LTE MiFi（M100）User Manual

Index

1. About this Manual

The content of this User Manual has been made as accurate as possible. However, due to continual product improvements, specifications and other information are subject to change without notice.

2. Product Overview

This MiFi supports LTE Band 2/4/5/12/17 (Subject to the configuration of LTE module) and it supports popular operating systems like Windows, Linux and Mac.

Please refer to the Quick Start Guide that is part of the MiFi supply. Once you have identified the place for MiFi insert USIM card supplied by your service provider at the appropriate place, plug in the adapter in the AC socket and DC in the power port of MiFi. Switch on the power Off/On switch and after few minutes the MiFi should attach itself to the LTE network. It is as simple as that. It is advised to read this manual at leisure to make best use of the MiFi.

3. Configuring the router

The basic settings in WebGUI consist of six main parts named MIFI HOME, CONNECTED DEVICES, DATA USAGE, SETTINGS, CUSTOMER SUPPORT, and ABOUT. You can login to WebGUI as follows, and configure the settings according to your requirements.

Connect the PC to MiFi. Power on the device and waiting for about 40 seconds until the device finished initializing. Please ensure that USIM card has been inserted into USIM slot in MiFi.

You can also connect the PC to MiFi by WiFi, choose the correct WiFi SSID and input the accurate password as the label shows. The default WiFi SSID is "MiFi-xxxxxx".

3.1 Login

Open your Web browser and enter 192.168.0.1 in the address bar;
Login window will popup;
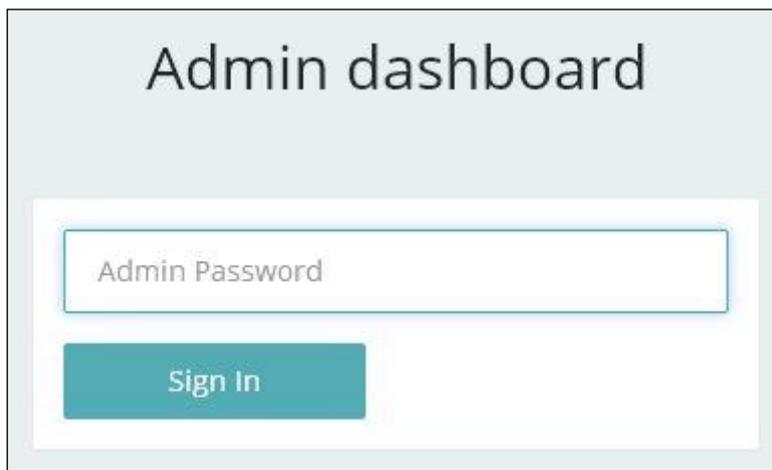When prompted for password, enter the following password.
Password: admin

Figure 3-1-1 Login page

3.2 MIFI HOME

After successful login, the following screen will appear and you will see six main menus on the left bar of the WebGUI.

Click "Logout", the screen will turn to login window.

From this page, you can also know Network Provider, Wi-Fi Network Name, Wi-Fi Network Password, Signal, Battery Power, Connected Devices, Data Usage and Messages, Help&Support. You can also edit Wi-Fi Network Name and change Wi-Fi Network Password.
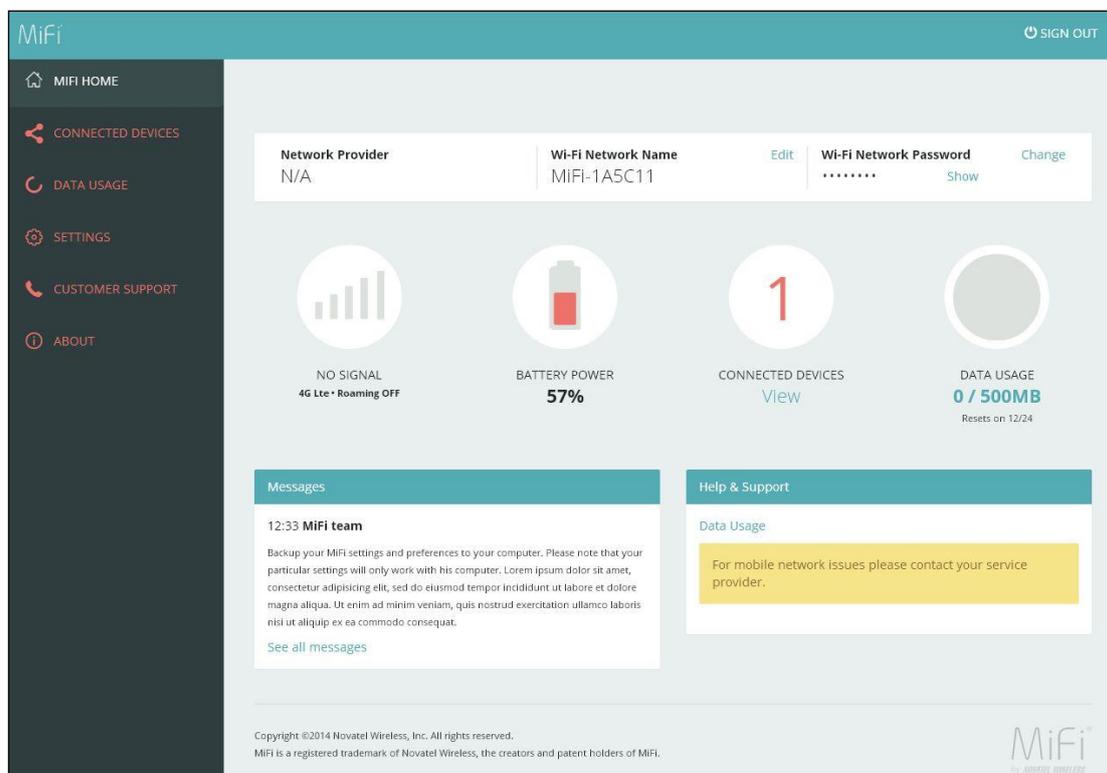

Figure 3-2-1 MIFI HOME

3.3 CONNECTED DEVICES

On this page, you can see Connected Devices, Blocked Devices and change max connections.

Figure 3-3-1 CONNECTED DEVICES

"Connected Devices" shows the clients that connect to the device, include by USB cable and WiFi.

