

# HSPA+ Mobile Router User Manual

V1.3

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## 1. Introduction

HSPA+ Mobile Router is a highly integrated wireless solution for 3G and Wi-Fi. It provides HSPA+ downlink data rate up to 21 Mbps, uplink data rate up to 5.76 Mbps and 3G mobile broadband wherever you are. With HSPA+ Mobile Router, you don't have to worry about the availability of Internet access as long as 3G network is available. It provides connection with 1 PC USB host (via Ethernet) and at the same time connect up to 6 Wi-Fi enabled devices such as smart phones, laptops, or tablet PCs. HSPA+ Mobile Router is the best choice for users to enjoy the Internet for data transmission and media streaming while on-the-go.

### 1.1 Features

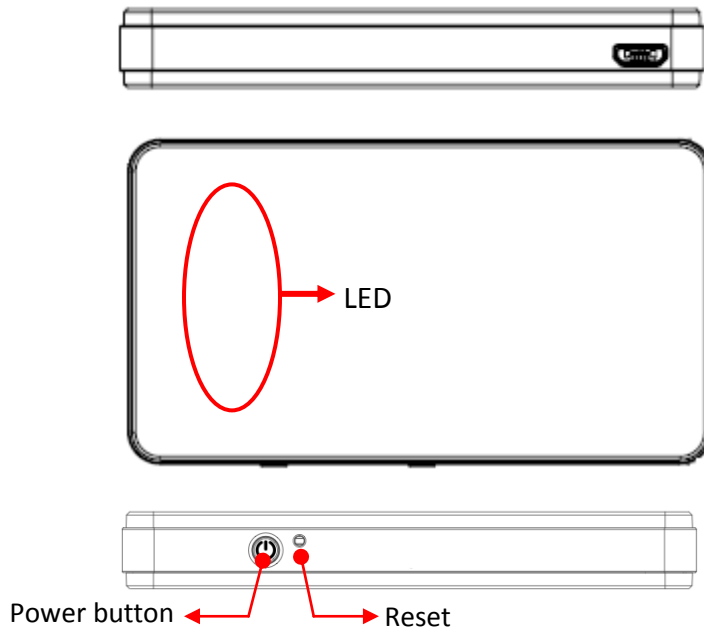
- HSPA+/HSDPA/HSUPA/UMTS packet data service
- EDGE/GPRS packet data service
- HSPA/GSM Short Message Service (SMS)
- HSPA+ Downlink data rate up to 21 Mbps
- HSPA+ Uplink data rate up to 5.76 Mbps
- UMTS PS domain data rate up to 384 kbps
- EDGE packet data rate up to 236.8 kbps
- GPRS packet data rate up to 115.2 kbps
- Wi-Fi 802.11 b/g/n
- Share internet connection with up to 6 Wi-Fi enabled devices and 1 PC USB host
- Micro USB interface for battery charging and PC connection
- Multi-color LED indicating status
- Support Microsoft Windows XP SP3/ Vista SP2/ Windows 7 SP1
- Support Linux
- Support Mac OS X 10.6

## 1.2 General Specifications







Model Name	HSPA+ Mobile Router
Technical Standard	<ul style="list-style-type: none"> <li>● 3GPP Release 7 compliant</li> <li>● GSM/GPRS/EDGE 3GPP Release 99 compliant</li> </ul>
External Interfaces	<ul style="list-style-type: none"> <li>● Micro USB interface: supporting USB 2.0 high speed</li> <li>● Standard 6-pin SIM card interface</li> </ul>
Operating Conditions	
Voltage	USB 5V
Temperature	Operating : -10°C to +45°C Storage : -20°C to +70°C
Dimension	90mm x 50mm x 12mm
Form Factor	Bar type mobile router
Battery capacity	3.7V 1500 mAh
Electrical Specifications	
Operating Frequency	<ul style="list-style-type: none"> <li>● WCDMA/HSPA+ 2100/1900/1700/850 MHz (Band 1/2/4/5)</li> <li>● WCDMA/HSPA+ 2100/1900/850/900 MHz (Band 1/2/5/8)</li> <li>● EDGE/GPRS/GSM 1900/1800/900/850 MHz</li> <li>● IEEE 802.11 b/g/n 1x1 Wi-Fi : 2.4GHz ISM radio band</li> </ul>
Maximum Output Power	<ul style="list-style-type: none"> <li>● HSPA+/UMTS: 23 dBm (Power Class 3)</li> <li>● GSM/GPRS 850/900 MHz: 33 dBm (power Class 4)</li> <li>● GSM/GPRS 1800/1900 MHz: 30 dBm (Power Class 1)</li> <li>● EDGE 850/900 MHz: 33 dBm (Power Class E2 )</li> <li>● EDGE 1800/1900 MHz: 30 dBm (Power Class E2)</li> <li>● 802.11 b/g/n 2.4GHz: 9 dBm</li> </ul>
Antenna	Embedded antenna
Receive Sensitivity	<ul style="list-style-type: none"> <li>● HSPA+/UMTS: compliant with 3GPP R7</li> <li>● EDGE/GPRS/GSM 850/900/1800/1900 MHz: compliant with 3GPP R99</li> <li>● 802.11 b/g/n 2.4GHz: compliant with IEEE 802.11b/g/n standard</li> </ul>





