5G Ethernet Modem

IDG450-0GT0C (5G NR)

User Manual

5G Ethernet Modem

Chapter 1 Introduction

1.1 Introduction

Congratulations on your purchase of AMIT's IDG450 M2M 5G Modem. With this AMIT 5G modem you have made a great first step in the world of connected Internet of things (IOT) by simply inserting a SIM card from the local mobile carrier into this device to get things connected. This section gives you all the information you need to set up your device.

Main Features:

- Provide 5G WAN connection and is back compatible with 3G/4G.
- Provide one 2.5 Gigabit Ethernet port for the LAN connection.
- Instinctive Web GUI is used for basic setting and check the cellular status.
- Designed easy-to-mount metal body for business and M2M environment to work with a variety M2M (Machine-to-Machine) applications.

Before you install and use this product, please read this manual in detail for fully exploiting the functions of this product.

1.2 Contents List

1.2.1 Package Contents

#Standard Package

Items	Description	Contents	Quantity
1	**IDG450-0GT0C** **5G Ethernet Modem**		1pc
2-1	**Cellular Antenna-Japan**		4pcs
2-2	**Cellular Antenna**		4pcs
3	**RJ45 Cable**		1pc
4	**2 Pin Terminal Block**		1pc

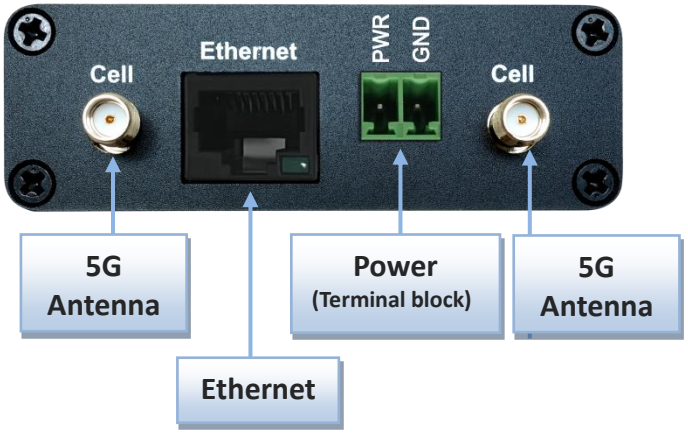
#Optional Package

Items	Description	Contents	Quantity
1	**Power Adapter** **(DC 12V/1A)**		1pcs
2	**Wall mount kit**	left  right 	1 set (L-shaped iron piece: screw x 4 IDG450 housing: screw x4)

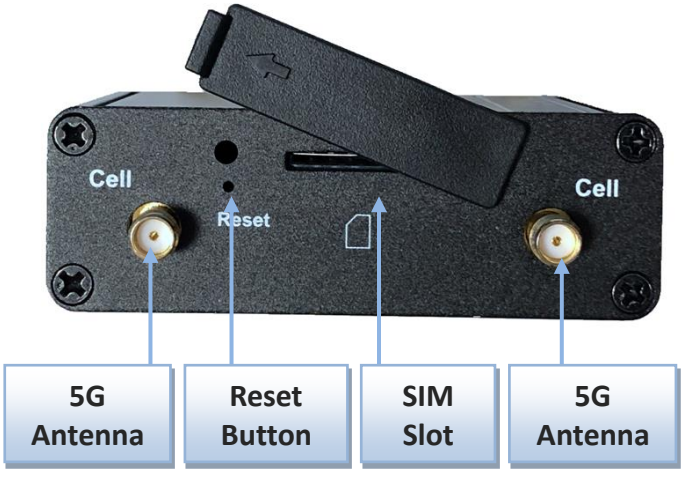
3	**DIN rail kit**		1 set (DIN rail: screw x3 IDG450 housing: screw x2)

1.3Hardware Configuration

➢ Right View



➢ RightView



※Reset Button

RESET button provides user a quick and easy way to resort the default setting. Press the RESET button continuously for more than 8 seconds when the Cell/PDP LED (blue and red) flashes alternately for 3~4 seconds, and then release it. The device will restore to factory default settings.

1.4 LED Indication

Indication	LEDColor	Description
Power	Blue	**Steady On**: Device power is on **Off**: Device power is off
Cell/PDP	Blue Red	**Red and Steady On:** Cellular is not registered to network. **Red and Flash:** Cellular is registering to network. **Blue and Steady On:** The device registers to 5G network. **Blue and Slow Flash:** The device registers to LTE or3G network.
Signal Strength	Blue	**Blue and Steady On:** Cellular signal is good. **Blue and Slow Flash:** Cellular signal is weak. **OFF:** No cellular signal.

1.5 Installation& MaintenanceNotice

1.5.1 SYSTEM REQUIREMENTS

Network Requirements	• AEthernet RJ45cable • 4G/5G cellular service subscription • 100/1000M Ethernet adapter on PC
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter **Browser Requirements:** • Internet Explorer 8.0 or higher • Chrome 2.0 or higher • Firefox 3.0 or higher • Safari 3.0 or higher

1.5.2 WARNING

Attention

- Only use the power adapter that comes with the package. Using a different voltage rating power adaptor is dangerous and may damage the product.
- Do not open or repair the case yourself. If the product is too hot, turn off the power immediately and have it repaired at a qualified service center.
- Place the product on a stable surface and avoid using this product and accessories outdoors.

Federal Communication Commission Interference Statement

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 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 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 thattowhich the receiver isconnected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FOR PORTABLE DEVICE USAGE (<20m from body/SAR needed)

Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

FOR MOBILE DEVICE USAGE (>20cm/low power)

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FOR COUNTRY CODE SELECTION USAGE (WLAN DEVICES)

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

1.5.3 HOT SURFACE CAUTION

CAUTION: The surface temperature for the metallic enclosure can be very high!
Especially after operating for a long time, installed at a closed cabinet without air conditioning support, or in a high ambient temperature space.
DO NOT touch the hot surface while servicing!!

1.5.4 Product Information for CE RED Requirements

The following product information is required to be presented in product User Manual for latest CE RED requirements.[1]

(1) Frequency Band & Maximum Power

1.a Frequency Band for 5G NR /4G LTEConnection (for RM520N-GL version)[2]

Band number	Operating Frequency	Max output power
5G NR bands (n1/n2/n3/n5/n7/n8/n12/n13/n14/ n20/n25/n26/n28/n29/n30/n48/n66/ n71/n75/n76/)	N1 Uplink: 1920-1980 MHz Downlink: 2110-2170 MHz N2 Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz N3 Uplink: 1710-1785 MHz Downlink: 1805-1880 MHz N5 Uplink: 824-849 MHz Downlink: 869-894 MHz N7 Uplink: 2500-2570 MHz Downlink: 2620-2690 MHz N8 Uplink: 880-915 MHz Downlink: 925-960 MHz N12 Uplink: 699-716MHz Downlink: 729-746MHz N13 Uplink: 777-787MHz Downlink: 746-756MHz N14 Uplink: 788-798MHz Downlink: 758-768MHz N20 Uplink: 832-862 MHz Downlink: 791-821 MHz N25 Uplink: 1850-1915 MHz Downlink: 1930-1995 MHz N26 Uplink: 814-849 MHz Downlink: 859-894 MHz N28 Uplink: 703-748 MHz Downlink: 758-803 MHz N29 Downlink: 711-728 MHz N30 Uplink: 2305-2315 MHz Downlink: 2350-2360 MHz N48 Uplink: 3550-3700MHz Downlink: 3550-3700MHz	23±2 dBm

1 The information presented in this section is ONLY valid for the EU/EFTA regional version.For those non-CE/EFTA versions, please refer to the corresponding product specification.

2There can be different cellular module intrgrated in the device for EU/EFTA regional version. Refer to the cellular module identifier printed on the device label for the purchased device.

	N66 Uplink: 1710-1780MHz Downlink: 2110-2200MHz N71 Uplink: 663-698MHz Downlink: 617-652MHz N75 Downlink: 1432-1517MHz N76 Downlink: 1427-1432MHz	
LTE & 5G NR HUPE Bands (n38/n40/n41/n77/n78/n79)	N38 Uplink: 2570-2620MHz Downlink:2570-2620MHz N40 Uplink: 2300-2400MHz Downlink: 2300-2400MHz N41 Uplink: 2496-2690MHz Downlink: 2496-2690MHz N77 Uplink: 3300-4200MHz Downlink: 3300-4200MHz N78 Uplink: 3300-3800MHz Downlink: 3300-3800MHz N79 Uplink: 4400-5000MHz Downlink: 4400-5000MHz	26+2/-3 dBm
LTE Bands	B1 Uplink: 1920-1980 MHz Downlink: 2110-2170 MHz B2 Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz B3 Uplink: 1710-1785 MHz Downlink: 1805-1880 MHz B4 Uplink: 1710-1755 MHz Downlink: 2110-2155 MHz B5 Uplink: 824-849 MHz Downlink: 869-894 MHz B7 Uplink: 2500-2570 MHz Downlink: 2620-2690 MHz B8 Uplink: 880-915 MHz Downlink: 925-960 MHz B12 Uplink: 699-716MHz Downlink: 729-746MHz B13 Uplink: 777-787MHz Downlink: 746-756MHz B14 Uplink: 788-798MHz Downlink: 758-768MHz B17 Uplink: 699-716MHz Downlink: 729-746MHz B18 Uplink: 815-830MHz Downlink: 860-875MHz B19 Uplink: 830-845MHz Downlink: 875-890MHz B20 Uplink: 832-862 MHz	23 ±2 dBm

	Downlink: 791-821 MHz B25 Uplink: 1850-1915 MHz Downlink: 1930-1995 MHz B26 Uplink: 814-849 MHz Downlink: 859-894 MHz B28 Uplink: 703-748 MHz Downlink: 758-803 MHz B29 Downlink: 711-728 MHz B30 Uplink: 2305-2315 MHz Downlink: 2350-2360 MHz B32 Downlink: 1452-1496 MHz B48 Uplink: 3550-3700MHz Downlink: 3550-3700MHz B66 Uplink: 1710-1780MHz Downlink: 2110-2200MHz B71 Uplink: 663-698MHz Downlink: 617-652MHz B75 Downlink: 1432-1517MHz B76 Downlink: 1427-1432MHz	
LTE HPUE Bands (B38/B41/B42/B43)	B38 Uplink: 2570-2620MHz Downlink:2570-2620MHz B41 Uplink: 2496-2690MHz Downlink: 2496-2690MHz B42 Uplink: 3400-3600MHz Downlink: 3400-3600MHz B43 Uplink: 3600-3800MHz Downlink: 3600-3800MHz	26±2 dBm
WCDMA BANDs	B1 Uplink: 1920-1980 MHz Downlink: 2110-2170 MHz B2 Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz B4 Uplink: 1710-1755 MHz Downlink: 2110-2155 MHz B5 Uplink: 824-849 MHz Downlink: 869-894 MHz B8 Uplink: 880-915 MHz Downlink: 925-960 MHz B19 Uplink: 830-845MHz Downlink: 875-890MHz	24+1/-3 dBm

(2) DoC Information

You can get the DoC information of this product from the following URL:http://www.amitwireless.com/products-doc/

(3) RF Exposure Statements

To comply with RF exposure limits established in FCC, the distance between the antenna or antennas and the user should not be less than 20 cm (7.87”).

(4) Unit Mounting Notice

The product is suitable for mounting at heights <= 2m (approx. 6 ft), or in a cabinet.
Ensure the unit is fixed tightly to reduce the likelihood of injury due to exposure to mechanical hazards if dropped.

(5) Manufacture Information

Manufacture Name: AMIT Wireless Inc.
Manufacture Address: No. 28, Lane 31, Sec. 1, Huandong Rd., Sinshih Dist., Tainan 74146, Taiwan

1.6 Hardware Installation

This chapter describes how to install and configure the hardware

1.6.1 Mount the Unit

The IDG450 series can be placed on a desktop, or use extender to place on DIN-Rail bracket or mount on the wall.