Figure 3-3-2 Connected Devices

The default max connection is 15, click "Change Max Connections" button, it will access Wi-Fi Hotspot page, you can change max connections in the "Max Wi-Fi connections" field.
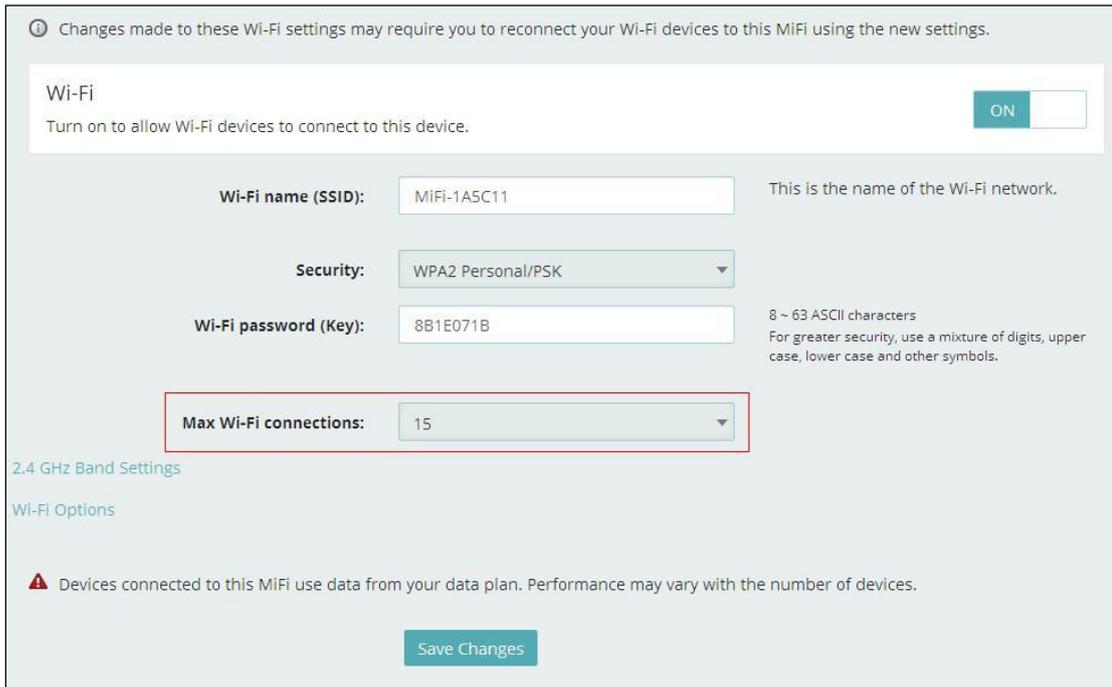

Figure 3-3-3 Change Max Connections

Figure 3-3-4 Wi-Fi Hotspot page

Click "Edit" button to edit the type and hostname of the client.

Figure 3-3-5 Edit button

Figure 3-3-6 Edit page

Choose a WiFi client and click "Block" button, this client will display in the "Blocked Devices" and disconnect with the device.

Figure 3-3-7 Block button

"Blocked Devices" shows the clients that be blocked

Figure 3-3-8 Blocked devices page

Choose a blocked client and click "Unblock" button, this client will disappear from the "Blocked Devices" list, it will show in the "Connected Devices" again after it connects to the device.
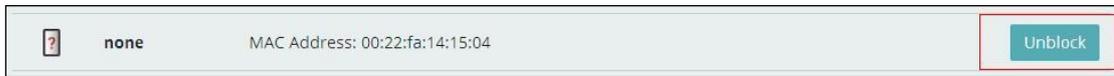
Figure 3-3-8 Unblock button

3.4 DATA USAGE

The estimated data usage is displayed in this page, you can manage your account and view your bill at TBD.
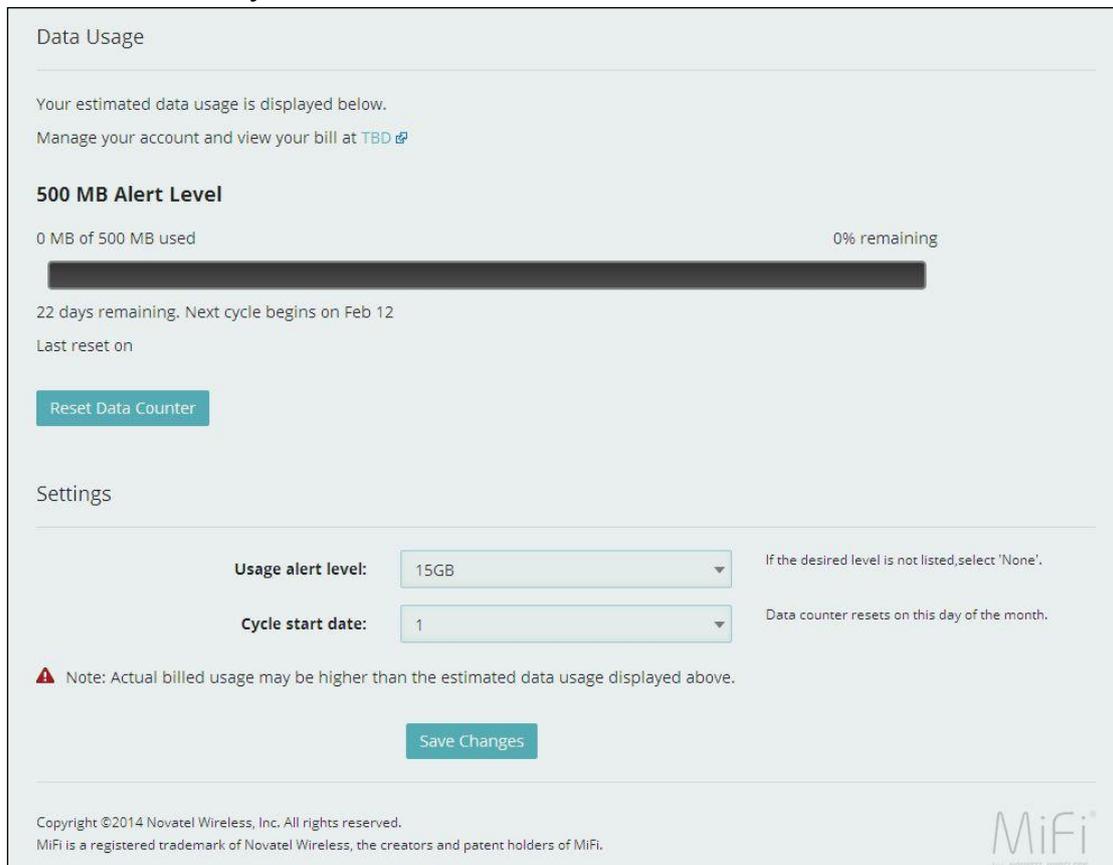

Figure 3-4-1 Data Usage

"Alert Level" area shows the data and days remaining, you can click "Reset Data Counter" to clear all the data.

