

## **User Manual**

5G M2M Modem

DWM-311-G

# 5G M2M Modem

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## Chapter 1 Introduction

### 1.1 Introduction

Congratulations on your purchase of D-Link's 5G M2M modem. With this 5G M2M 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.

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## 1.2 Contents List

### 1.2.1 Package Contents

#### #Standard Package

Items	Description	Contents	Quantity
1	DWM-311-G 5G M2M Modem		1pc
2	Cellular Antenna		4pcs
3	RJ45 Cable		1pc
4	Power Adater (DC 12V/1A)		1pcs

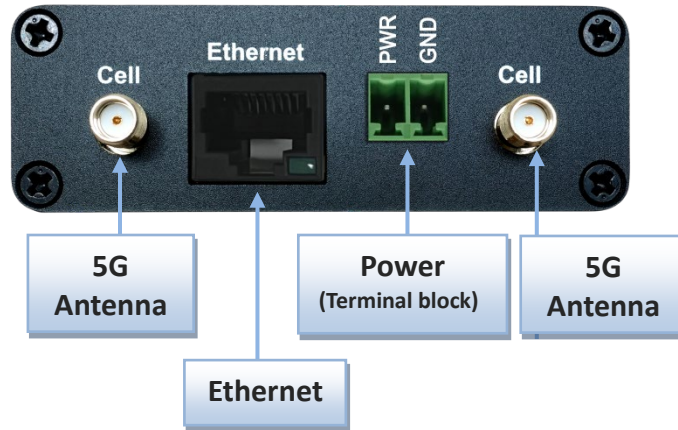
#### #Optional Package

Items	Description	Contents	Quantity
1	Wall mount kit	 left right	1 set
2	DIN rail kit		1 set (DIN rail: screw x3)

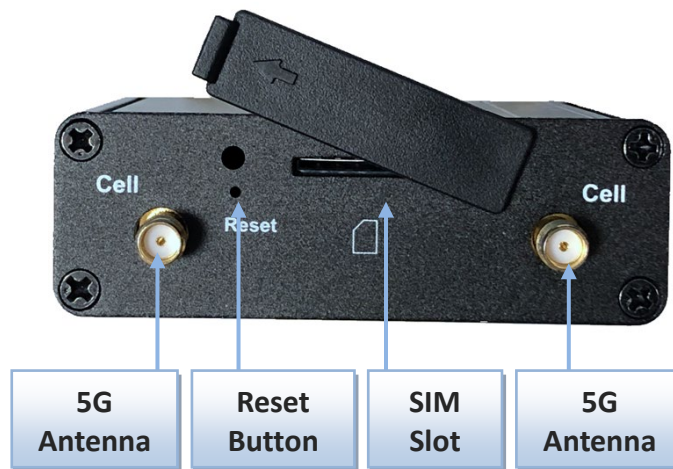
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## 1.3 Hardware Configuration

➤ 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



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Indication	LEDColor	Description
 Power	Blue	<b>Steady On:</b> Device power is on <b>Off:</b> Device power is off
 Cell/PDP	Blue Red	<b>Red and Steady On:</b> Cellular is not registered to network. <b>Red and Flash:</b> Cellular is registering to network. <b>Blue and Steady On:</b> The device registers to 5G network. <b>Blue and Slow Flash:</b> The device registers to LTE or 3G network.
 Signal Strength	Blue	<b>Blue and Steady On:</b> Cellular signal is good. <b>Blue and Slow Flash:</b> Cellular signal is weak. <b>OFF:</b> No cellular signal.