## 1.3 Product Overview

### 1.3.1 Appearance



#### LED indicator:

Indicator	Color	Solid	Blinking (Fast)	Blinking (Slow)
SMS 	Green	New incoming message		Message full
Signal 	Purple	HSPA+ network	transmitting	
Signal 	Blue	WCDMA/HSDPA/HSUPA network	transmitting	
Signal 	Green	GSM/GPRS network	transmitting	
Signal 	Red	1. SIM error 2. No Service		
Signal 	Amber	Signal of usable roaming operator found but not connected	transmitting	

Indicator	Color	Solid	Blinking (Fast)	Blinking (Slow)
Battery 	Blue	Fully charged		100% to 50% capacity, without charge
Battery 	Green	Battery is 50% to 99% charged		50% to 10% capacity, without charge
Battery 	Red	Battery is 0% to 50% charged	Less than 3% capacity, without charge	Less than 10% capacity, without charge
Wi-Fi 	Green	Wi-Fi active	transmitting	

**Solid:** LED stays on

**Blinking (Fast):** LED will blink every 0.1 second when transmitting data on “Always on” mode

**Blinking (Slow):** LED will turn on 0.5 second and turn off 3 seconds when transmitting data on “Dial on demand” mode

**SIM card slot:**

Please open the bottom cover and insert your SIM card into this slot.

**1.3.2 HSPA+ Mobile Router**

Please refer to the illustration below. This device provides 3G network connections for one device via Ethernet and at the same time can connect up to 6 Wi-Fi-enabled devices to share the 3G mobile broadband service.



### **1.3.3 FCC Regulations:**

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.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

### **1.3.4 RF Exposure Information (SAR)**

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. \*Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.



The highest SAR value for the device as reported to the FCC, as described in User's guide is 1.39 W/kg.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of [www.fcc.gov/oet/ea/fccid](http://www.fcc.gov/oet/ea/fccid) after searching on FCC ID: TLZ-R20.




This device is compliance with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

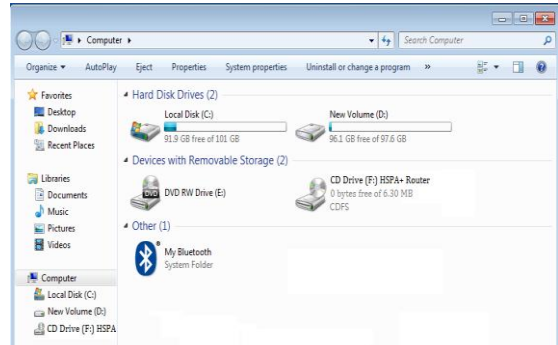
## 2. HSPA+ Mobile Router Connection

With HSPA+ MOBILE ROUTER, no installation of driver is required. All you need to do is plug-and-play and 6 Wifi-enabled devices can be connected simultaneously.

### 2.1 Install HSPA+ Mobile Router for Ethernet connection



After connecting HSPA+ MOBILE ROUTER by USB, please refer installing steps below.