Figure 3-4-2 Alert level area

"Usage alert level" and " Cycle start data" can be changed in the "Settings" area.
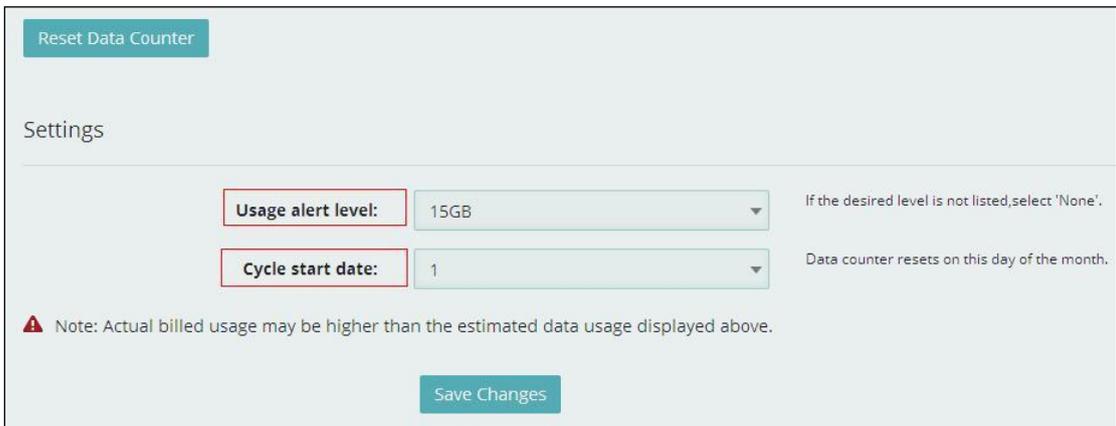
Figure 3-4-3 Settings

3.5 SETTINGS

On this page, you can see Wi-Fi Hotspot, Device Settings, Mobile Settings and Advanced.

Figure 3-5-1 Settings

3.5.1 Wi-Fi Hotspot

Clicking on the "Wi-Fi Hotspot" tab will take you to the "Wi-Fi Hotspot" page. On this page, the settings about WiFi can be viewed and changed.

Figure 3-5-1-1 Wi-Fi Hotspot

➢ **Wi-Fi – ON/OFF**

Turn on allow Wi-Fi devices to connect to this device. Wi-Fi devices will not connect to this device after turn off.

➢ **Wi-Fi name(SSID)**

To identify your wireless network, a name called the SSID (Service Set Identifier) is used. You can set it to anything you like and you should make sure that your SSID is unique if there are other wireless networks operating in your area.

➢ **Security**

You can set the wireless security and encryption to prevent the router from unauthorized access and monitoring. The default security is "WPA2 Personal/PSK", you can also set "Security" as "WPA Personal/PSK", "WPA/WPA2 Mixed Mode" and "None".

Figure 3-5-1-2 Security

➢ **Wi-Fi password(Key)**

You can set the password as 8~63 ASCII characters. For greater security, use a mixture of digits, upper case, lower case and other symbols.

➢ **Max Wi-Fi connections**

The default max Wi-Fi connection is 15, you can set it as 1~15.

Figure 3-5-1-3 Max Wi-Fi connections

➢ **2.4 GHz Band Settings**

"2.4 GHz Band Settings" includes "802.11 Mode" and "Channel".

Figure 3-5-1-4 2.4 GHz Band Settings

The default "802.11 Mode" is "802.11b+802.11g+802.11n", you can also set it as "802.11b+802.11g", "802.11b", "802.11g" and "802.11g+802.11n".
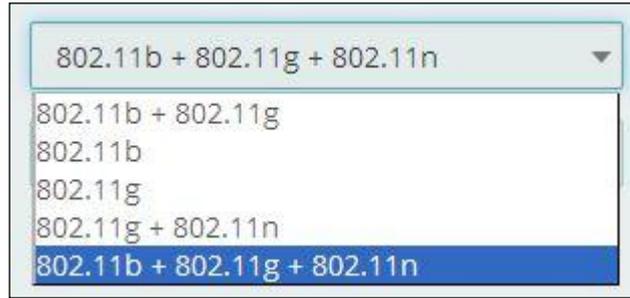
Figure 3-5-1-5 802.11 Mode

The default "Channel" is "Automatic", you can set it as from channel 1 to channel 11.
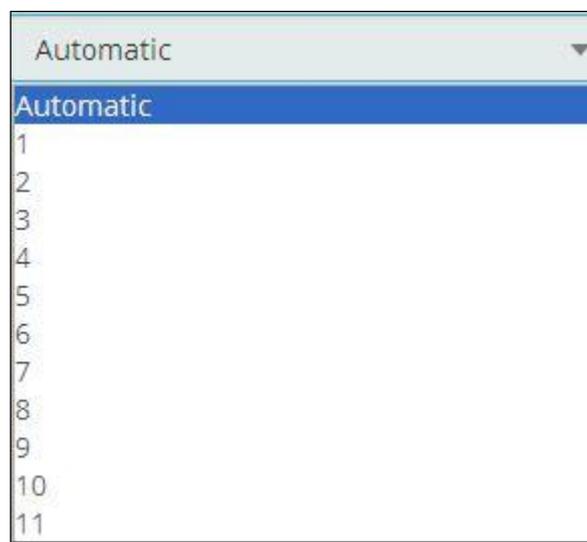

Figure 3-5-1-6 Channel

➢ **Wi-Fi Options**

"Wi-Fi Options" includes "WPS", "Broadcast Wi-Fi name(SSID)", "Wi-Fi Multimedia(WMM)" and "Wi-Fi privacy separation".
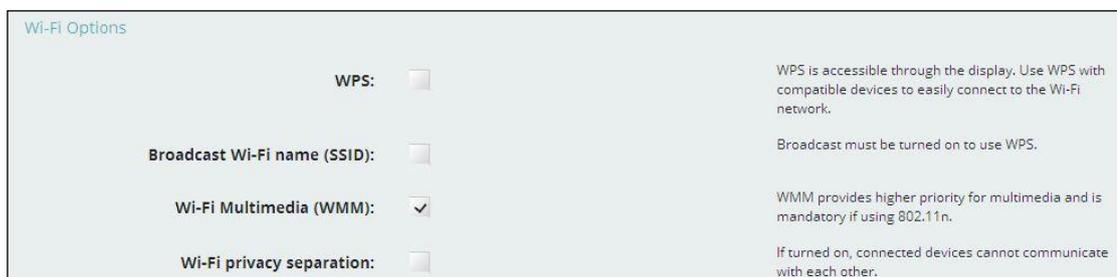

Figure 3-5-1-7 Wi-Fi Options

"WPS" is accessible through the display. Use "WPS" with compatible devices to easily connect to the Wi-Fi network. "Broadcast" must be turned on to use "WPS".