## 1.5 Installation & Maintenance Notice

### 1.5.1 SYSTEM REQUIREMENTS

Network Requirements	<ul style="list-style-type: none"><li>• Ethernet RJ45 cable</li><li>• 4G/5G cellular service subscription</li><li>• 100/1000M Ethernet adapter on PC</li></ul>
Web-based Configuration Utility Requirements	<p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows®, Macintosh, or Linux-based operating system</li><li>• An installed Ethernet adapter</li></ul> <p><b>Browser Requirements:</b></p> <ul style="list-style-type: none"><li>• Internet Explorer 8.0 or higher</li><li>• Chrome 2.0 or higher</li><li>• Firefox 3.0 or higher</li><li>• Safari 3.0 or higher</li></ul>

### 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.
- This commercial-grade power adapter is mainly for ease of powering up the purchased device while initial configuration. It's not for operating at wide temperature range environment. **PLEASE PREPARE OR PURCHASE OTHER INDUSTRIAL-GRADE POWER SUPPLY FOR POWERING UP THE DEVICE.**



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## **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 that to which the receiver is connected.
- 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 complies 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 be 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!!**

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## 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.<sup>1</sup>

### (1) Frequency Band & Maximum Power

Band Number	Frequency Band	Max. Output Power
WCDMA Band 1	1920 ~ 1980 MHz	23 dBm
WCDMA Band 5	824 ~ 849 MHz	23 dBm
WCDMA Band 8	880 ~ 915 MHz	23 dBm
LTE Band 1	1920 ~ 1980 MHz	23 dBm
LTE Band 3	1710 ~ 1785 MHz	23 dBm
LTE Band 5	824 ~ 849 MHz	23 dBm
LTE Band 7	2500 ~ 2570 MHz	23 dBm
LTE Band 8	880 ~ 915 MHz	23 dBm
LTE Band 20	832 ~ 862 MHz	23 dBm
LTE Band 28	703 ~ 748 MHz	23 dBm
LTE Band 38	2570 ~ 2620 MHz	26 dBm
LTE Band 40	2300 ~ 2400 MHz	23 dBm
LTE Band 41	2496 ~ 2690 MHz	26 dBm
LTE Band 42	3400 ~ 3600 MHz	26 dBm
LTE Band 43	3600 ~ 3800 MHz	26 dBm
5G NR Band n1	1920 ~ 1980 MHz	23 dBm
5G NR Band n3	1710 ~ 1785 MHz	23 dBm
5G NR Band n5	824 ~ 849 MHz	23 dBm
5G NR Band n7	2500 ~ 2570 MHz	23 dBm
5G NR Band n8	880 ~ 915 MHz	23 dBm
5G NR Band n20	832 ~ 862 MHz	23 dBm
5G NR Band n28	703 ~ 748 MHz	23 dBm
5G NR Band n38	2570 ~ 2620 MHz	26 dBm
5G NR Band n40	2300 ~ 2400 MHz	23 dBm
5G NR Band n40	2300 ~ 2400 MHz	23 dBm
5G NR Band n41	2496 ~ 2690 MHz	26 dBm
5G NR Band n77	3300 ~ 4200 MHz	26 dBm
5G NR Band n78	3300 ~ 3800 MHz	26 dBm

<sup>1</sup> 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.

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## 1.6 Hardware Installation

This chapter describes how to install and configure the hardware

### 1.6.1 Mount the Unit

The device 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 middle area of device. You need to remove the outer SIM card cover before installing or removing an inserted SIM card. Please follow below instructions to install or remove a SIM card. After SIM card is well installed or removed, put back the outer SIM card cover.

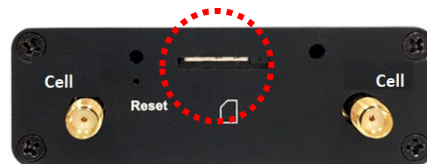
#### Step 1: Remove SIM cover

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



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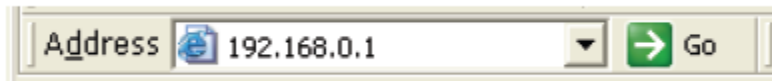
## 1.6.3 Connecting to the Network or a Host

The DWM-311-G 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.