1. Open battery cover and take out battery to insert SIM card.
2. Put in the battery.
3. Push  to turn on the device.
4. Double click "Computer"
5. Click "CD Drive (HSPA+ Router)"
6. Open "Setup" folder
7. Double Click "Setup.exe" (  setup ) to install driver.
8. Re-plug-in the device to finish installing.
9. After installing, the icon (  ) which is quick link to connection manager will appear in the desktop.
10. You can also enter "http://192.168.1.1." on browser to link connection manager. (refer to "3. Connection Manager" as below)



### 2.2 HSPA+ Mobile Router for Wi-Fi connection

You do not need to install anything to connect HSPA+ MOBILE ROUTER by Wi-Fi.

1. Open battery cover and take out battery to insert SIM card.
2. Put in the battery.
3. Push  to turn on the device.
4. Click on the **AirPort** icon (  ) displayed on your device and connect to SSID "HSPA+ Mobile Router".
5. You can now connect to your 3G network

### 3. Connection Manager

HSPA+ MOBILE ROUTER provides a connection manager for users to manage mobile broadband connections. Through the connection manager you can manage and adjust settings for your device. Please follow the steps below to enter the webpage of you connection manager.

1. Firstly, turn the power on and connect to HSPA+ MOBILE ROUTER.
2. Open **browser** and enter **http://192.168.1.1**.



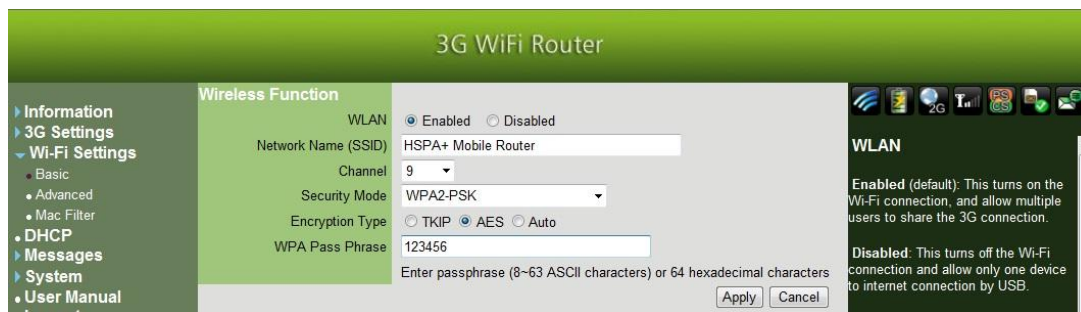
3. The default user name and password are both **admin**. Enter **“admin”** in **Name** and **Password** field.



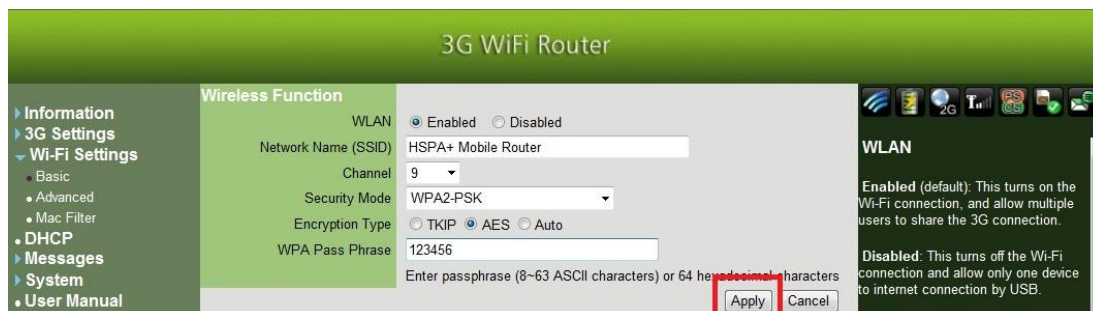
4. Click **“Log In”**.

#### 3.1 Default Page for First Time

When you log into the webpage for the first time, the default page will look like the below. The warning message is to remind you to setup the **“SSID”** (the device name which shows up on the connection network) and **“Encryption Type”**. For more details please refer to **“3.4.1.”**



If you do not want to setup right away, the warning message will not show up again after the **“Apply”** button is clicked. But you can access the setting again through **“Wi-Fi Settings”** → **“Basic”** (3.4.1).



## 3.2 Information

### 3.2.1. Status

After logging onto the connection manager webpage, the status page will show. This is what the default page will look like for your new HSPA+ MOBILE ROUTER device.