The wireless client can search and connect to the SSID after turning on "Broadcast Wi-Fi name(SSID)"; the wireless client must input SSID manually to connect to the SSID after turning off "Broadcast Wi-Fi name(SSID)".

"WMM" provides higher priority for multimedia and is mandatory if using 802.11n.

If turned on, connected devices cannot communicate with each other.

3.5.2 Device Settings

From this page, you can see four menus: "Preference", "Admin Password", "Software Update" and "Backup and Restore".

Figure 3-5-2-1 Device Settings

3.5.2.1 Preference

You can set up "Device Preferences", "Notifications" and "User Preferences" in this page.
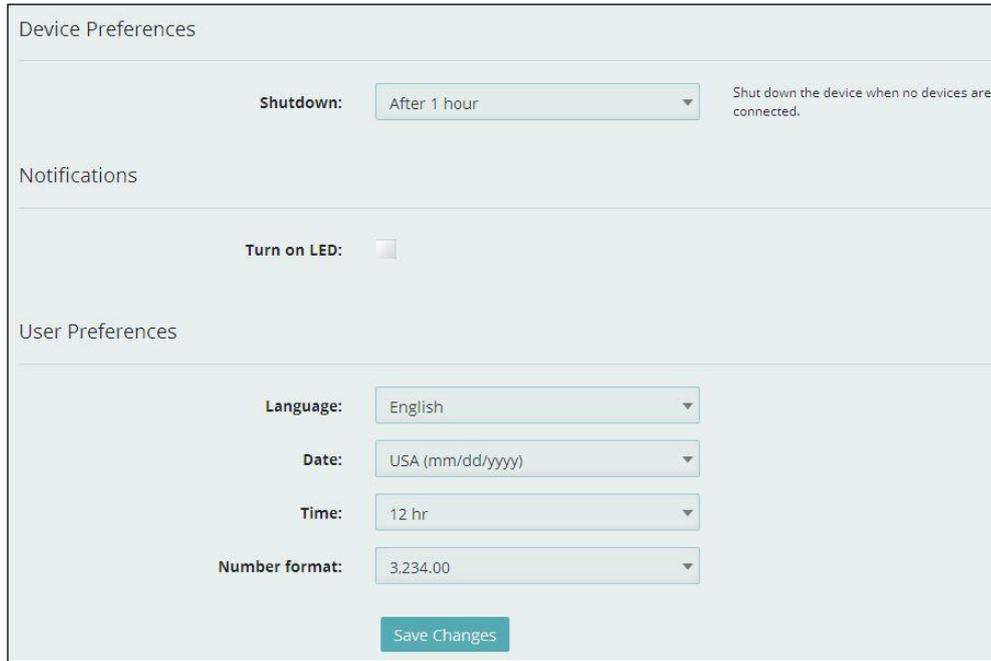
Figure 3-5-2-1-1 Preferences

➢ **Devices Preferences**

The device will shut down automatically when no devices are connected after the time that you set. The default time is "After 1 hour", you can set it as from "After 1 hour" to "After 24 hours" and "Never".

➢ **Notification**

Ticked "Turn on LED", the LED of the device will turn on; cancel ticked "Turn on LED", the LED of the device will turn off.

➢ **User Preference**

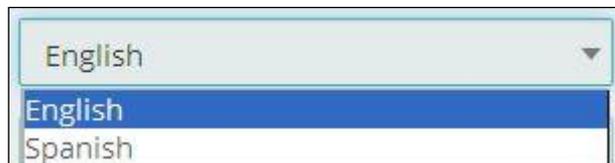The default "Language" is "English". It can be set as "Spanish".

Figure 3-5-2-1-2 Language

The default "Date" is "USA(mm/dd/yyyy)". It can be set as "Europe(dd/mm/yyyy)".

06/16/14   14
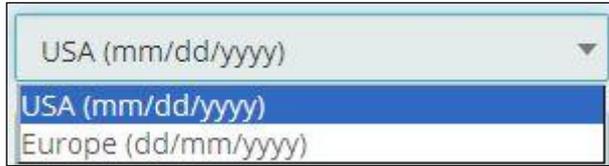
Figure 3-5-2-1-3 Date

The default "Time" is "12hr". It can be set as "24hr".

Figure 3-5-2-1-4 Time

The default "Number format" is "3,234.00". It can be set as "3.234,00".
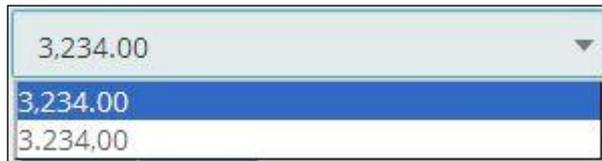

Figure 3-5-2-1-5 Number format

3.5.2.2 Admin Password

The Admin Password is used to sign in to this web-based management system. Enter and confirm the new Admin Password, and set or change the security question used for verification if you forget the Admin password.

Figure 3-5-2-2-1 Admin Password

3.5.2.3 Software Update

On this page, you can upgrade the current firmware version from the local PC. 100s is needed to complete the whole upgrade process, and then the device will reboot automatically.
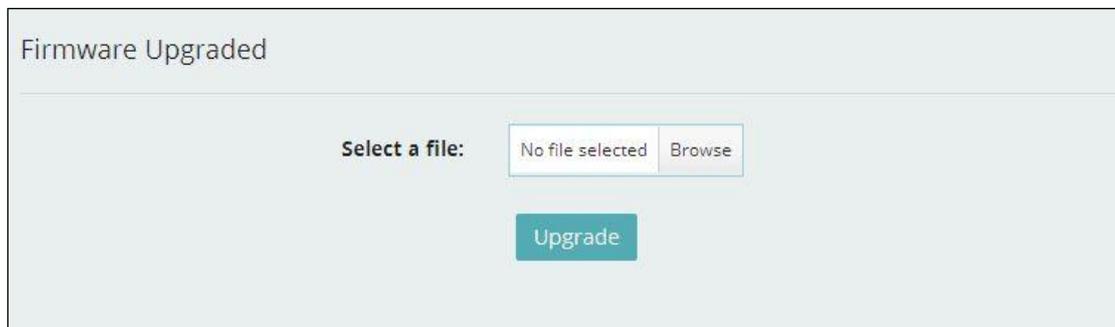
Figure 3-5-2-3-1 Software Update

Note:
1) The firmware version must be suitable for the corresponding hardware;
2) Please make sure the adequate and stable power supply while upgrading.