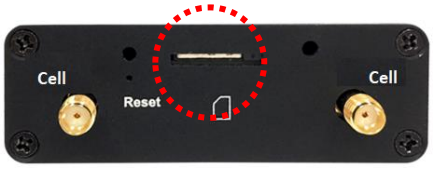
1.6.2 Insert the SIM Card

WARNING: BEFORE INSERTING OR CHANGING THE SIM CARD, PLEASE MAKE SURE THAT POWER OF THE DEVICE IS SWITCHED OFF.

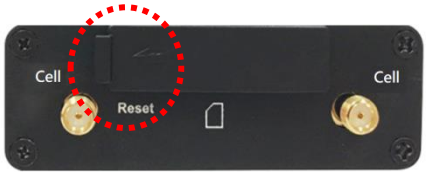
SIM card slot is located in the middlearea of IDG450 series. You need to remove the outer SIM card cover before installing or removing aninserted SIM card. Please follow below instructions to installor removea SIM card. After SIM card is well installed or removed, put back the outer SIM card cover.

Step 1: Remove SIM cover
Remove the SIM cover from left side.

Step 3: Insert a SIM
Push the SIM card into the SIM slot.



Step 4: Put Back SIM cover
Put back the SIM cover



1.6.3 Connecting to the Network or a Host

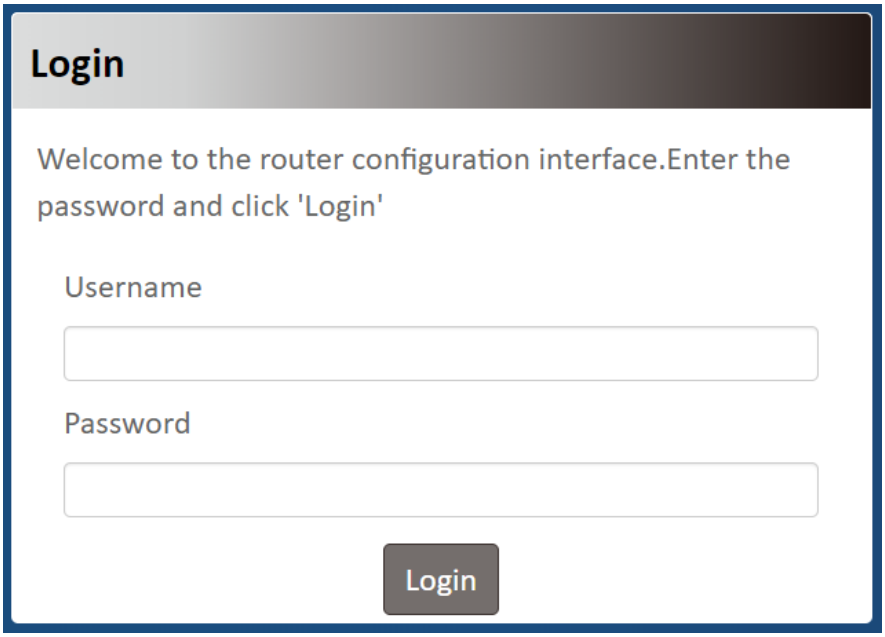
The IDG450 series provides one RJ45 port to connect to 10/100/1000/2500Mbps Ethernet. It can auto detect the transmission speed on the network and configure itself automatically. Connect one Ethernet cable to the RJ45 port (LAN) of the device and plug another end of the Ethernet cable into your computer's network port to connect this device to the host PC for device configuration.

1.6.4 Setup by Configuring WEB UI

You can browse web UI to configure the device.

Type in the IP Address (**http://192.168.123.254**)[3]

When you see the login page, enter the user name and password and then click **'Login'** button.



The default setting for both username and password is **'admin'**[4].

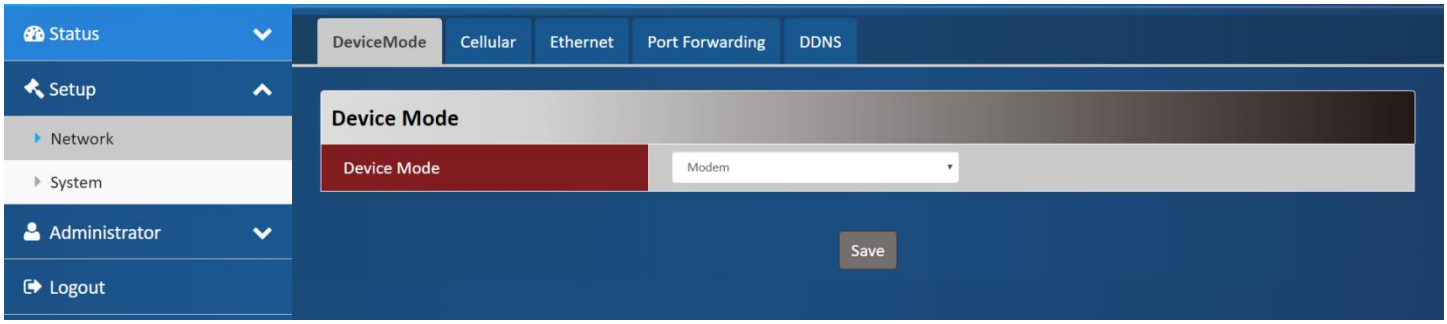
3 The default LAN IP address of this gateway is 192.168.123.254. If you change it, you need to login by using the new IP address.

4 For security concern, the login process will force user to change default password at the first time.

Chapter 2 Setup

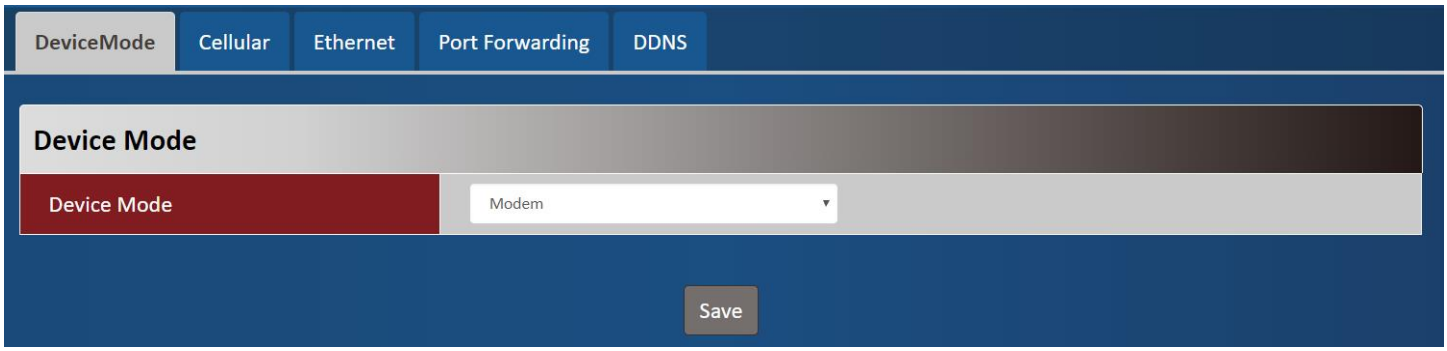
The IDG450 series connect to a machine via the Ethernet interface for 3G/4G/5G network connection. IDG450 series also provides another function with NAT router. It can make the network application more flexible.

2.1 Network



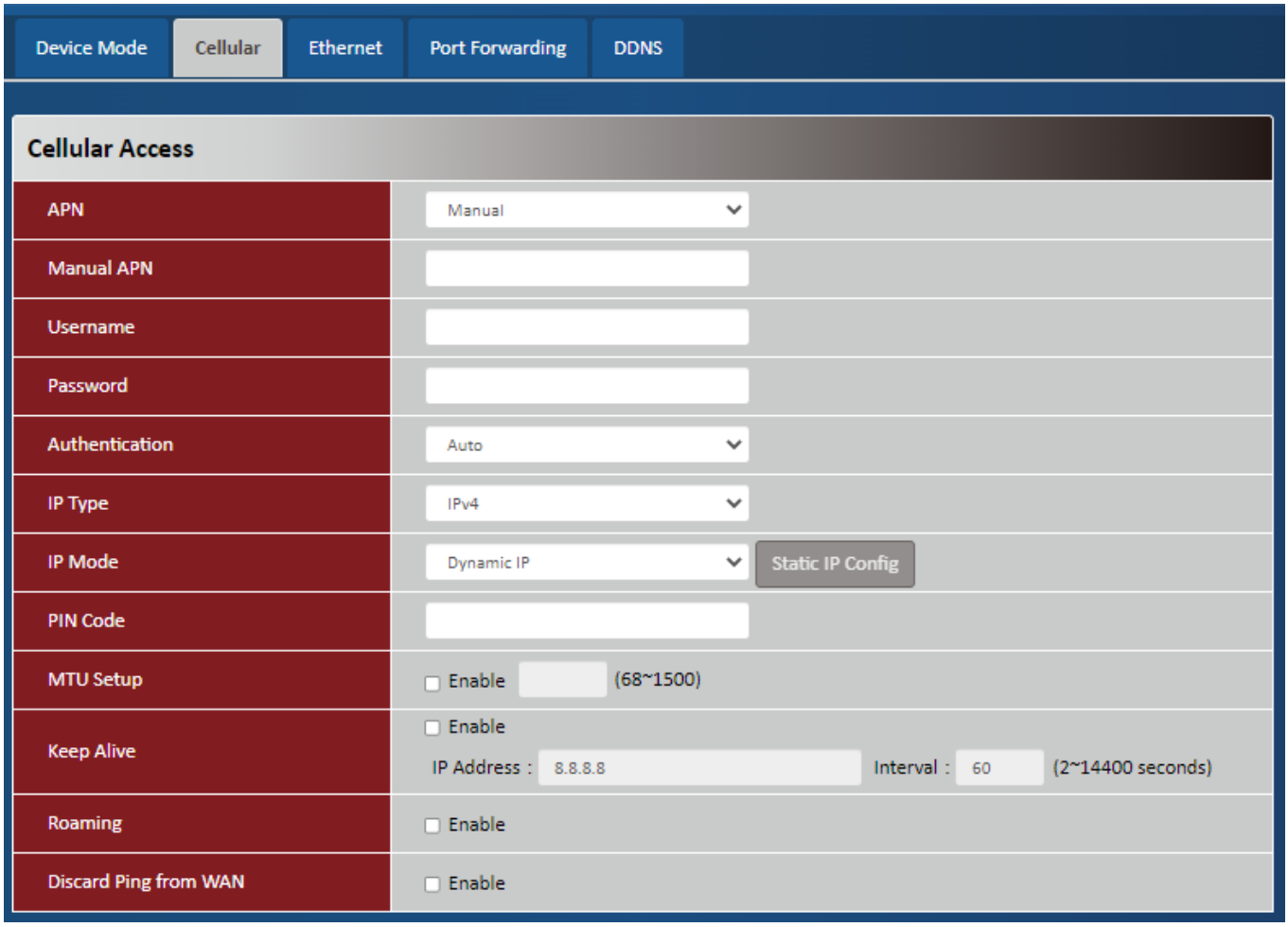
Network Page	
Item	**Description**
Device Mode	Set the unit operating mode
Cellular	Set the parameter for cellular network.
Ethernet	Set the IP of Ethernet and DHCP service
Port Forwarding	Enable specified port or protocol for service on connected device.
DDNS	Register a dynamic host name for the unit.