**3G WiFi Router**

**Information**

- **Status**
- Usages
- Wi-Fi User List
- History
- ▶ 3G Settings
- ▶ Wi-Fi Settings
- DHCP
- ▶ Messages
- ▶ System
- User Manual
- Logout

**System**

Firmware Version v1.0.4.1

Hardware Version

IMEI 356000040056624

**Internet (WAN)**

Operator TWN

Connection Status Connected

Network Type HSDPA

Current Profile TWN

IP 101.13.27.84

DNS 61.31.233.1 168.95.1.1

**Wireless (LAN)**

IP 192.168.1.1

Subnet Mask 255.255.255.0

DHCP Server Enabled

Address Range 192.168.1.100 - 192.168.1.200

MAC Address 00:08:ca:51:c8:93

SSID HSPA+ Mobile Router

Channel 9

Mode 802.11 B/G/N

Encryption None

**Status**

This page shows current status for internet and network connection details.

**Refresh**

Refresh the status page.

**Connect**

Press "Connect" button to connect to the 3G network.

**Disconnect**

Press "Disconnect" button to disconnect the 3G network.

- Refresh: Refresh the status page.
- Connect: Press "Connect" button to connect to the 3G network.
- Disconnect: Press "Disconnect" button to disconnect from the 3G network.

### 3.2.2. Usages

**3G WiFi Router**

**Information**

- Status
- **Usages**
- Wi-Fi User List
- History
- ▶ 3G Settings
- ▶ Wi-Fi Settings
- DHCP
- ▶ Messages
- ▶ System
- User Manual
- Logout

Upload Speed 0 Bytes/sec

Download Speed 9 Bytes/sec

Current Connection Time 10 minutes 29 seconds

Current Upload Data 2.90 KBytes

Current Download Data 1.27 KBytes

Total Connected Time 13 minutes 44 seconds

Total Upload Data 19.40 KBytes

Total Download Data 31.41 KBytes

**Usages**

This page shows the internet traffic statistics.

**Clear History**

Reset total connected time and total upload/download data.

**Refresh**

- Clear History : Reset total connected time and total upload/download data.
- Refresh: Refresh the statistics page.

### 3.2.3. Wi-Fi User List

This displays the MAC address of associated devices connected to the HSPA+ MOBILE ROUTER.



### 3.2.4. History

This displays the connections information of associated devices connected to the HSPA+ MOBILE ROUTER.



## 3.3 3G Settings

### 3.3.1. Profile



- Auto APN: This is enabled by default. APN will be detected automatically when connected to the 3G network.
- Profile Name, Name, Password, and APN: Please enter the information provided by your Internet Service Provider if "Auto APN" is disabled.
- Reconnection Mode

Always on: The mobile network connection is always maintained.

On demand (default): It will connect to your 3G network whenever you access the Internet.

Manual: You have to go to "Status-> Status" in this web setting page and click the "Connect" button manually to bring up the 3G connection.

- Maximum Idle Time: On the "On demand" or "Manual" reconnection mode, the 3G connection will disconnect if you do not use the internet within this setting time.

### 3.3.2. Network Settings



- Select Operator

Automatic (default): This chooses a 3G network automatically.

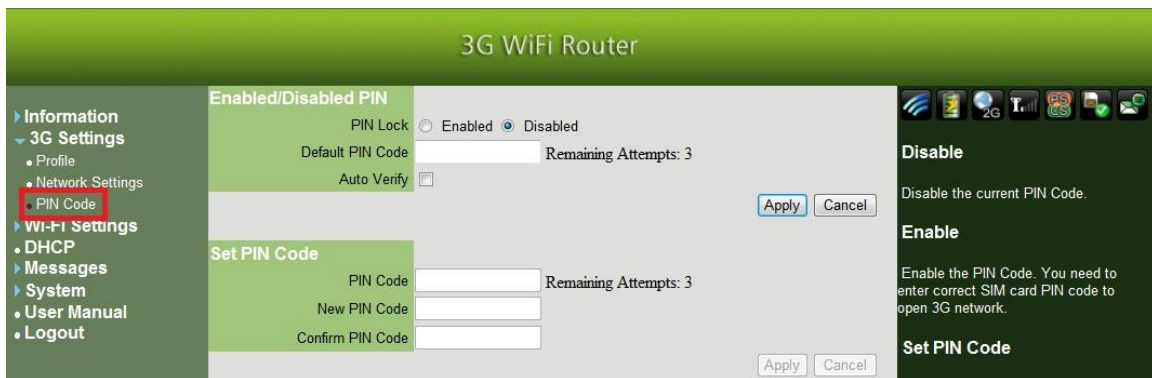
Manual: You need to choose the 3G network manually from the "Operator List" below.