3.5.2.4 Backup and Restore

On this page, you can operate "Backup", "Restore" and "Restore Factory Defaults".

Figure 3-5-2-4-1 Backup and Restore

➢ **Backup**

Backup your MiFi settings and preferences to your computer.

Figure 3-5-2-4-2 Backup

Note:

1) The backup file will only work with this particular MiFi;

2) You will be locked out if an incorrect password is used too many times.

➢ **Restore**

Upload a previously saved backup file from this device to restore your settings.
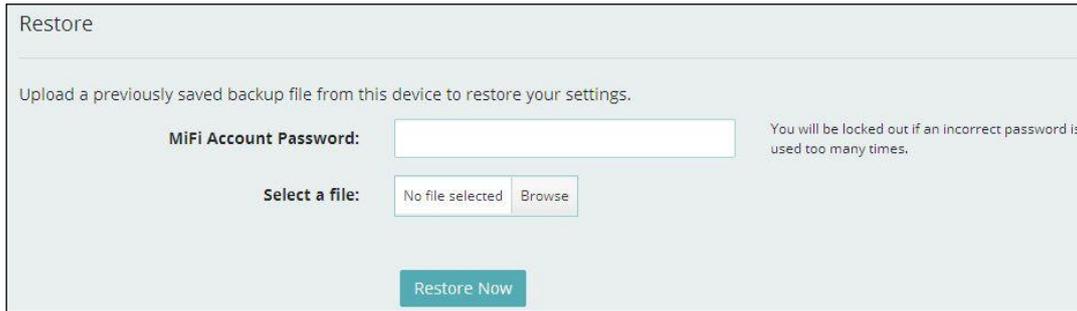
Figure 3-5-2-4-3 Restore

Note:

1) You will be locked out if an incorrect password is used too many times.

➢ **Restore Factory Defaults**

Restore all settings to the factory default values. You can also restart MiFi and shutdown MiFi.

Figure 3-5-2-4-4 Restore Factory Defaults

3.5.3 Mobile Settings

From this page, you can see four menus: "Mobile", "APN", "Manual DNS" and "SIM Lock"

Figure 3-5-3-1 Mobile Settings

3.5.3.1 Mobile

On this page, you can manage your mobile broadband data connection, including "Cellular Data" and "International Roaming".

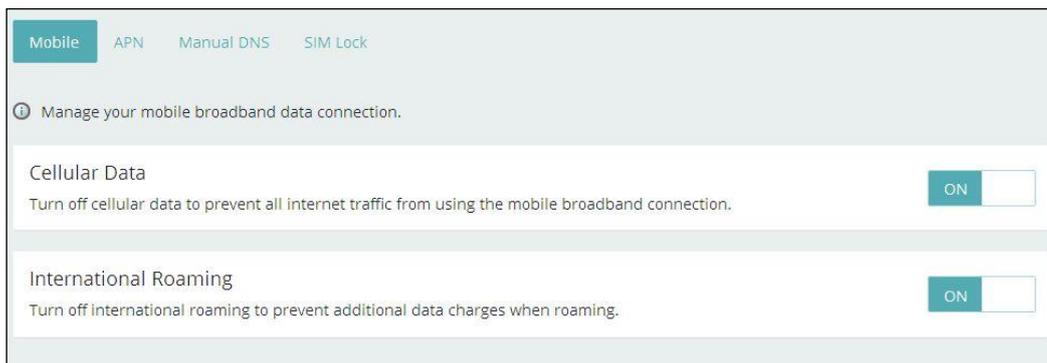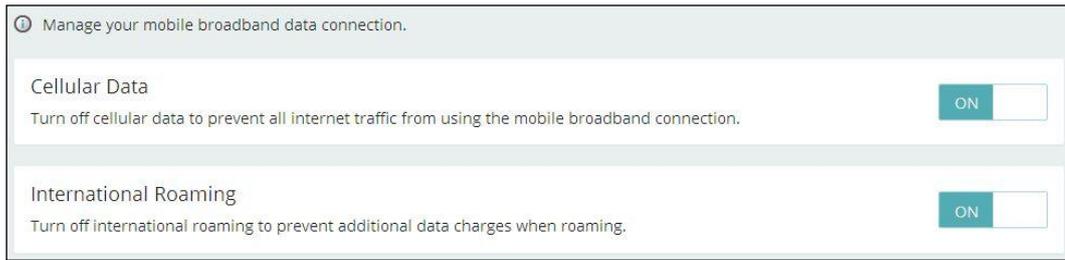Figure 3-5-3-1-1 Mobile

➢ **Cellular Data**

Turn off cellular data to prevent all internet traffic from using the mobile broadband connection.

➢ **International Roaming**

Turn off international roaming to prevent additional data charges when roaming.

3.5.3.2 APN

On this page, you can set up "APN" configuration. But changing default settings may adversely affect your internet connection.

Figure 3-5-3-2-1 APN

3.5.3.3 Manual DNS

Your MiFi automatically selects a Domain Name Server(DNS) or you can manually set one on this page.