2.1.1 Device Mode



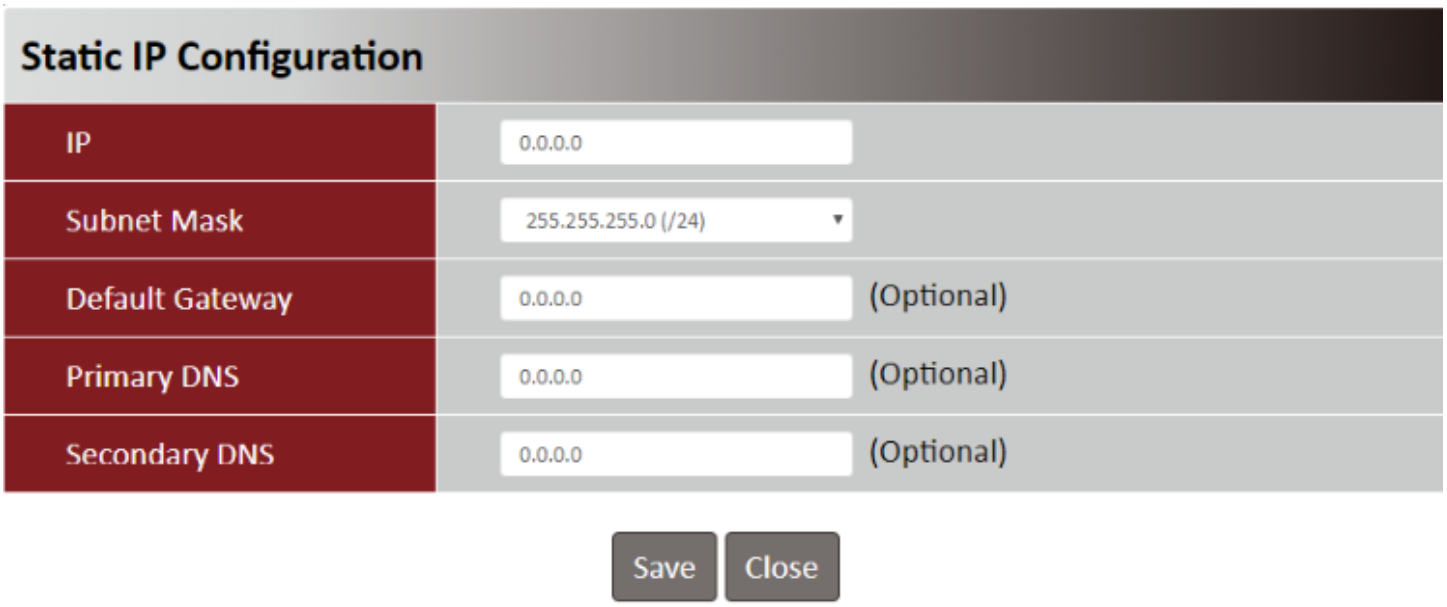
Device Mode		
Item	**Value setting**	**Description**
Device Mode	1. A Must filled setting 2. By default **NAT** is selected	**NAT** The unit will provide a NAT service and provide a simple firewall for the connected device. **Modem** The unit will pass the cellular IP to connected device via ethernnet

2.1.2 Cellular



Device Mode Item	Value setting	Description
APN	1. A Must filled setting 2. By default **Auto** is selected	**Auto** The unit will detect the SIM and set an APN from internal database. **Manual** User must set APN manually.
Manual APN	1. A Must filled setting 2. String format : any text	Enter the **APN** you want to use to establish the connection. This is a must-filled setting if you selected **Manual APN** as APN scheme.
Username	1. An Optional setting 2. String format : any text	Enter the optional **username** settings if your ISP provided such settings to you.
Password	1. An Optional setting 2. String format : any text	Enter the optional **Password** settings if your ISP provided such settings to you.
Authentication	1. A Must filled setting 2. By default **Auto** is selected	Select **PAP** (Password Authentication Protocol) and use such protocol to be authenticated with the carrier's server. Select **CHAP** (Challenge Handshake Authentication Protocol) and use such

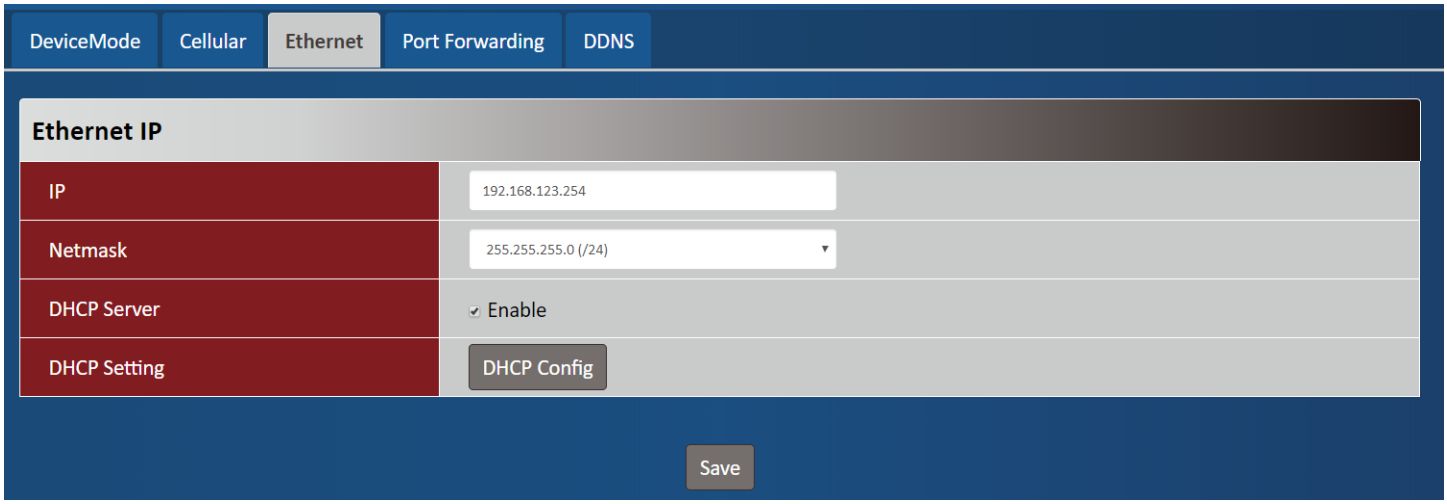
		protocol to be authenticated with the carrier's server. When **Auto** is selected, it means it will authenticate with the server either **PAP** or **CHAP**.
IP Type	1. A Must filled setting 2. By default **IPv4** is selected	Specify the IP type of the network service provided by your 3G/4G network. It can be **IPv4**, **IPv6**, or **IPv4v6**.
IP Mode	1. A Must filled setting 2. By default **Dynamic IP** is selected	**Dynamic IP** The unit will get IP from cellular service.. **Static IP** The unit will set IP according **Static IP Config.**
PIN Code	1. An Optionalsetting 2. String format : interger	Enter the PIN (Personal Identification Number) code if it needs to unlock your SIM card.
MTU Setup	1. AnOptional setting 2. **Uncheck** by default	Check the Enable box to enable the MTU (Maximum Transmission Unit) limit, and specify the **MTU** for the 3G/4G connection. **MTU** refers to Maximum Transmission Unit. It specifies the largest packet size permitted for Internet transmission. ***Value Range*: 68 ~ 1500.**
Keep Alive	1. An optional setting 2. Box is unchecked by default	Check the **Enable** box to activate the keep alive function. Input **IP Address** and **interval** to send an ICMP packet to check the network status.
Roaming	1. AnOptional setting 2. **Uncheck** by default	Check the checkbox to enable the modem to connect on the cellular network at roaming state.
Discard Ping from WAN	1. AnOptional setting 2. **Uncheck** by default	The modem will not respond the ICMP request packet from remote hosts when the checkbox is checked.



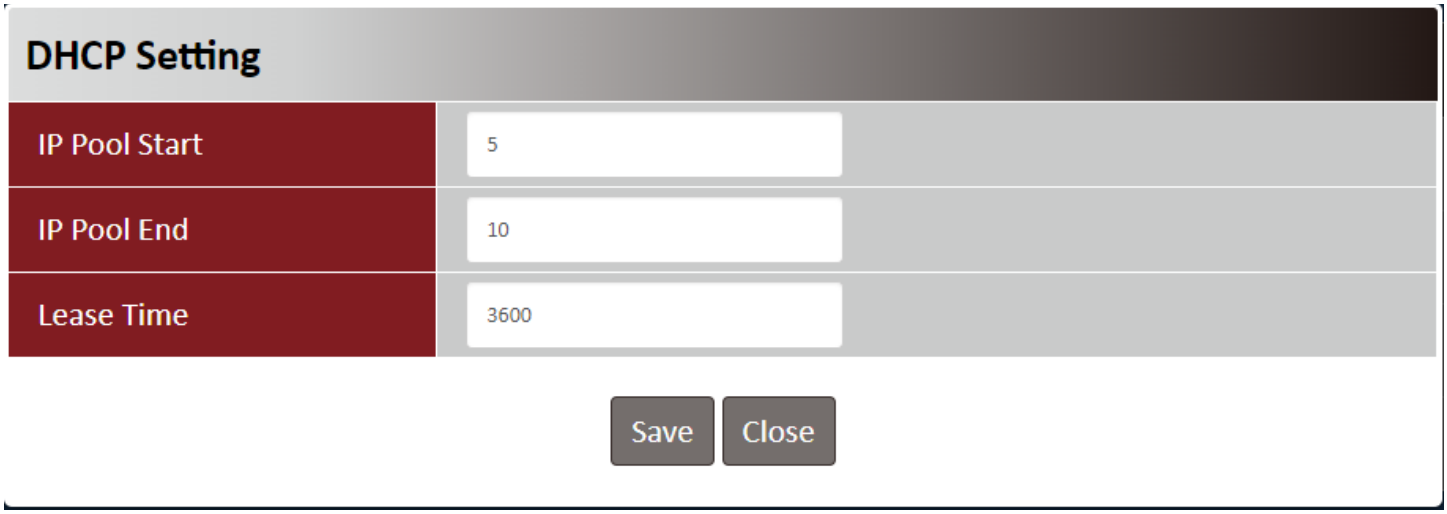
Static IP Configuration Item	Value setting	Description
IP	1. IPv4 format. 2. A Must filled setting	The Static IP Address setting of this unit.
Subnet Mask	255.255.255.0 (/24) is set by default	The Subnet Mask of this configed static IP.

Default Gateway	1. IPv4 format. 2. AnOptional setting	Thegateway setting ofthis configed static IP.
Primary DNS	1. IPv4 format. 2. AnOptional setting	Assigned DNS server of this configed static IP.
Secondary DNS	1. IPv4 format. 2. AnOptional setting	Assigned DNS server of this configed static IP.

2.1.3 Ethernet

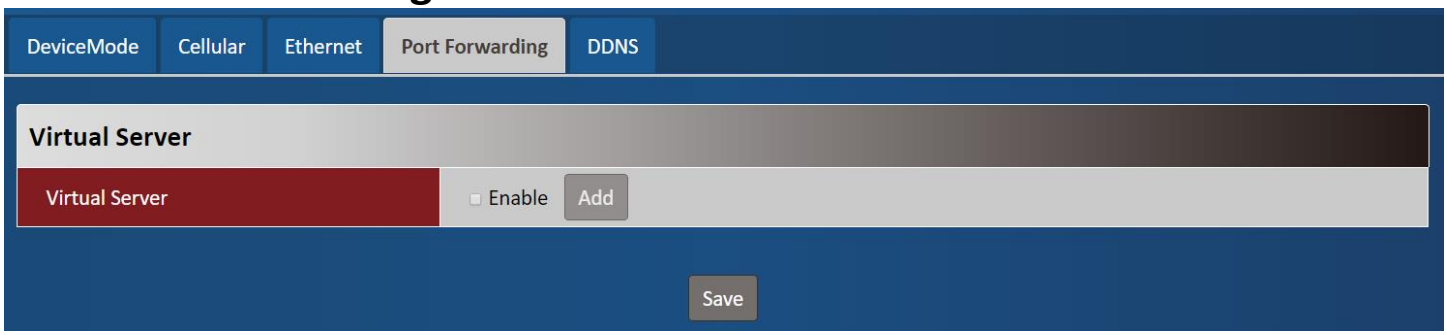


Ethernet IP Item	Value setting	Description
IP	1. IPv4 format. 2. A Must filled setting	The LAN IP Address of this unit.
Netmask	255.255.255.0 (/24) is set by default	The Subnet Mask of this unit.
DHCP Server	The box is checked by default.	Click **Enable**box to activate DHCP Server.
DHCP Setting	N/A	Click **DHCP Config**button to pop-up the **DHCP Setting** page.