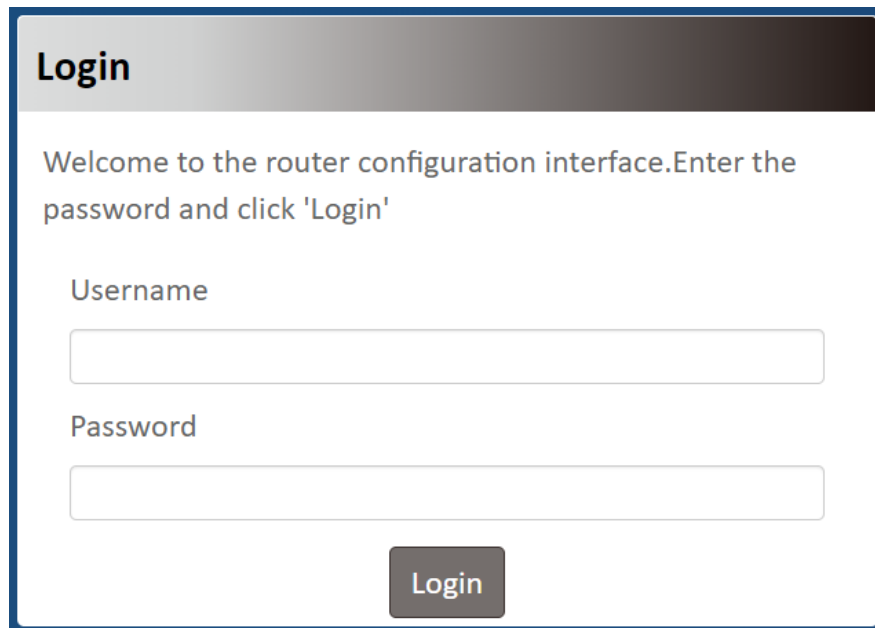
## 1.6.4 Setup by Configuring WEB UI

You can browse web UI to configure the device.

Type in the IP Address (<http://192.168.0.1>)<sup>2</sup>



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

A screenshot of a web-based login interface. At the top, there is a dark grey header with the word 'Login' in white. Below the header, a message reads: 'Welcome to the router configuration interface. Enter the password and click 'Login''. There are two input fields: the first is labeled 'Username' and the second is labeled 'Password'. At the bottom center, there is a dark grey button with the word 'Login' in white.

The default setting for both username and password is '**admin**'<sup>3</sup>.

<sup>2</sup> The default LAN IP address of this gateway is 192.168.0.1 If you change it, you need to login by using the new IP address.

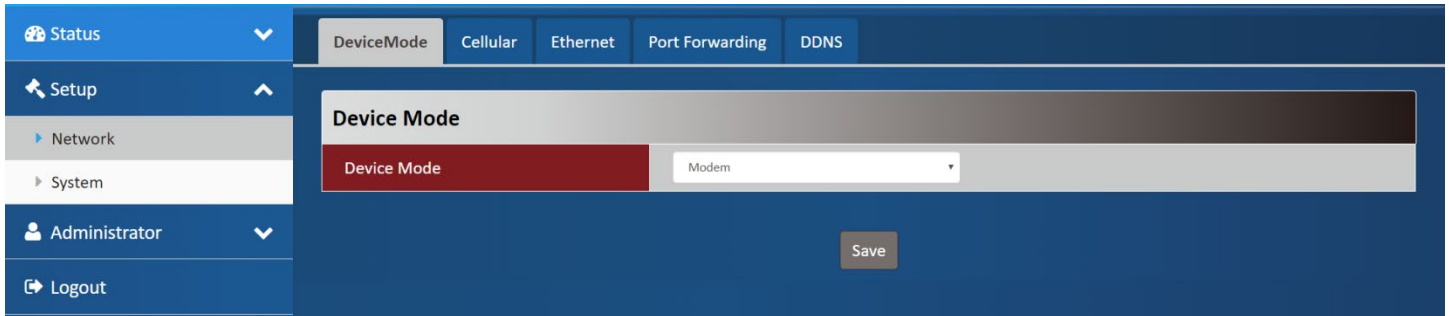
<sup>3</sup> For security concern, the login process will force user to change default password at the first time.