Figure 3-5-3-3-1 Manual DNS
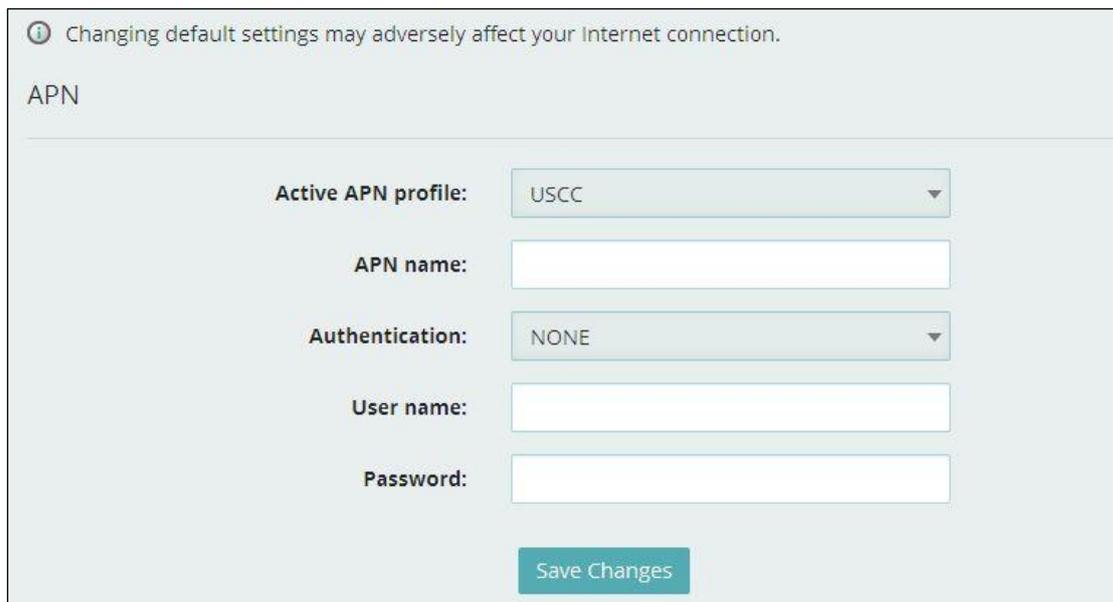
3.5.3.4 SIM Lock

For additional security, the SIM card inside your MiFi can be locked with a PIN code. When locked, the PIN code must be entered before the MiFi will connect to the internet. The default PIN is available from your service provider.

If the PIN Lock feature is ON, you will need to enter the SIM PIN every time the MiFi is powered on.

Figure 3-5-3-4-1 SIM Lock

Note:

Entering an incorrect PIN more than 3 times will permanently lock your SIM and you will be unable to use the device. You will need to connect Verizon customer support to unlock the SIM.

3.5.4 Advanced

On this page, you can see five menus: "Firewall", "MAC Filter", "LAN", "Port Filtering" and "Port Forwarding".
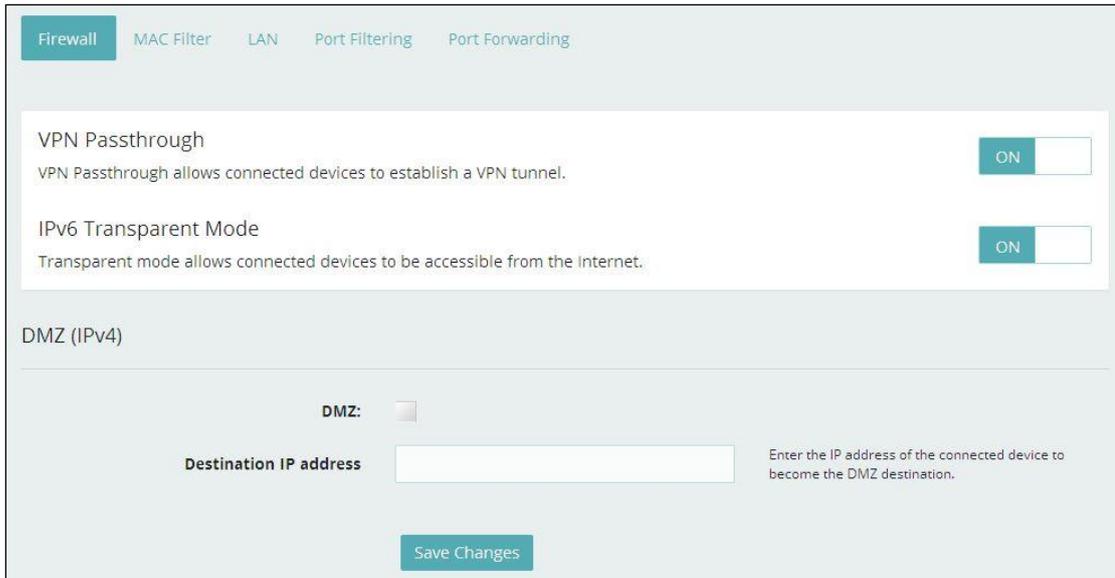
Figure 3-5-4-1 Advanced page

3.5.4.1 Firewall
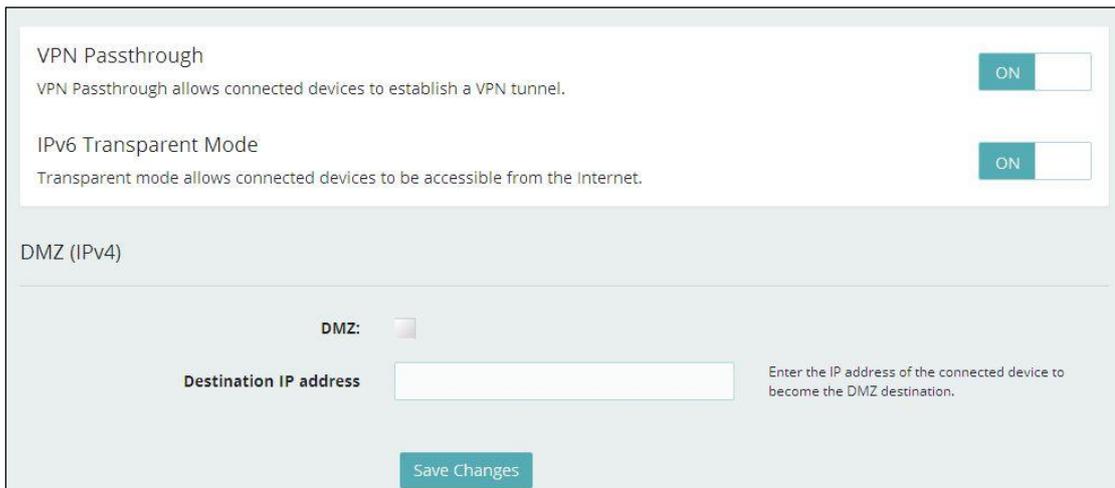
Figure 3-5-4-1-1 Firewall

➢ **VPN Passthrough**

After turned on, VPN Passthrough allows connected devices to establish a VPN tunnel.

➢ **IPv6 Transparent Mode**

After turned on, transparent mode allows connected devices to be accessible from the internet.

➢ **DMZ(IPv4)**

Enter the IP address of the connected device in the "Destination IP address" input field to become the DMZ destination.

After enabling DMZ feature, the all applications of the connected device will be visited.