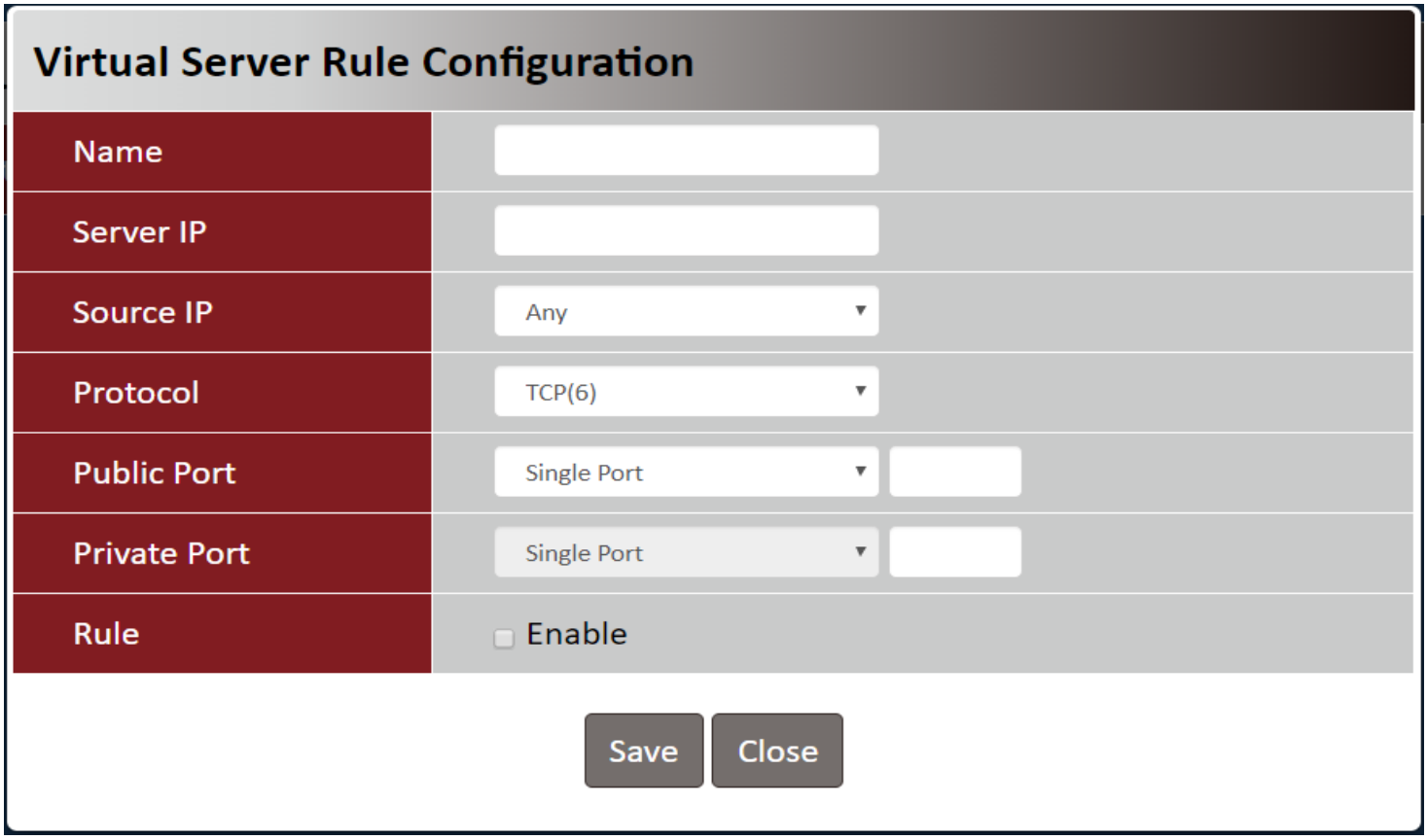


DHCP Setting Item	Value setting	Description
IP Pool Start	1. Numberic string format. 2. A Must filled setting	The IP Pool of this DHCP Server. It is Starting Address entered in this field.
IP Pool End	1. Numberic string format. 2. A Must filled setting	The IP Pool of this DHCP Server. It is Ending Address entered in this field.
Lease Time	1. Numberic string format. 2. A Must filled setting	The Lease Time of this DHCP Server. ***Value Range***: 300 ~ 604800 seconds.

2.1.4 Port Forwarding



Virtual Server Item	Value setting	Description
Virtual Server	The box is unchecked by default	Check the **Enable** box to activate this port forwarding function Click **Add**will pop-up **Virtual Server Rule Configuration** page.

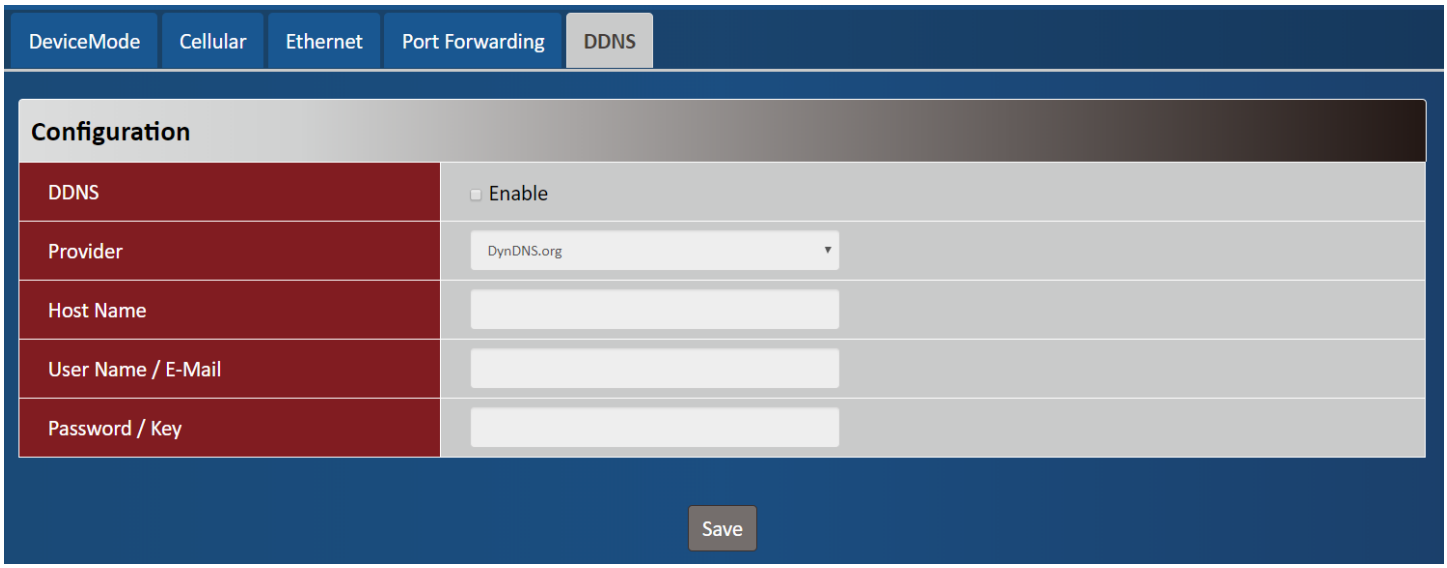


Virtual Server Rule Configuration		
Item	**Value setting**	**Description**
Name	1. String format can be any text 2. A Must filled setting	The name of current rule
Server IP	A Must filled setting	This field is to specify the IP address of the interface selected in the WAN Interface setting above.
Source IP	1. A Must filled setting 2. By default **Any** is selected	This field is to specify the **Source IP address**. Select **Any** to allow the access coming from any IP addresses. Select **Specific IP Address** to allow the access coming from an IP address. Select **IP Range** to allow the access coming from a specified range of IP address.
Protocol	A Must filled settin	When **"TCP(6)"** is selected It means the option "Protocol" of packet filter rule is TCP. **Public Port** selected a predefined port from **Well-known Service**, and **Private Port** is the same with **Public Port** number. **Public Port** is selected **Single Port** and specify a port number, and **Private Port** can be set a **Single Port** number. **Public Port** is selected **Port Range** and specify a port range, and **Private Port** can be selected **Single Port** or **Port Range**. *Value Range*:1 ~ 65535 for Public Port, Private Port. When **"UDP(17)"** is selected

		It means the option “Protocol” of packet filter rule is UDP. **Public Port** selected a predefined port from **Well-known Service**, and **Private Port** is the same with **Public Port** number. **Public Port** is selected **Single Port** and specify a port number, and **Private Port** can be set a **Single Port** number. **Public Port** is selected **Port Range** and specify a port range, and **Private Port** can be selected **Single Port** or **Port Range**. *Value Range*:1 ~ 65535 for Public Port, Private Port. When **“TCP(6)& UDP(17)”** is selected It means the option “Protocol” of packet filter rule is TCP and UDP. **Public Port** selected a predefined port from **Well-known Service**, and **Private Port** is the same with **Public Port** number. **Public Port** is selected **Single Port** and specify a port number, and **Private Port** can be set a **Single Port** number. **Public Port** is selected **Port Range** and specify a port range, and **Private Port** can be selected **Single Port** or **Port Range**. *Value Range*:1 ~ 65535 for Public Port, Private Port. When **“User-defined”** is selected It means the option “Protocol” of packet filter rule is User-defined. For **Protocol Number**, enter a port number.
Rule	1. Anoptional filled setting 2.The box isunchecked by default.	Check the Enable box to activate the rule.