- Search: Click button and search for enabled 3G network
- Data Roaming:

Disabled (default): Disable roaming.

Enabled: Enable roaming

### 3.3.3. PIN Code



- PIN Lock :

Disable (default): Disable the current PIN Code.

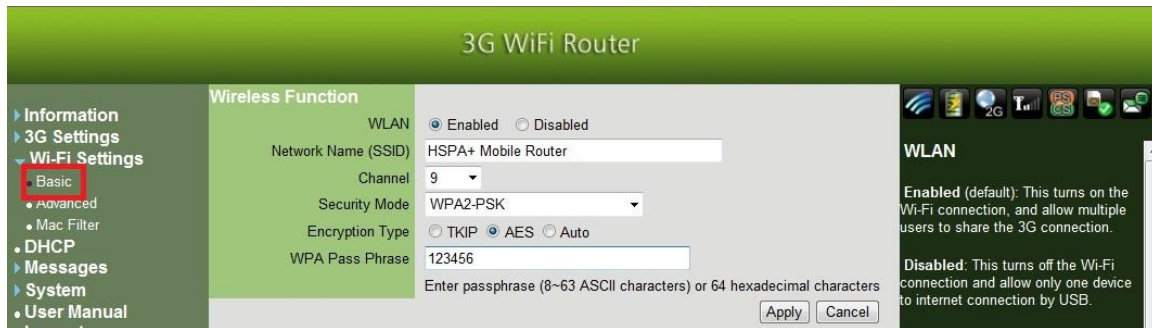
Enable: Enable the PIN Code. You need to enter correct SIM card PIN code to open 3G network.



- Set PIN Code: When PIN is enabled, you can change the PIN Code from current PIN Code to New PIN Code and confirm it in HSPA+ Mobile Router.

## 3.4 Wi-Fi Settings

### 3.4.1. Basic



- WLAN:
  - Enabled (default): This turns on the Wi-Fi connection, and becomes a router sharing the 3G connection.
  - Disabled: This turns off the Wi-Fi connection and becomes modem mode allowing only one device to internet connection by USB.
- Network Name (SSID): This is the ID of HSPA+ Mobile Router which appears on the wireless network. You can assign an ID up to 32 characters here.
- Channel: You can change the Wi-Fi radio channel in this drop-down menu.
- Encryption Type: We highly recommend you to select one of the encryption types to secure your wireless connection when using this device. Please make sure your Wi-Fi device can support the encryption mode you selected.
- WPA Pass Phrase: Enter 8 to 63 characters for the WPA encryption key. All wireless devices must use this key to connect.

### 3.4.2. Advanced



- Broadcast SSID: It is enabled by default, and anyone can see this device in the wireless network. If it is disabled, any network client who wants to connect to this device has to enter the correct SSID.
- Power Save: This function only works on no charging mode. If no any Wireless station connect to Router and idle time is up, the Wi-Fi will be turn off. At this time, user must press power button 1 second, and then the Wireless interface will be wake up again.
- Maximum Idle time: In no charging mode, you can set the idle time for power saving. If no wireless station is connected to the router and the idle time expires, Wi-Fi will turn off.
- Maximum Users: You can select the maximum number of network clients allowed to connect to this device.