3.5.4.2 MAC Filter
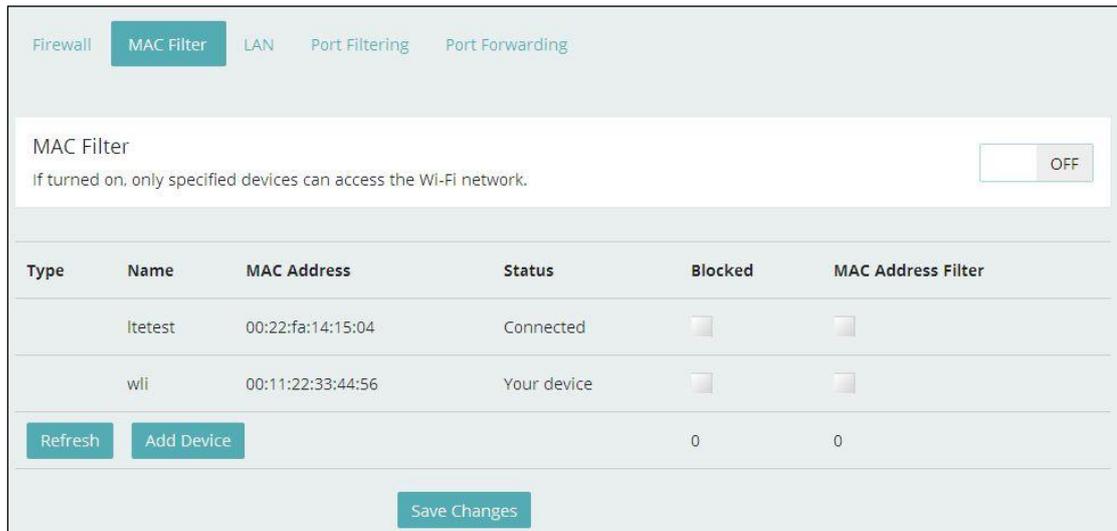
Figure 3-5-4-2-1 MAC Filter

The default "MAC Filter" status is "OFF", and is a Whitelist, all the clients can connect to the MiFi.

For any given device, the interaction of the MAC Filter with the "Block" feature on the Connected Devices screen is shown on the following table.

#	Included in Block List	Included in MAC Filter List	Connection
1	No	Yes	Allowed
2	No	No	Not allowed
3	Yes	Yes	Not allowed
4	Yes	No	Not allowed

Figure 3-5-4-2-2 MAC Filter Interaction

The "Block"(Blacklist) feature is always available. After blocked, the blocked devices will disconnect from MiFi.

Figure 3-5-4-2-3 Blocked

Because enabling the MAC Filter could potentially disconnect all devices, the user need to populate the "MAC Address Filter" list first while the MAC Filter is OFF. Otherwise while you click "ON/OFF" button, it will prompt warning information as follows:

Figure 3-5-4-2-4 Warning Information

After change "MAC Filter" to "ON", only located "MAC Address Filter" list devices can connect to MiFi, other devices will disconnect from MiFi.

Figure 3-5-4-2-5 MAC Filter ON

You can click "Add Device" button to add the devices, the added devices can connect MIFi.

Figure 3-5-4-2-6 Add Device

The following limits are enforced. When either of these limits is reached, the "Add Device" button is grayed out.

Maximum number of devices=300

Maximum number of devices which can be input at one time=50

3.5.4.3 LAN

Figure 3-5-4-3-1 LAN

➢ **IPv4**

IP Address - Enter the IP address of your router (factory default: 192.168.0.1).

Subnet Mask - An address code that determines the size of the network. Normally use 255.255.255.0 as the subnet mask.

MAC Address - It need to be written to the device while producing.

Turn on DHCP server - Enable or Disable the DHCP server. If you disable the Server, you must have another DHCP server within your network or else you must configure the address of your PC manually.

Start DHCP address range at - Specify an IP address for the DHCP server to start with when assigning IP address. The default start address is 192.168.0.10.

DHCP address range –

DHCP lease time - The Lease Time is the amount of time a network user will be allowed connection to the router with their current dynamic IP address. Enter the amount of time in minutes and the user will be "leased" this dynamic IP address. After the time is up, the user will be assigned a new dynamic IP address automatically.

➢ **IPv6**

When on, connected devices can make IPv6 connections to the Internet.

3.5.4.4 Port Filtering

Figure 3-5-4-4-1 Port Filtering

➢ **Applications**

The default applications have "Email(POP3, IMAP, SMTP)", "FTP", "HTTP", "HTTPS" and "Telnet". If on, only traffic from selected applications can access the Internet. Note that DNS is always allowed.

➢ **Custom Applications**

Click "Add a Custom Application" to define your own applications, and then turn them on or off as needed. To define an application, you need to know outgoing ports used by application.

Figure 3-5-4-4-2 Add a Custom Application

3.5.4.5 Port Forwarding

Figure 3-5-4-5-1 Port Forwarding

➢ **Default Application**

The default applications have "DNS", "FTP", "HTTP", "POP3", "SMTP", "SNMP", "Telnet" and "TFTP". Port forwarding sends specific incoming traffic to a connected device. The connected device is specified using IP address.

➢ **Custom Application**

Click "Add a Custom Application" to define your own applications, and then turn them on or off as needed. To define an application, you need to know the incoming ports used by the application.