Virtual Server – Rule Name		
Item	**Value setting**	**Description**
Rule name	N/A	Clicl“**Edit**”button to pop-up **Virtual Server Rule Configuration** page to edit the rule. Click “**Delete**” button to delete this rule

2.1.5 DDNS

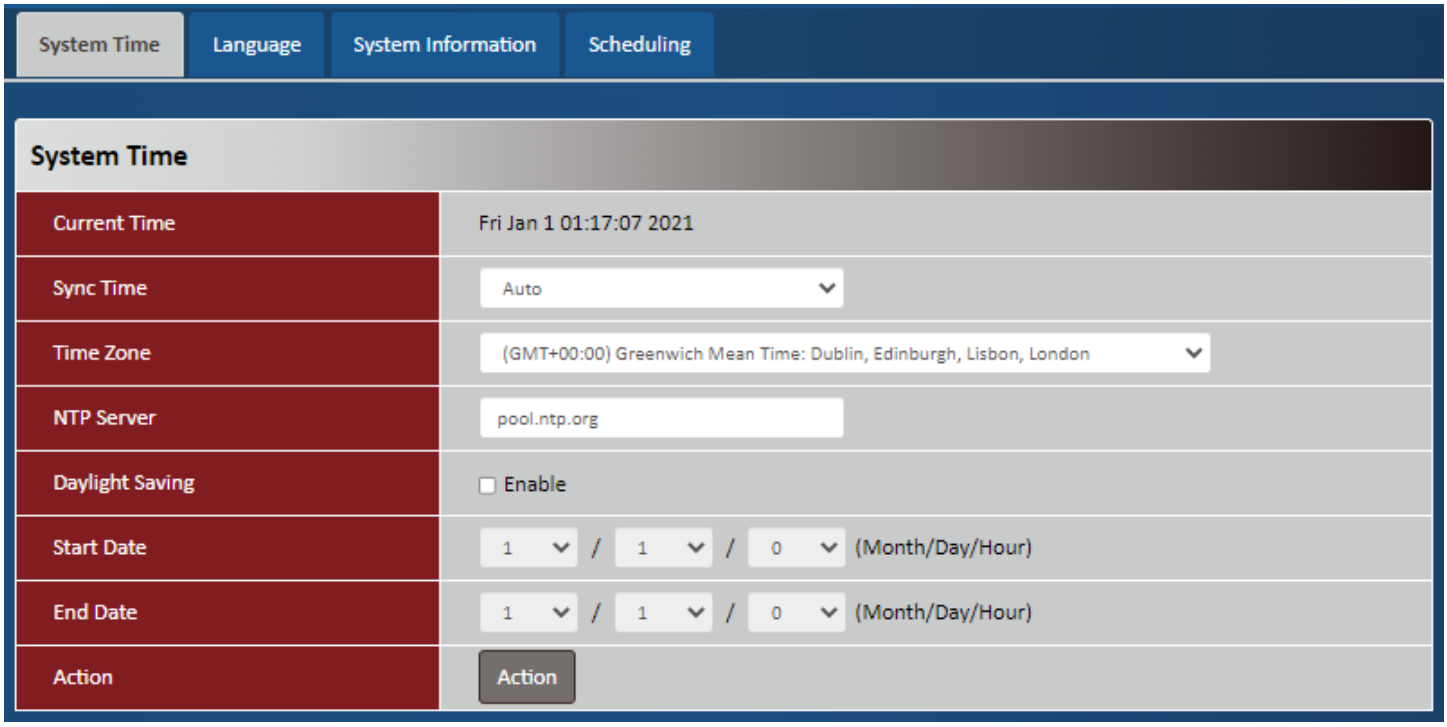


DDNS Item	Value setting	Description
DDNS	The box is unchecked by default	Check the **Enable** box to activate this function.
Provider	**DynDNS.org** is set by default	Select your DDNS provider of Dynamic DNS. It can be **DynDNS.org**, **NO-IP.com**,**TZO.com** etc...
Host Name	1. String format can be any text 2. A Must filled setting	Your registered host name of DDNS Service. ***Value Range***:0 ~ 63 characters.
User Name / E-Mail	1. String format can be any text 2. A Must filled setting	Enter your User name or E-mail addresss ofDDNS Service.
Password / Key	1. String format can be any text 2. A Must filled setting	Enter your Password or Key ofDDNS Service.

2.2 System

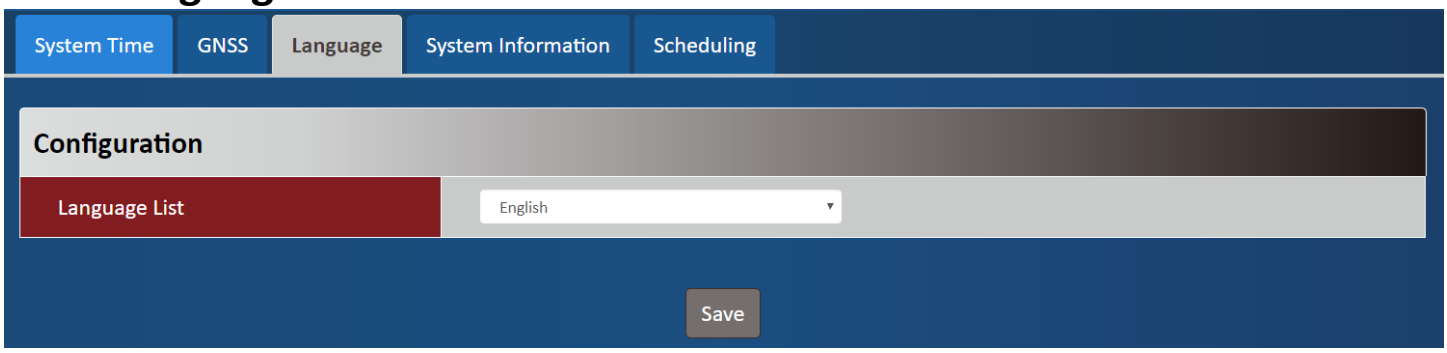
This section provides the configuration of system features.

2.2.1 System Time



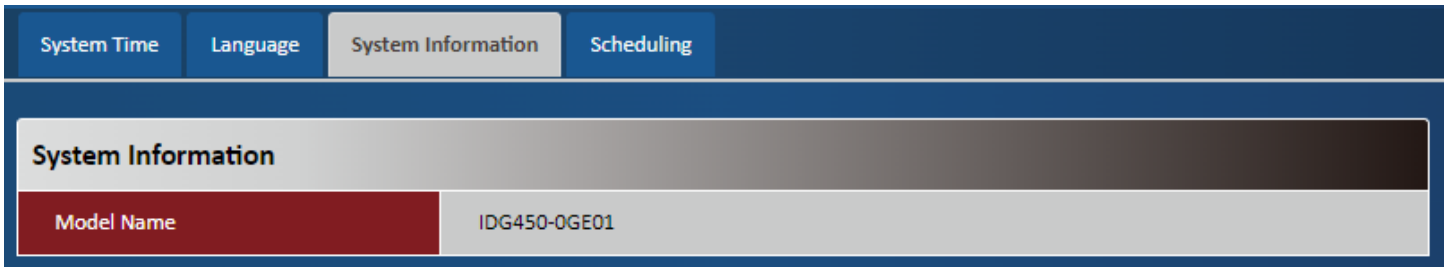
Device Mode Item	Value setting	Description
Current Time	N/A	Show the current time of the unit.
Sync Time	1. A Must-filled item. 2. **Atuo** is selected by default.	When select **Auto**, unit will sync the time via cellular cell,and then try to use NTP if cellular cell doesn't provide time information. When select **NTP**, the unit will sync time via ntp service.
Time Zone	1. A Must-filled item. 2. **GMT+00 :00** is selected by default.	Select a time zone where this device locates.
NTP Server	1. A Must-filled item.	Indicate which NTP server will be used of the time synchronization.
Daylight Saving	1. It is an optional item. 2. Un-checked by default	Check the **Enable** button to activate the daylight saving function. When user enabled this function, user has to specify the **Start Date** and **End Date** for the daylight saving time duration.
Start Date	N/A	Start time for Daylight Saving.
End Date	N/A	End Time of Daylight Saving.
Action	N/A	Click **Action** to sync time immediately

2.2.2 Language



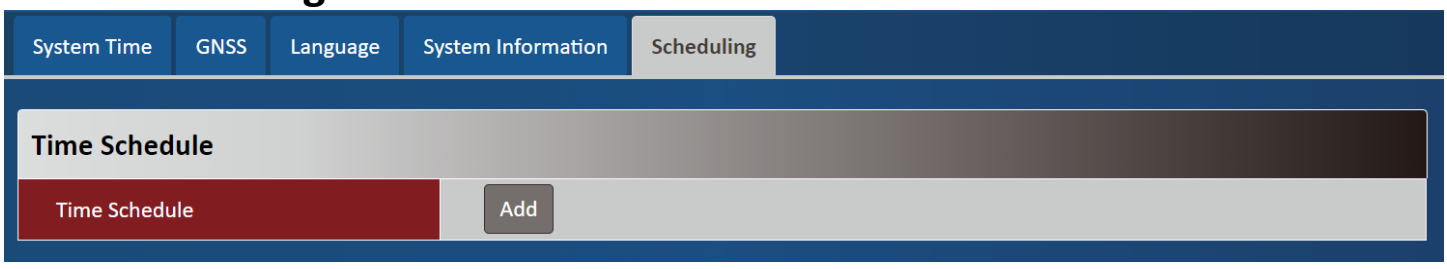
Language		
Item	**Value setting**	**Description**
Language List	1. A Must-filled item. **2. English** is selected by default.	Language setiing of the WebGUI.

2.2.3 System Information



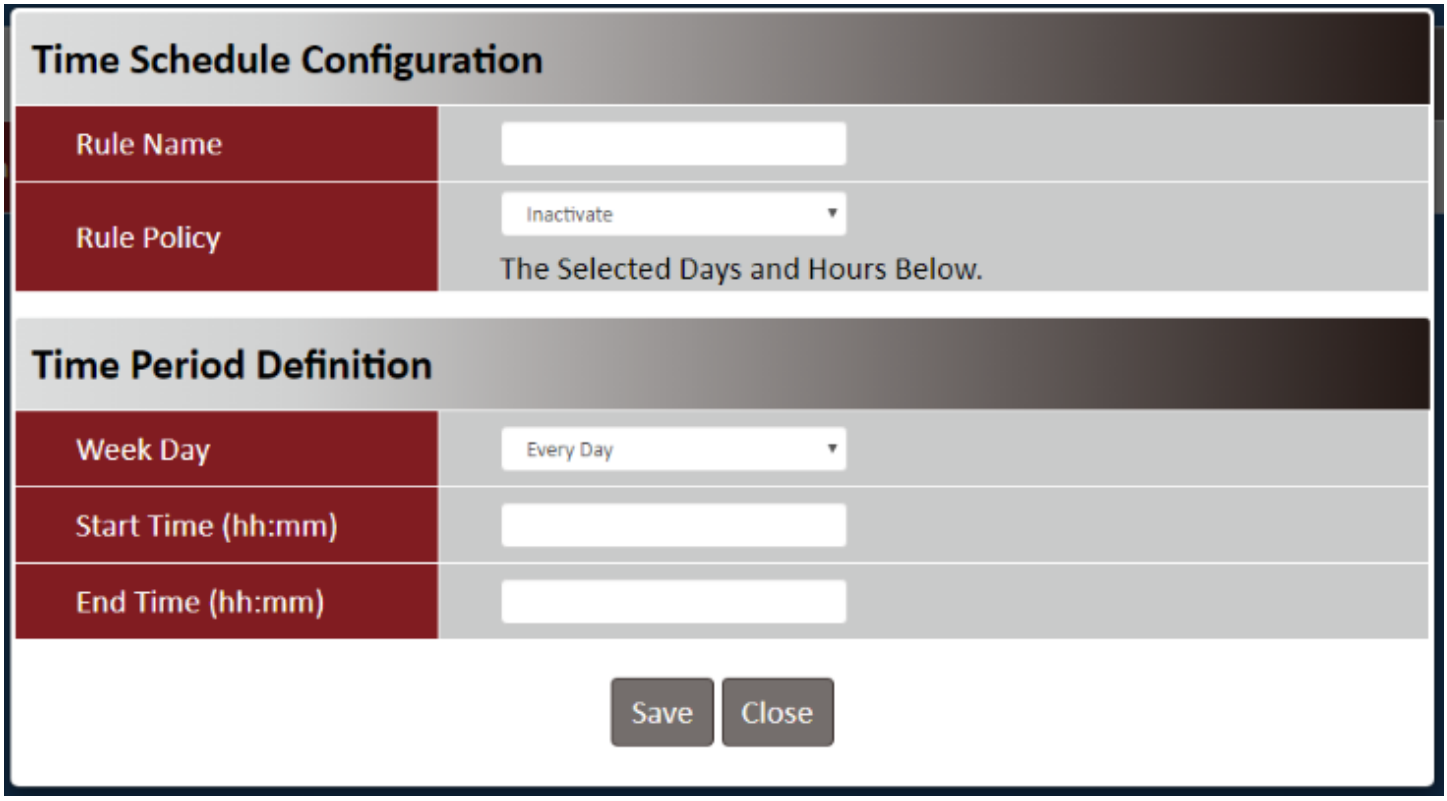
System Information		
Item	**Value setting**	**Description**
Model Name	N/A	Show the model name of the device

2.2.4 Scheduling



Scheduling		
Item	**Value setting**	**Description**

Time Schedule	N/A	Press **Add** to create a schedule rule for system.



