	23 ± 2 dBm
LTE Standard	3GPP R9
Frequency	Band42: 3400 MHz ~ 3600 MHz Band43: 3600 MHz ~ 3800 MHz
LTE Antenna Gain	6 dBi
Wifi Standard	802.11b/g/n
Frequency	2400MHz~2483.5 MHz
Wifi Antenna Gain	5 dBi

2.3 SW Specification

Table 2-3 SW Specification

Item	Description
Language Settings	English
Network Mode	Bridge / NAT
SIM	<ul style="list-style-type: none"> PIN Management SIM Lock
Network Connection setup	<ul style="list-style-type: none"> Create, delete, and edit APNs Set up dial-up connection automatically Set up dial-up connection manual
LTE Scan Mode	<ul style="list-style-type: none"> Full Band Cell Lock Band / Frequency Preferred
VPN	<ul style="list-style-type: none"> Support VPN pass through Support L2TP tunnel mode Support L2 VPN
NAT	<ul style="list-style-type: none"> Port forwarding Port trigger DMZ UPnP
Statistics	<ul style="list-style-type: none"> LAN Link Status Transmit / Receive traffic Running Time

2.4 Device Management

Table 2-4 Device Management

Item	Description
Maintenance	<ul style="list-style-type: none"> Date & Time setting Reset Restore factory settings Restore/Backup Configuration File Local upgrade FOTA upgrade
TR069	Can enable or disable TR069 Management
Port mirror	Can enable or disable the port mirror function
Syslog	Support the syslog function can send the log to the PC via LAN
Diagnostics	Support the Ping and trace route

2.5 Environment Specification

Table 2-5 Environment Specification

Item	Description
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-20°C ~ 70°C
Operating Humidity	5% ~ 95%

2.6 Regulatory Compliance

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator & your body.

ISED Compliance

This device complies with Innovation, Science, and Economic Development

Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d' Innovation, Science et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 30cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter, End-Users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

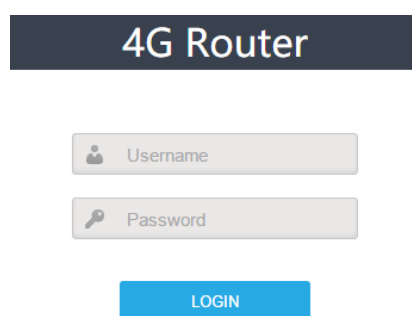
3. Configuration Guide

3.1 Log in

The EG2030C-M2 manages, configures, and maintains the device by web management page. The steps to log in are as follows:

1. In the address column of browser, type in **http://192.168.150.1**, then press “**Enter**”, login in page is shown in Figure 3-1.

Figure 3-1 Login Page



2. Enter the user name and password, click "**LOGIN**". After password authentication, you can log on to the web management page.

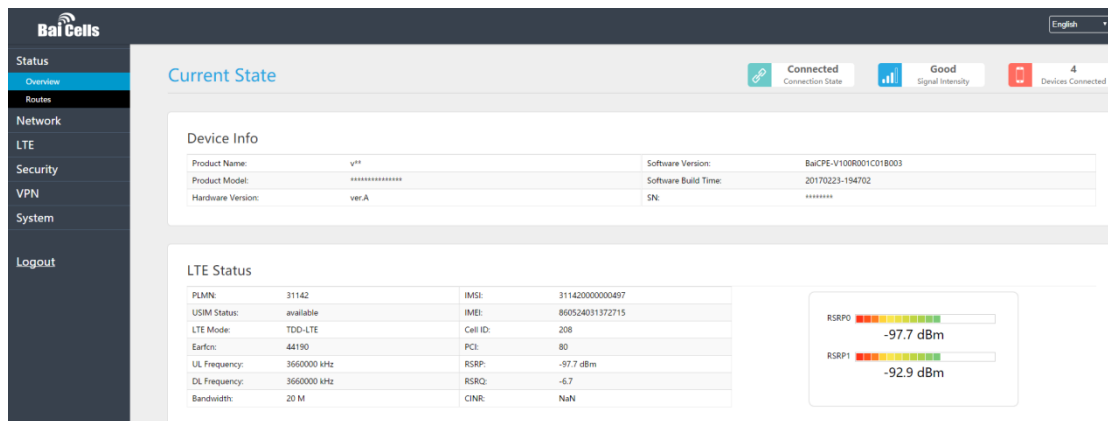
The default user name and password is admin.