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## Chapter 2 Setup

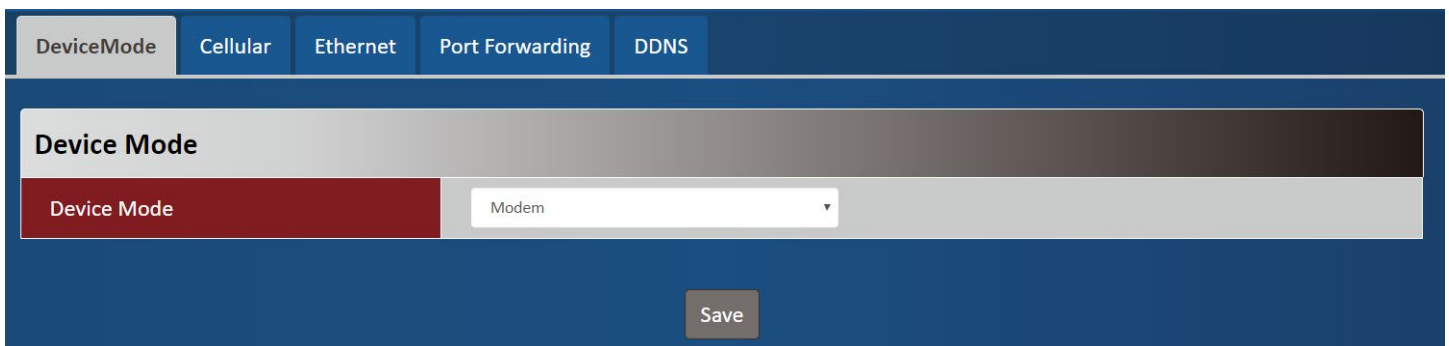
The DWM-311-G connect to a machine via the Ethernet interface for 3G/4G/5G network connection, and also provides another function with NAT router. It can make the network application more flexible.

### 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	<b>NAT</b> The unit will provide a NAT service and provide a simple firewall for the connected device. <b>Modem</b> The unit will pass the cellular IP to connected device via ethernet

#### 2.1.2 Cellular

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Device Mode	Cellular	Ethernet	Port Forwarding	DDNS
<b>Cellular Access</b>				
APN	Manual <input type="button" value="v"/>			
Manual APN	<input type="text"/>			
Username	<input type="text"/>			
Password	<input type="text"/>			
Authentication	Auto <input type="button" value="v"/>			
IP Type	IPv4 <input type="button" value="v"/>			
IP Mode	Dynamic IP <input type="button" value="v"/>		<input type="button" value="Static IP Config"/>	
PIN Code	<input type="text"/>			
MTU Setup	<input type="checkbox"/> Enable <input type="text" value=""/> (68~1500)			
Keep Alive	<input type="checkbox"/> Enable IP Address : <input type="text" value="8.8.8.8"/> Interval : <input type="text" value="60"/> (2~14400 seconds)			
Roaming	<input type="checkbox"/> Enable			
Discard Ping from WAN	<input type="checkbox"/> Enable			

Device Mode Item	Value setting	Description
<b>APN</b>	<ol style="list-style-type: none"> <li>1. A Must filled setting</li> <li>2. By default <b>Auto</b> is selected</li> </ol>	<p><b>Auto</b> The unit will detect the SIM and set an APN from internal database.</p> <p><b>Manual</b> User must set APN manually.</p>
<b>Manual APN</b>	<ol style="list-style-type: none"> <li>1. A Must filled setting</li> <li>2. String format : any text</li> </ol>	Enter the <b>APN</b> you want to use to establish the connection. This is a must-filled setting if you selected <b>Manual APN</b> as APN scheme.
<b>Username</b>	<ol style="list-style-type: none"> <li>1. An Optional setting</li> <li>2. String format : any text</li> </ol>	Enter the optional <b>username</b> settings if your ISP provided such settings to you.
<b>Password</b>	<ol style="list-style-type: none"> <li>1. An Optional setting</li> <li>2. String format : any text</li> </ol>	Enter the optional <b>Password</b> settings if your ISP provided such settings to you.
<b>Authentication</b>	<ol style="list-style-type: none"> <li>1. A Must filled setting</li> <li>2. By default <b>Auto</b> is selected</li> </ol>	<p>Select <b>PAP</b> (Password Authentication Protocol) and use such protocol to be authenticated with the carrier's server.</p> <p>Select <b>CHAP</b> (Challenge Handshake Authentication Protocol) and use such protocol to be authenticated with the carrier's server.</p> <p>When <b>Auto</b> is selected, it means it will authenticate with the server either <b>PAP</b> or <b>CHAP</b>.</p>