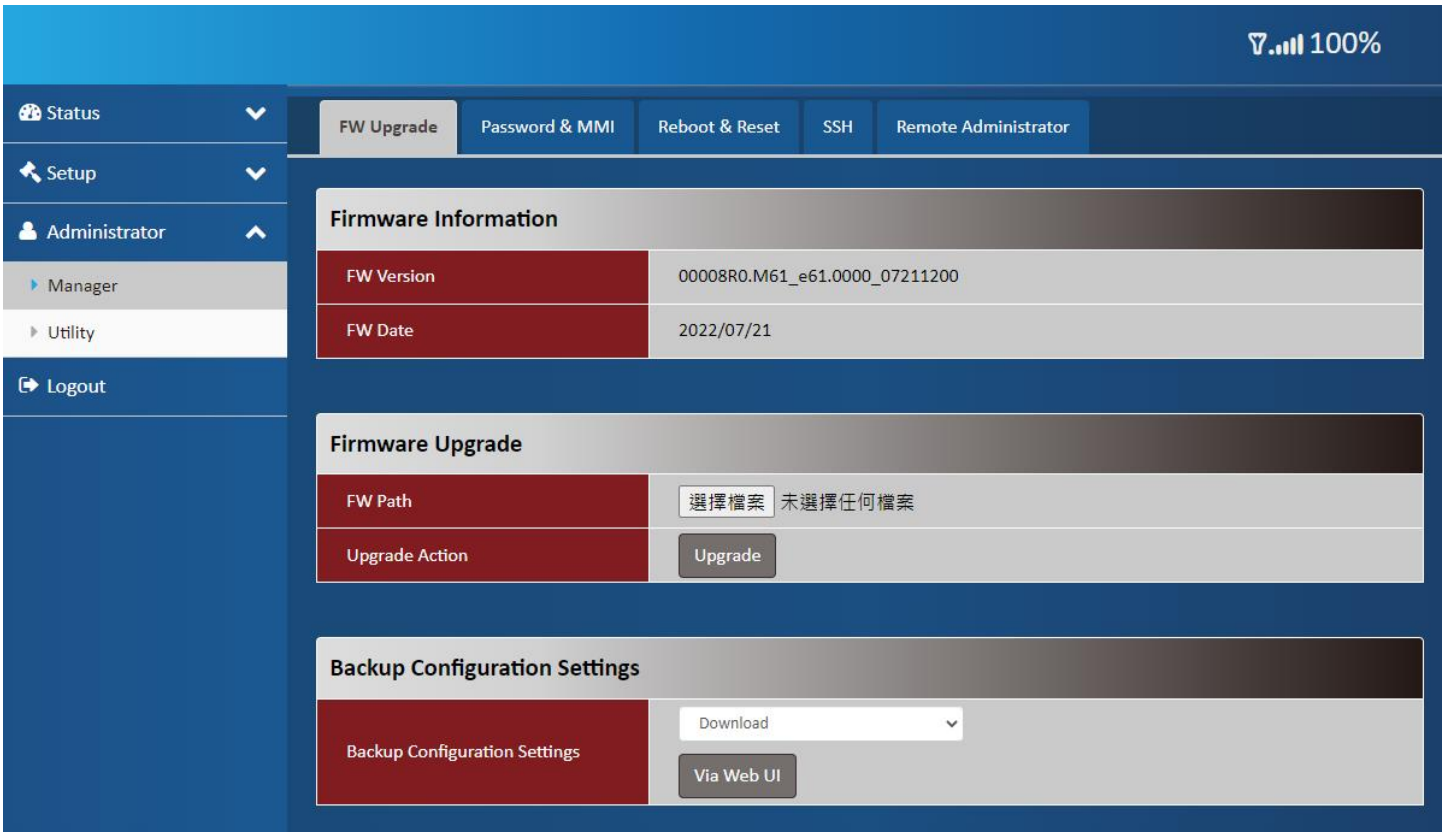
Time Schedule Configuration		
Item	**Value Setting**	**Description**
Rule Name	String: any text	Set rule name
Rule Policy	Default Inactivate	Inactivate/activate the function been applied to in the time period below

Time Period Definition		
Item	**Value Setting**	**Description**
Week Day	Select from menu	Select everyday or one of weekday
Start Time	Time format (hh :mm)	Start time in selected weekday
End Time	Time format (hh :mm)	End time in selected weekday

Chapter 3 Administrator

3.1 Manager

3.1.1 FW Upgrade

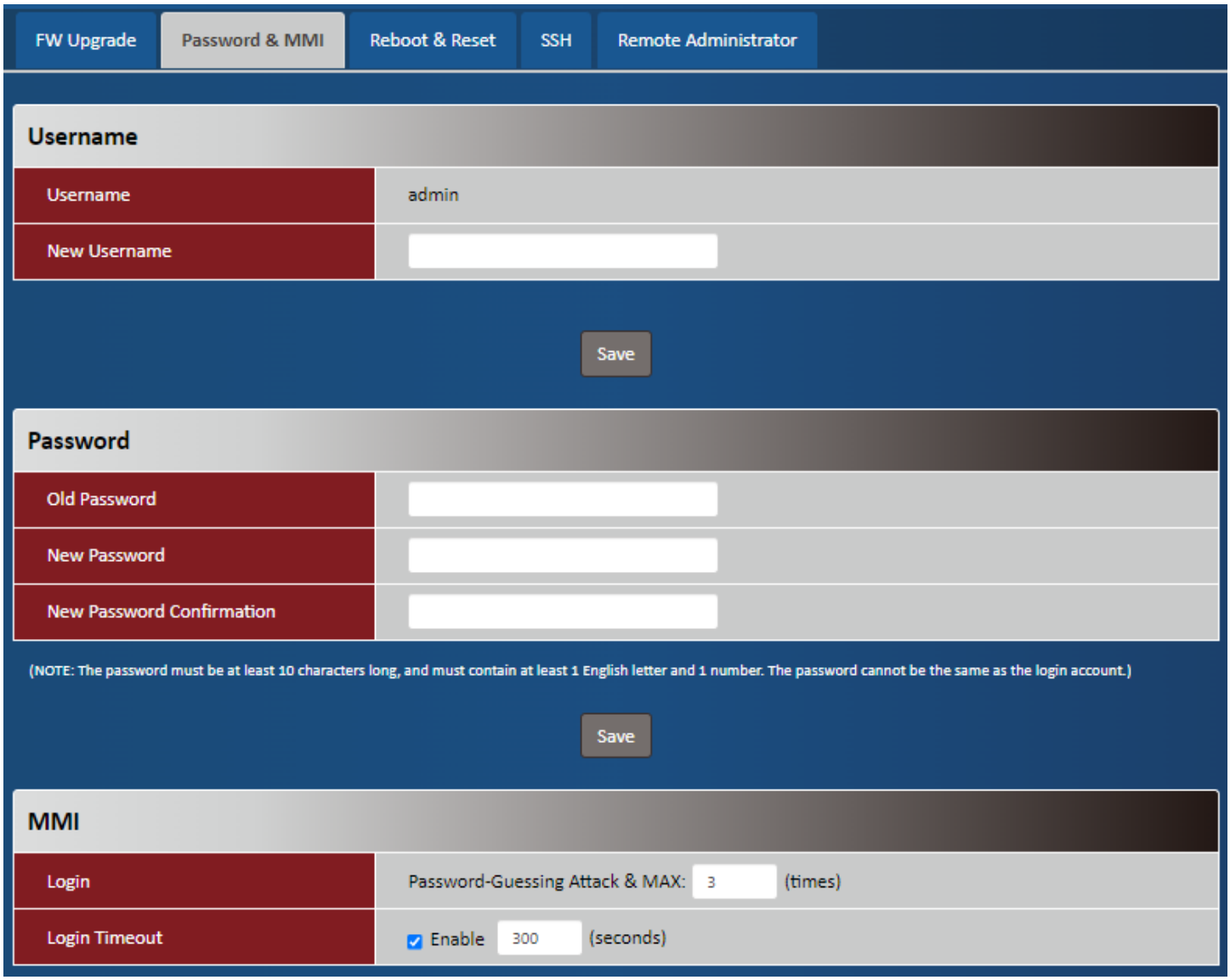


Firmware Information		
Item	**Value setting**	**Description**
FW Version	N/A	It displays the firmware version of the product
FW Date	N/A	It displays the build time of the firmware

Firmware Upgrade		
Item	**Value setting**	**Description**
FW Path	N/A	Select firmware file to be upgraded
Upgrade Action	N/A	Click **Upgrade** button to start upgrade process with selected FW

Backup Configuration Settings		
Item	**Value setting**	**Description**
Backup Configuration Settings	N/A	Select "**Download**" to backup current configuration to a file. Select "**Upload**" to restore configuration from selected file.

3.1.2 Password & MMI



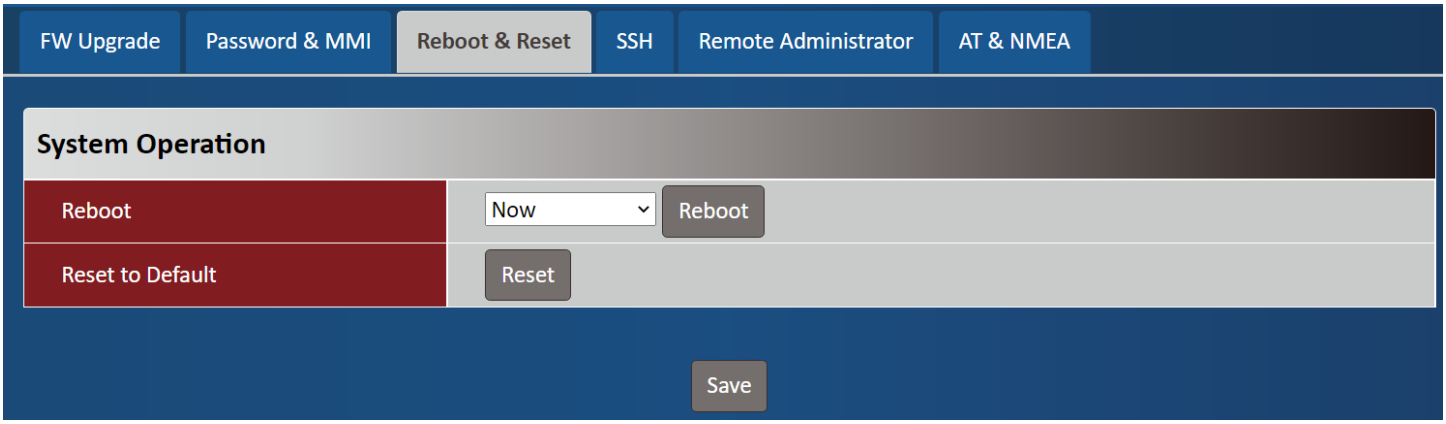
Username Item	Value setting	Description
Username	1. The default username is 'admin'.	Display the current username for the administrator
New Username	String: any text	Enter the new username
Save	N/A	Click **Save** button to save the settings

Password

Item	Value setting	Description
Old Password	1. String: any text **2. The default password for web-based MMI is 'admin'.**	Enter the current password to enable you unlock to change password.
New Password	String: any text	Enter new password
New Password Confirmation	String: any text	Enter new password again to confirm
Save	N/A	Click **Save** button to save the settings

MMI Item	Value setting	Description
Login	3 times is set by default	Enter the login trial counting value. ***Value Range***: 3 ~ 10. If someone tried to login the web GUI with incorrect password for more than the counting value, an warning message "***Already reaching maximum Password-Guessing times, please wait a few seconds!***" will be displayed and ignore the following login trials.
Login Timeout	The Enable box is checked, and 300 is set by default.	Check the Enable box to activate the auto logout function, and specify the maximum idle time as well. ***Value Range***: 30 ~65535.