For security, it is recommended that you open the firewall, and keep your login password, WLAN FTP passwords and password well.

3.2 View Status

In the overview area, you can view the device information and LTE status, such as Product name, Software version, PLMN, IMSI, RSRP, RSRQ, CINR, SINR, Tx Power, Cell ID, PCI, and so on, as shown in Figure 3-2.

Figure 3-2 View Status



3.3 Basic Configuration

3.3.1 LTE Setting

To set the LTE Network, perform the following steps:

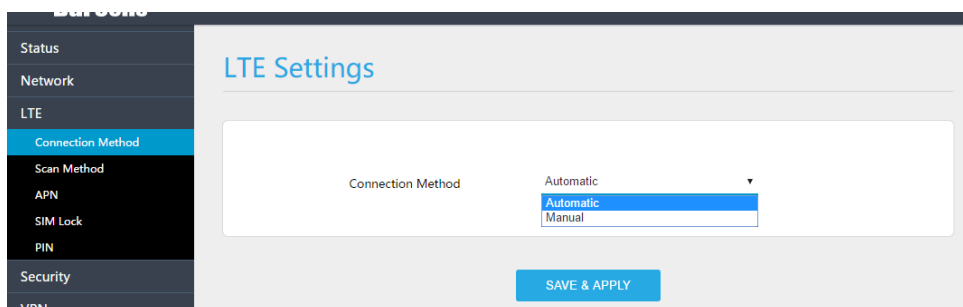
1. Choose **LTE**.
2. In the LTE Setting area, configure the LTE network.

3.3.2 Set Connection Method

To set the LTE network connection method, perform the following steps:

1. Choose "**LTE>connection Method**", enter the setting connection method page, as shown in Figure 3-3.

Figure 3-3 Set Connection Method



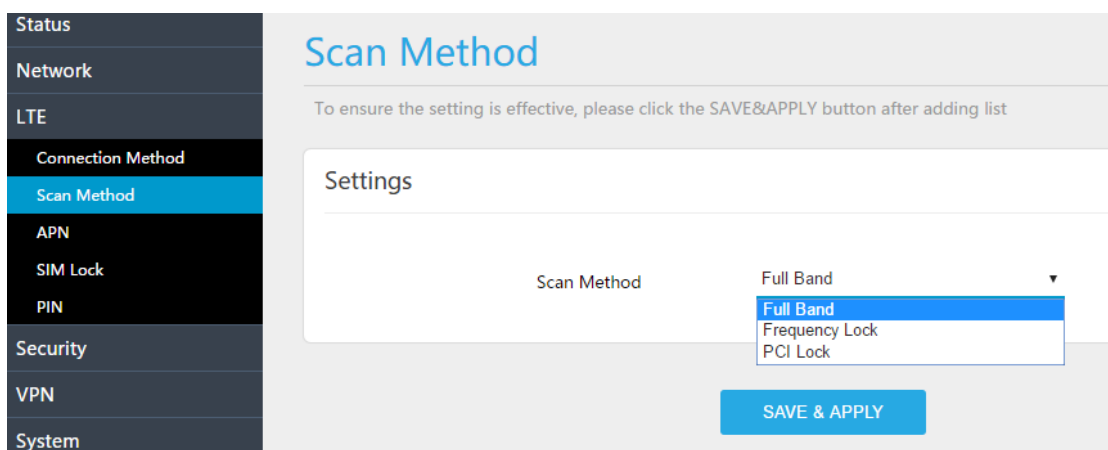
2. In the connection Method area, set the connection method
3. There are two methods to connect the LTE network, it is needed to choose a method between Auto and Manual, if you want to auto connect to the LET network you should choose the Auto, otherwise you should choose Manual.
4. Click **“SAVE & APPLY”**.