Figure 3-5-4-5-2 Add a Custom Application

3.6 CUSTOMER SUPPORT

On this page, you can see "Your Wireless Number", "My Account", "Self Service

Support" and "US Cellular Customer Service".
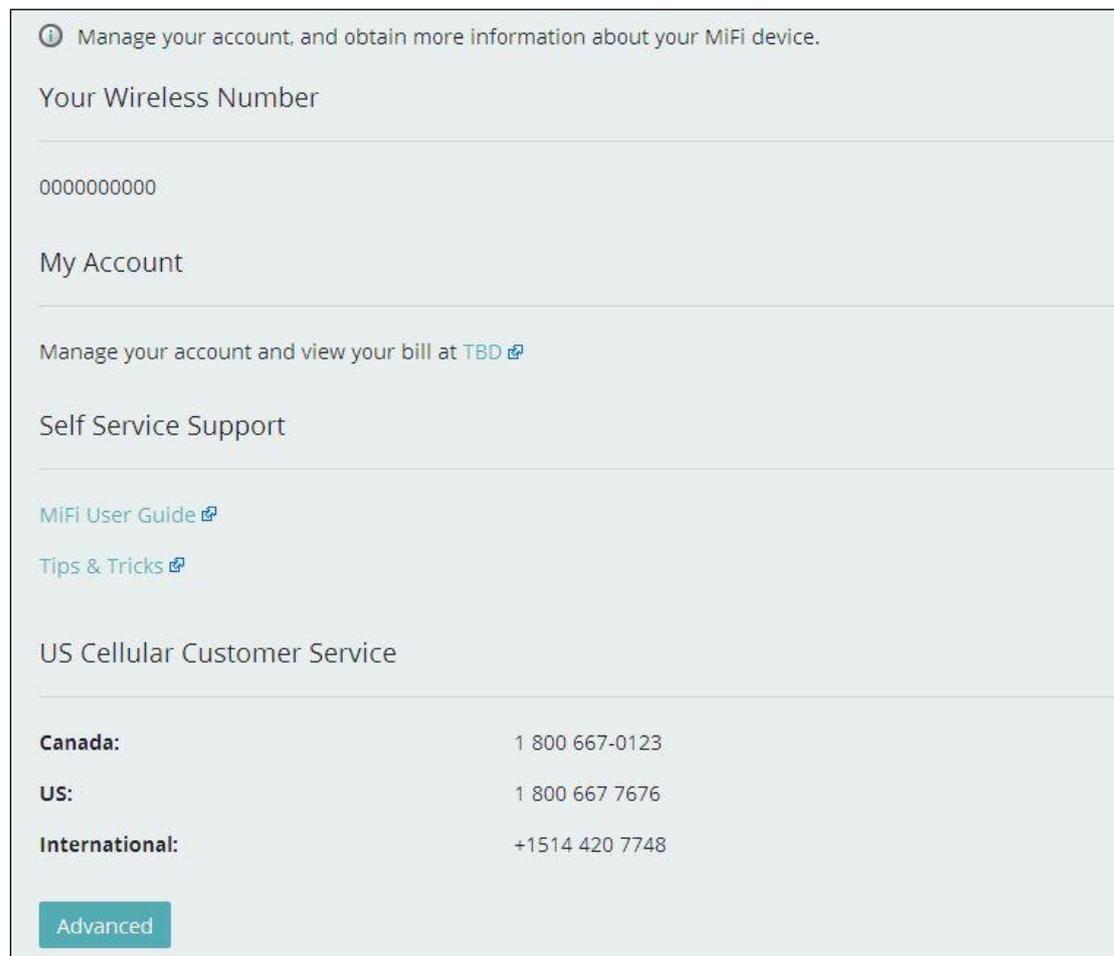
Figure 3-6-1 Customer Support

➢ **Your Wireless Number**

After writing the SN number for MiFi, it will display here.

➢ **My Account**

Manage your account and view your bill at TBD.

➢ **Self Service Support**

You can see "MiFi User Guide" and "Tips&Tricks" here.

➢ **US Cellular Customer Service**

It includes Canada, US and International service number.

➢ **Advanced**

Click "Advanced" button to enter the code by your service provider.

Figure 3-6-2 Advanced

3.7 ABOUT

On this page, you can see four menus: "Internet Status", "Device Info", "Diagnostics" and "Logs".

Figure 3-7-1 About

3.7.1 Internet Status

From this page, you can see "Internet", "IPv4" and "Ipv6" status.

Figure 3-7-1-1 Internet Status

3.7.2 Device Info

From this page, you can "Device Info" that includes "Manufacturer", "Model", "Software version", "MiFi OS version", "Modem FW version", "Wi-Fi FW version", "Web UI version" and "PRI version".

Figure 3-7-2-1 Device Info

3.7.3 Diagnostics

From this page, you can see "Modem" and "4G LTE Network" information. This detailed information is used only for troubleshooting and technical support.

Figure 3-7-3-1 Diagnostics

3.7.4 Logs

Figure 3-7-4-1 Logs

Logs are for troubleshooting, and are not needed for normal operation.

➢ **Turn on logs**

You can turn on or off logs.

➢ **Delete system log**

The default "Delete system log" is "After 4 day", you can set it as "After 1 day", "After 2 day" or "After 3 day".

Figure 3-7-4-2 Delete system log

If the system log is full, then oldest data is discarded, regardless of this setting.
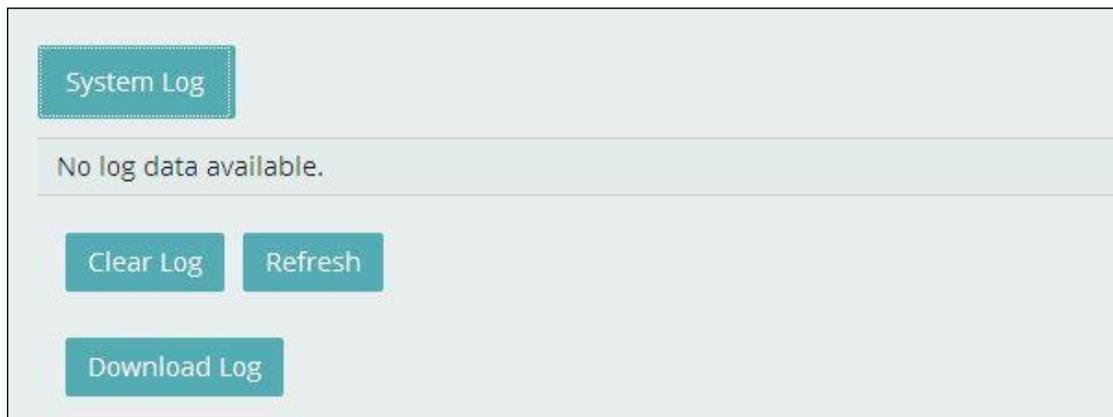
➢ **System Log**

You can clear or download log here.

Figure 3-7-4-3 system log

4. Revision History

Author	Revision	Changes	Date
Wei Li	v1.0	Initial Draft	2015-04-16

INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Operation is subject to the condition that this device does not cause harmful interference.

Caution: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note: This equipment 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.

Health and safety information

Radio Frequency (RF) Energy

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

This Mifi 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 Mifi 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 Mifi 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 Mifi while operating can be well below the maximum value.   This is because the Mifi is designed to operate at multiple power levels so as to

use only the poser 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 model Mifi as reported to the FCC when worn on the body, as described in this user guide, is 1.45 W/kg (Body-worn measurements differ among Mifi models, depending upon available enhancements and FCC requirements).

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

The FCC has granted an Equipment Authorization for this model Mifi with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model Mifi is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on

FCC ID: PKRNVWM100

For body worn operation, this Mifi has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 10 mm from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body-worn accessory and are not holding the Mifi at the ear, position the handset a minimum of 10 mm from your body when the Mifi is switched on.