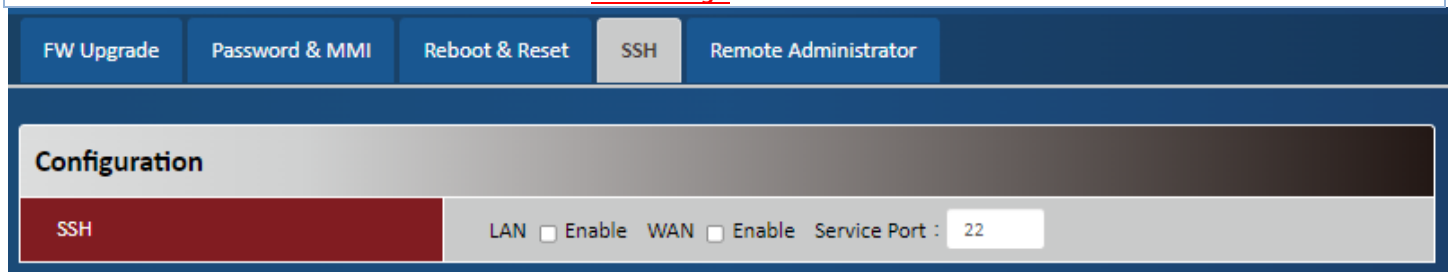
3.1.3 Reboot & Reset



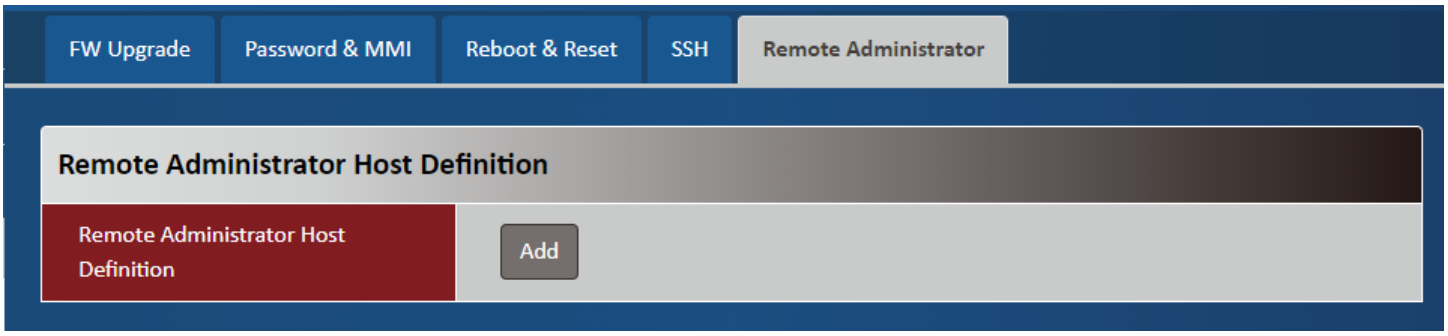
Device Mode Item	Value setting	Description
Reboot	N/A	Chick the **Reboot** button to reboot the unit immediately
Reset to Default	N/A	Click the **Reset** button to reset the device configuration to its default value.

3.1.4 SSH

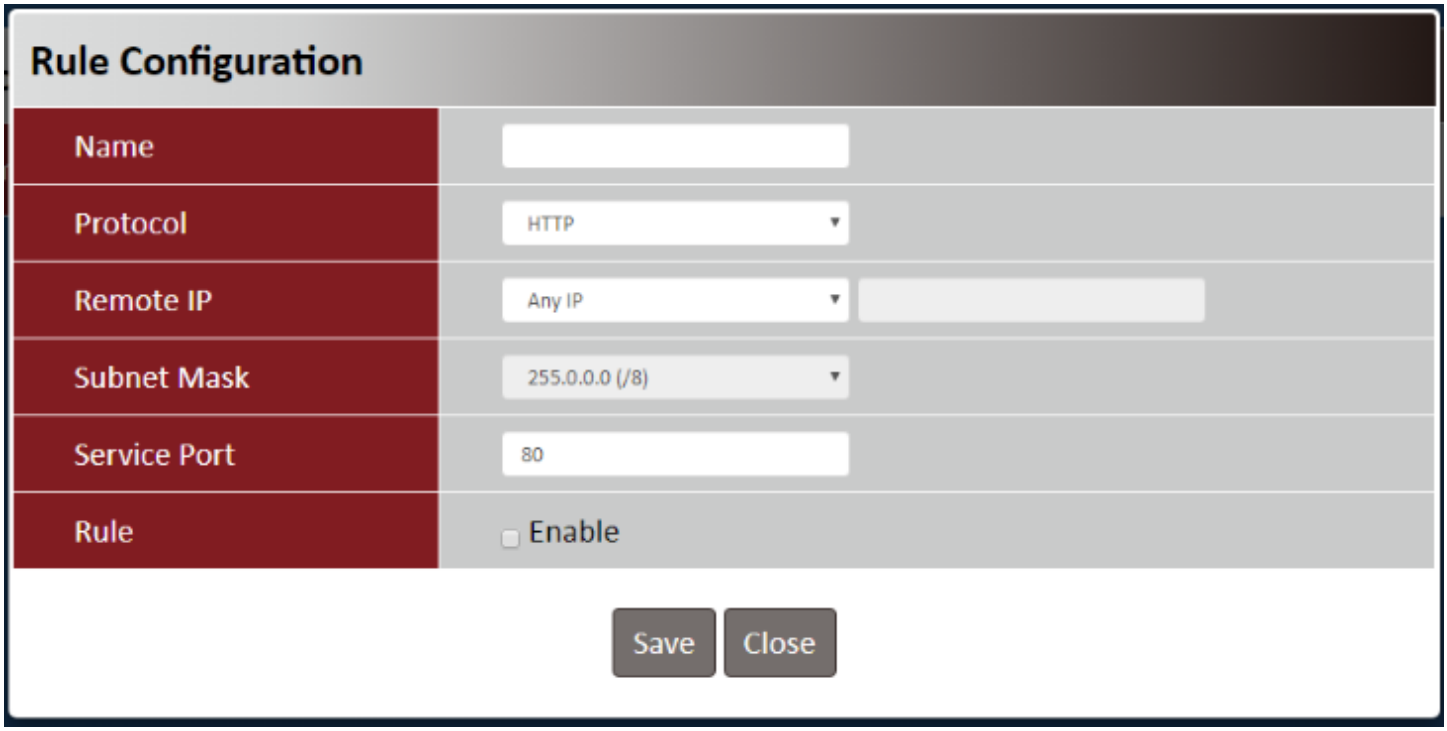
SSH		
Item	**Value setting**	**Description**
SSH	1. Default value is disable such service 1. By default **Service Port** is 22.	Check the **Enable** box to activate the SSH Telnet function for connecting from LAN or WAN interfaces. You can set which number of **Service Port** you want to provide for the corresponding service. ***Value Range***: 1 ~65535.



3.1.5 Remote Administrator



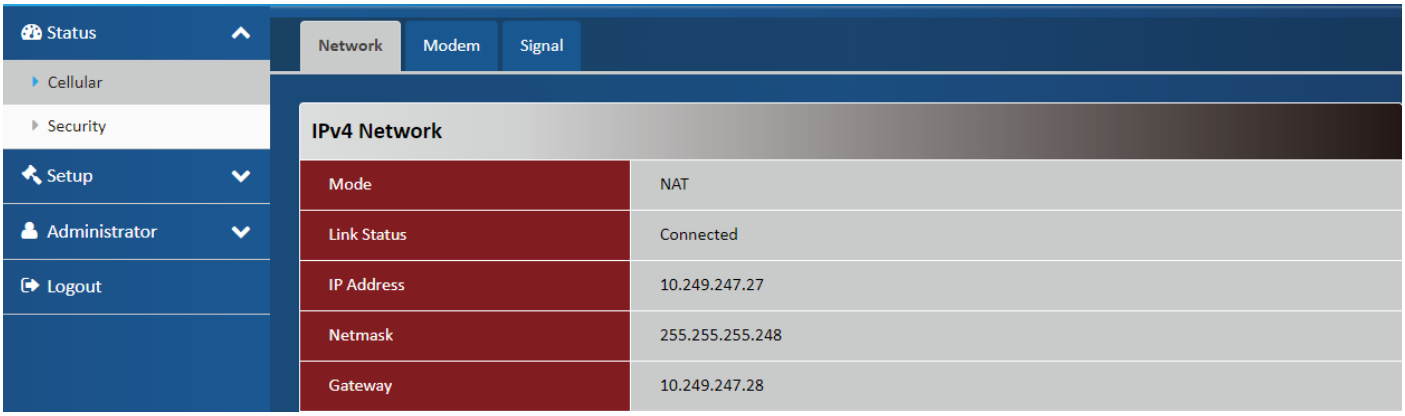
Remote Administrator Host Definition		
Item	**Value setting**	**Description**
Remote Administrator Host Definition	N/A	Press “Add” to set a remote administrator rule



Rule Configuration		
Item	**Value setting**	**Description**
Name	String: any text	Set rule name
Protocol	HTTP is set by default	Select **HTTP** or **HTTPS** method for router access.
Remote IP	A Must filled setting	This field is to specify the remote host to assign access right for remote access. Select **Any IP** to allow any remote hosts Select **Specific IP** to allow the remote host coming from a specific subnet.
Subnet Mask	N/A	An IP address entered in this field and a selected **Subnet Mask** to compose the subnet if Remote IP set in **Specific IP.**
Service Port	1. 80 for HTTP by default 2. 443 for HTTPS by default	This field is to specify a Service Port to HTTP or HTTPS connection. ***Value Range***:1 ~ 65535.
Rule	The box is unchecked by default.	Click **Enable** box to activate this rule.

Chapter 4 Status

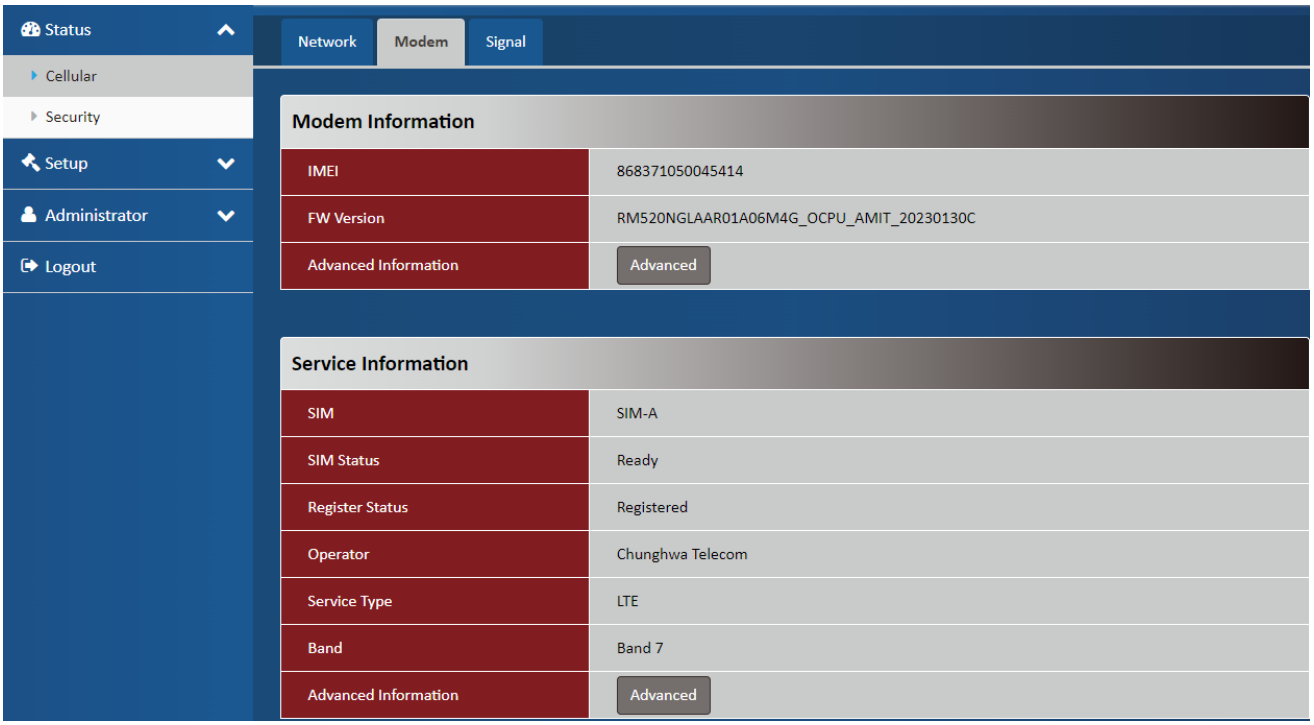
4.1 Cellular



4.1.1 Network

Network Page	
Item	**Description**
Mode	Network type NAT
Link Status	Display cellular network status connected or disconnected.
Ip address	Base station distribution network ip
Netmask	Display cellular network netmask
Gateway	Display cellular network gateway