3.3.3 Set Scan Mode

To set the LTE network scan mode, perform the following steps:

1. Choose **“LTE>Scan Method”**, enter the setting scan method page, as shown in Figure 3-4.

Figure 3-4 Set Scan Mode



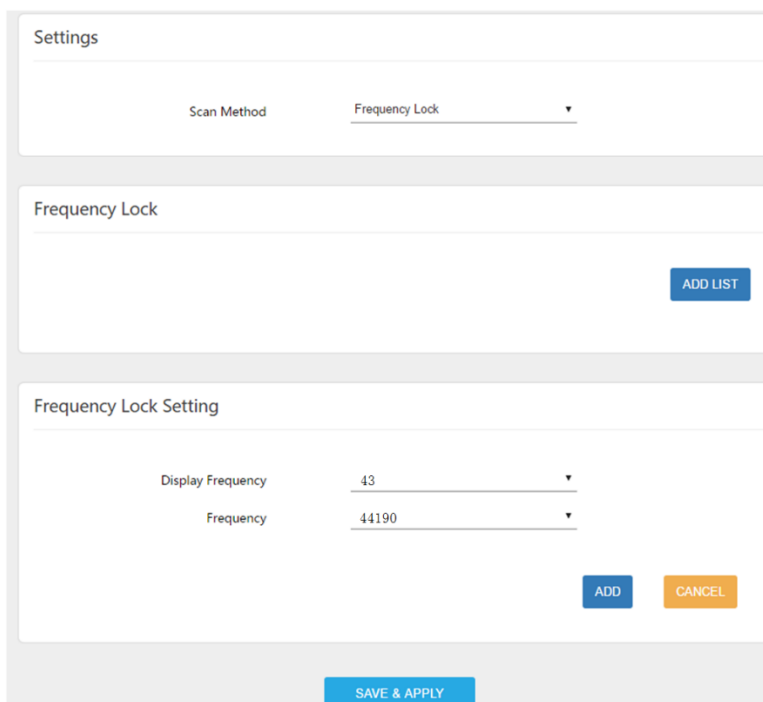
2. In the Scan Method area, set the scan mode
3. You can choose full Band, **Frequency Lock**, or **PCI Lock**.

3.3.4 Lock Frequency (Earfcn)

To clock the frequency, perform the following steps:

1. Choose **“LTE>Scan Method”**.
2. In the LTE Scan Method area, click Frequency Lock to lock the frequency.
3. Click **ADD LIST**, choose a band and frequency, and then click **Add** to add the band and frequency to the list, as shown in Figure 3-5.

Figure 3-5 Lock Frequency



4. Click **“SAVE & APPLY”**.

3.3.5 Lock PCI

To lock the PCI, perform the following steps:

1. Choose **“LTE>Scan Method”**.
2. In the LTE Scan Method area, click PCI Lock to lock the PCI.
3. Click ADD LIST you can choose a band, frequency and PCI, then click Add to add the frequency and PCI to the list, as shown in Figure 3-6.

Figure 3-6 Lock Frequency

Scan Method

To ensure the setting is effective, please click the SAVE&APPLY button after adding list

Settings

Scan Method PCI Lock ▼

PCI Lock

ADD LIST

PCI Lock Setting

Display Frequency 43 ▼

Frequency 44190 ▼

PCI _____

ADD CANCEL

SAVE & APPLY

4. Click **“SAVE & APPLY”**.

Appendix A **FAQs**

The POWER indicator does not turn on.

- Make sure that the power cable is connected properly and the CPE is powered on.
- Make sure that the power adapter is compatible with the CPE.

Fails to Login to the web management page.

- Make sure that the CPE is started.
- Verify that the CPE is correctly connected to the computer through a network cable. If the problem persists, contact authorized local service suppliers.

The CPE fails to search for the wireless network.

- Check that the power adapter is connected properly.
- Check that the CPE is placed in an open area that is far away from obstructions, such as concrete or wooden walls.
- Check that the CPE is placed far away from household electrical appliances that generate strong electromagnetic field, such as microwave ovens, refrigerators, and satellite dishes.

If the problem persists, contact authorized local service suppliers.

The power adapter of the CPE is overheated.

- The CPE will be overheated after being used for a long time. Therefore, power off the CPE when you are not using it.
- Check that the CPE is properly ventilated and shielded from direct sunlight.




The parameters are restored to default values.

- If the CPE powers off unexpectedly while being configured, the parameters may be restored to the default settings.

After configuring the parameters, download the configuration file to quickly restore the CPE to the desired settings.

Appendix B Shipping List

The product outward appearance, the color take the material object as, the picture only supply reference.

Index	Content	Picture	Amount
1	EG2030C-M2 CPE with Simple Mounting bracket		1
2	Power adapter		1
3	User Manual		1