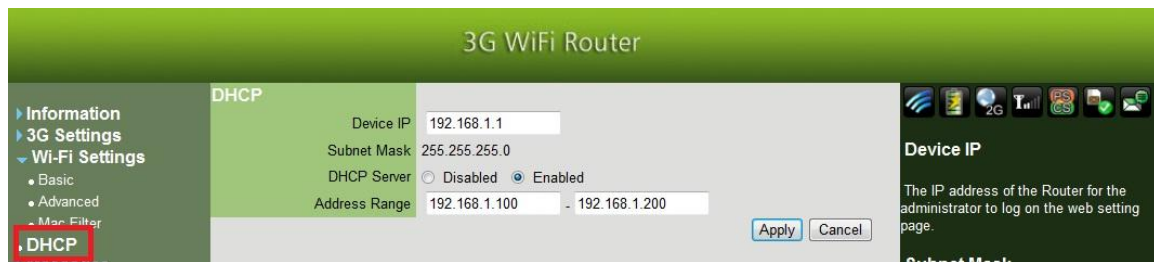
### 3.4.3. Mac filter



- MAC Address List: After enabling the MAC filter function, please enter each MAC address of the devices which is allowed to access this router.



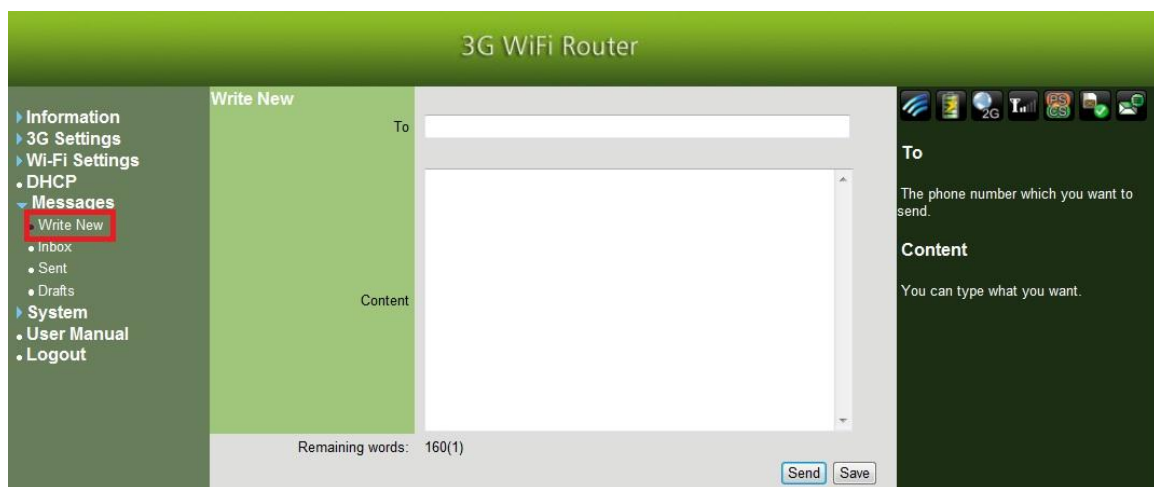
## 3.5 DHCP



- Device IP: The IP address of the HSPA+ MOBILE ROUTER for the administrator to log on the web setting page.
- Subnet Mask: The subnet mask of this device is 255.255.255.0.
- DHCP Server: The HSPA+ Mobile Router could be used as a DHCP server and assign IP address to the network client in your wireless network. The default is "Enabled".
- Address Range: Specify the range of IP address that DHCP server can assign to the network client.

## 3.6 Message

### 3.6.1. Write new



- To : The phone number which you want to send to.
- Content : Type in message here.

### 3.6.2. Inbox



- Store every received message.
- Device & SimCard : Total number of received messages/Maximum stored number.
- Delete Selected : Delete messages selected.
- Delete All : Delete all messages in the inbox.
- Read and reply messages selected.

### 3.6.3. Sent



- Stores every sent message.
- Delete Selected : Delete messages selected.
- Delete All : Delete all messages in the inbox.
- Sent and Draft Messages: Total number of messages sent and saved in draft / Maximum capacity of messages.

### 3.6.4. Draft



- Store the draft. You can continue to edit the message afterwards
- Delete Selected : Delete messages selected.
- Delete All : Delete all messages in the inbox.
- Sent and Draft Messages: Total number of messages sent and draft saved / Maximum capacity of stored messages.