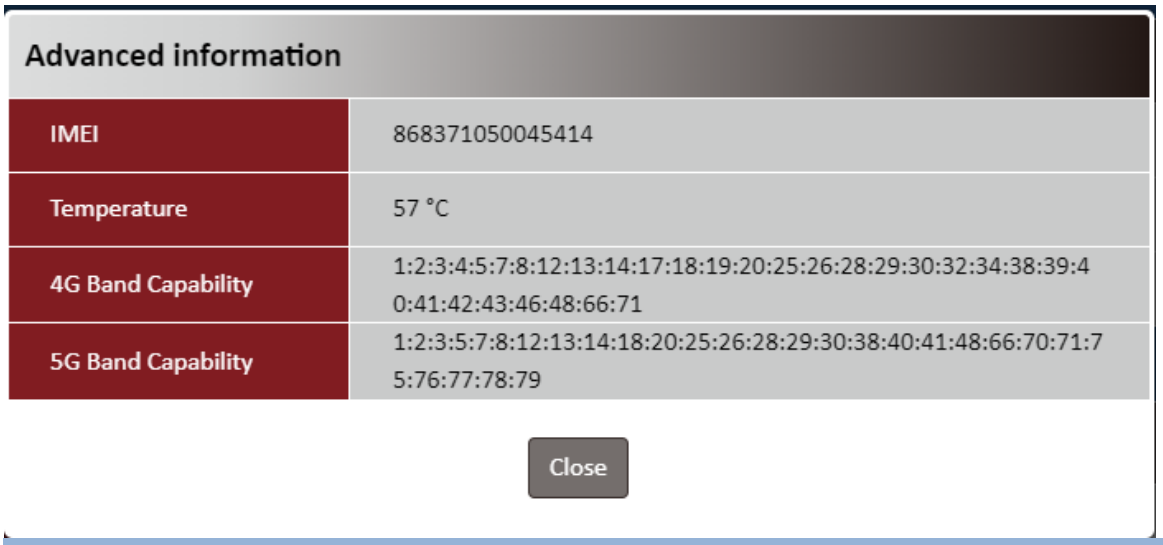
4.1.2 Modem



Modem information Page

5G Ethernet Modem

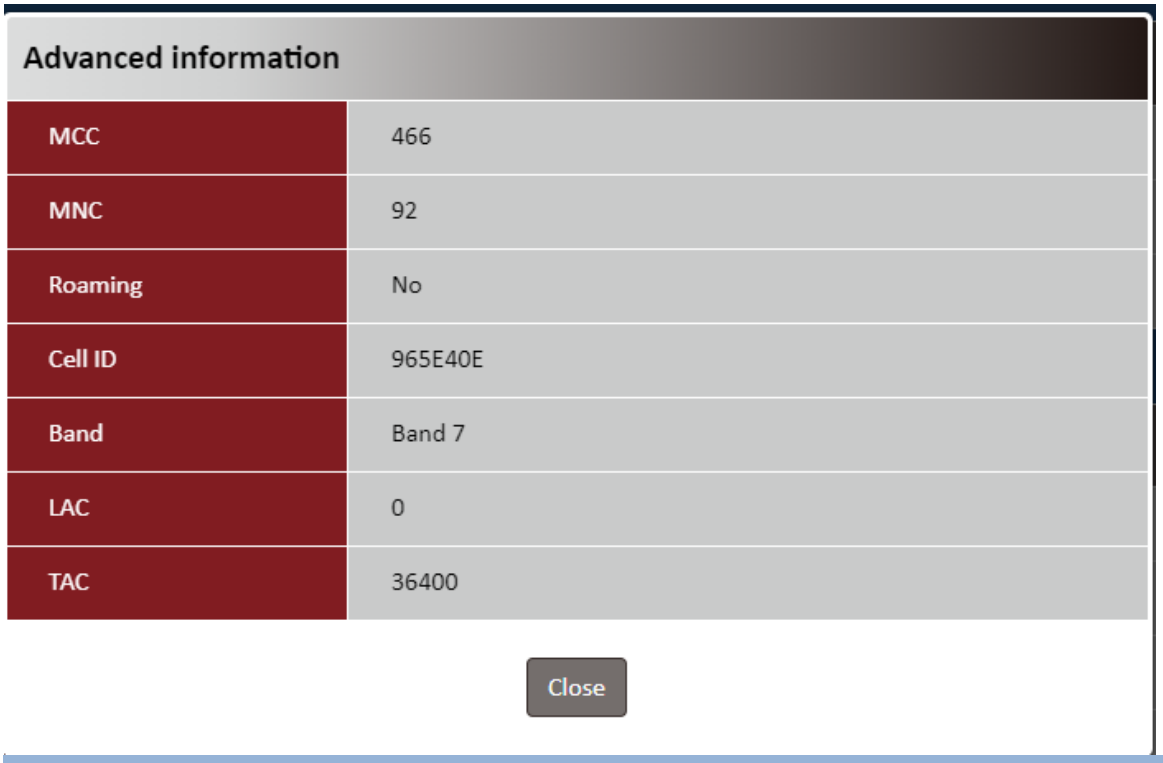
Item	Description
IMEI	Display modem IMEI information
FW version	Display modem fw version
Advanced Information	Clicl“**advanced**”button to show Advanced Information



Advanced Information Page Item	Description
IMEI	Display modem IMEI information
Temperature	Module temperature
4G Band capability	4G support band
5G Band capability	5G support band

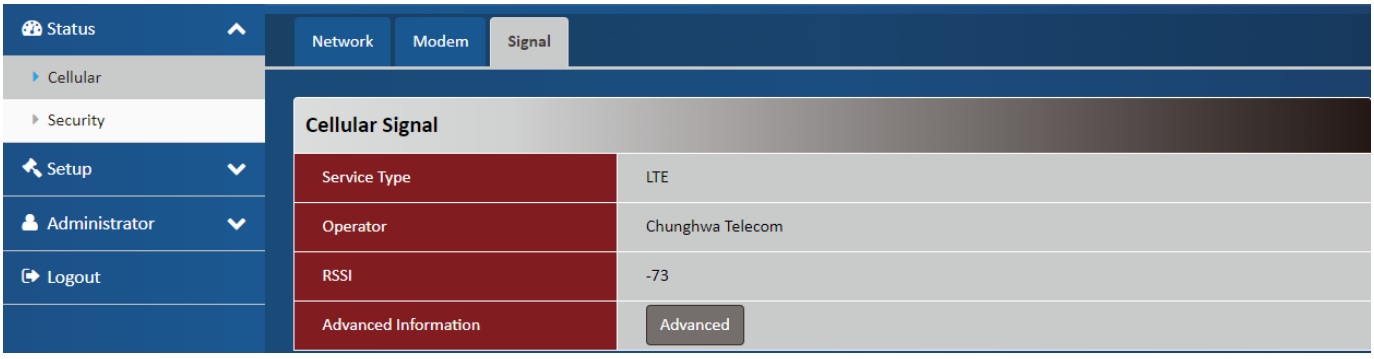
Service information Page Item	Description
Sim	Display card slot
Sim status	Display read sim status
Register status	Display base station registration status registered or not register
Operator	Operator name
Service type	Display LTE /5G

Band	Connected frequency band
Advanced Information	Clicl“**advanced**”button to show Advanced Information



Advanced Information Page	
Item	**Description**
MCC	Display modem IMEI information
MNC	Module temperature
Roaming	Roaming status no or roaming
Cell id	Cell id
Band	Connected frequency band
LAC	Location Area Code
TAC	Tracking Area Number

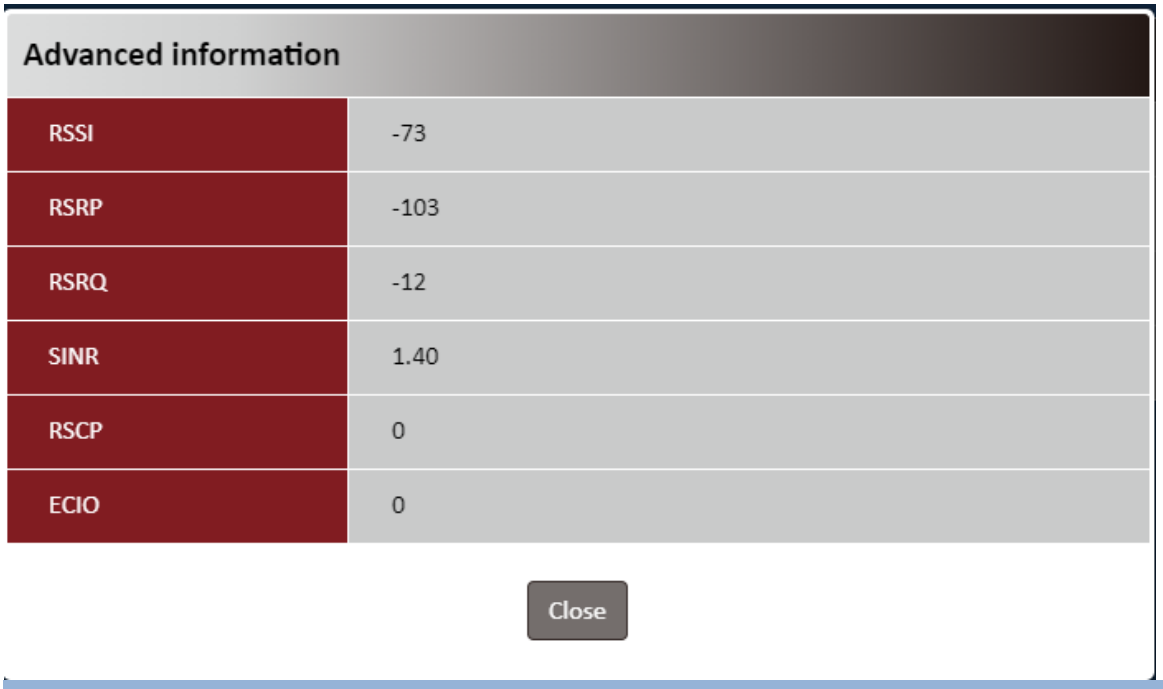
4.1.3 Signal



Cellular Signal Page	
Item	**Description**

5G Ethernet Modem

Service type	Cellular service type LTE /5G
Operator	Operator name
RSSI	Display Received Signal
Advanced Information	Clicl“**advanced**”button to show Advanced Information



Advanced Information Page	
Item	**Description**
RSSI	Display Received Signal
RSRP	Display Signal ReceivedPower
RSRQ	Display Signal ReceivedQuality
SINR	Display Interference Strength
RSCP	Display Signal ReceivedPower
ECIO	Display interference Ratio