## 3.7 System

### 3.7.1. Administrator



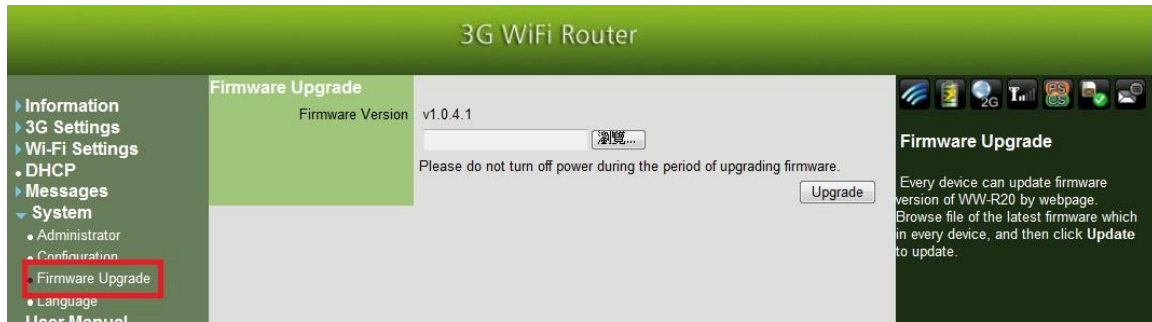
- Login Name: Using "admin" account log in this web page for network and wireless settings.
- New Password: The default password is "admin". You can enter new password here for admin to log in setting page.
- Retype Password: You should enter the same password as above for confirmation.

### 3.7.2. Configuration



- Restore Default: Press this button to restore to factory default settings.

### 3.7.3. Firmware Upgrade



- Every device can update firmware version of HSPA+ MOBILE ROUTER by webpage. Browse file of the latest firmware which in every device, and then click “Update” to update.

### 3.7.4. Language



- Default Language: You can select the default language for web setting page in this drop-down menu.

## 4. Troubleshooting

### 1. Why can't I access the web setting page?

Ans:

1. Please check if the LED is illuminating, otherwise you may need to unplug the HSPA+ MOBILE ROUTER and insert once again.
2. Please make sure if your device has connected to the SSID via Wi-Fi.
3. The default IP address is 192.168.1.1, please make sure you have typed it correctly in your web browser.

### 2. How to restore to default router settings?

Ans:

1. Please connect to HSPA+ MOBILE ROUTER and log in to the router web setting page, the default IP address is <http://192.168.1.1>
2. Open the page through "System" -> "Configuration" and click on "Restore Default" button.

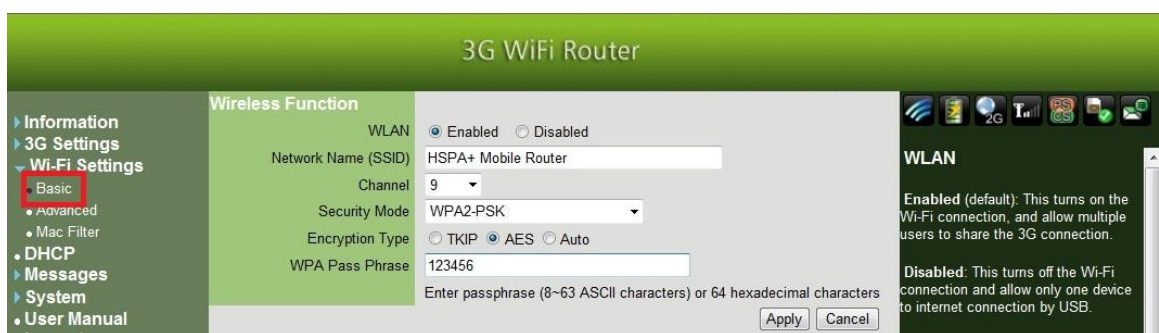
### 3. What is the LED meaning of illuminating?

Ans: Please refer to "1.3.1 Appearance."

### 4. Why can't I see "HSPA+ Mobile Router" appearing in the wireless network?

Ans:

1. Connect HSPA+ MOBILE ROUTER with your device by USB.
2. Type 192.168.1.1 in your web browser to open connection manager.
3. Go to the "Wi-Fi Settings -> Basic" and make sure you have selected "Enabled" option in "WLAN".



4. Go to the page “Wi-Fi Settings -> Advanced” and make sure you have selected the “Enabled” option in “Broadcast SSID”.



5. What should I do if my SIM card is locked and I can't connect to the mobile network?

Ans: Please contact your service provider for further assistance.