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<b>IP Type</b>	<ol style="list-style-type: none"> <li>1. A Must filled setting</li> <li>2. By default <b>IPv4</b> is selected</li> </ol>	Specify the IP type of the network service provided by your 3G/4G network. It can be <b>IPv4</b> , <b>IPv6</b> , or <b>IPv4v6</b> .
<b>IP Mode</b>	<ol style="list-style-type: none"> <li>1. A Must filled setting</li> <li>2. By default <b>Dynamic IP</b> is selected</li> </ol>	<p><b>Dynamic IP</b> The unit will get IP from cellular service..</p> <p><b>Static IP</b> The unit will set IP according <b>Static IP Config.</b></p>
<b>PIN Code</b>	<ol style="list-style-type: none"> <li>1. An Optionalsetting</li> <li>2. String format : interger</li> </ol>	Enter the PIN (Personal Identification Number) code if it needs to unlock your SIM card.
<b>MTU Setup</b>	<ol style="list-style-type: none"> <li>1. AnOptional setting</li> <li>2. <b>Uncheck</b> by default</li> </ol>	<p>Check the Enable box to enable the MTU (Maximum Transmission Unit) limit, and specify the <b>MTU</b> for the 3G/4G connection.</p> <p><b>MTU</b> refers to Maximum Transmission Unit. It specifies the largest packet size permitted for Internet transmission.</p> <p><b>Value Range: 68 ~ 1500.</b></p>
<b>Keep Alive</b>	<ol style="list-style-type: none"> <li>1. An optional setting</li> <li>2. Box is unchecked by default</li> </ol>	Check the <b>Enable</b> box to activate the keep alive function. Input <b>IP Address</b> and <b>interval</b> to send an ICMP packet to check the network status.
<b>Roaming</b>	<ol style="list-style-type: none"> <li>1. AnOptional setting</li> <li>2. <b>Uncheck</b> by default</li> </ol>	Check the checkbox to enable the modem to connect on the cellular network at roaming state.
<b>Discard Ping from WAN</b>	<ol style="list-style-type: none"> <li>1. AnOptional setting</li> <li>2. <b>Uncheck</b> by default</li> </ol>	The modem will not respond the ICMP request packet from remote hosts when the checkbox is checked.

## Static IP Configuration

<b>IP</b>	<input type="text" value="0.0.0.0"/>
<b>Subnet Mask</b>	<input type="text" value="255.255.255.0 (/24)"/>
<b>Default Gateway</b>	<input type="text" value="0.0.0.0"/> (Optional)
<b>Primary DNS</b>	<input type="text" value="0.0.0.0"/> (Optional)
<b>Secondary DNS</b>	<input type="text" value="0.0.0.0"/> (Optional)

Static IP Configuration		
Item	Value setting	Description
<b>IP</b>	<ol style="list-style-type: none"> <li>1. IPv4 format.</li> <li>2. A Must filled setting</li> </ol>	The Static IP Address setting of this unit.
<b>Subnet Mask</b>	255.255.255.0 (/24) is set by default	The Subnet Mask of this configed static IP.
<b>Default Gateway</b>	<ol style="list-style-type: none"> <li>1. IPv4 format.</li> <li>2. AnOptional setting</li> </ol>	Thegateway setting ofthis configed static IP.
<b>Primary DNS</b>	1. IPv4 format.	Assigned DNS server of this configed static IP.



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	2. AnOptional setting	
Secondary DNS	1. IPv4 format. 2. AnOptional setting	Assigned DNS server of this configed static IP.

## 2.1.3 Ethernet

DeviceMode
Cellular
Ethernet
Port Forwarding
DDNS

**Ethernet IP**

IP	<input style="width: 100%;" type="text" value="192.168.123.254"/>
Netmask	<input style="width: 100%;" type="text" value="255.255.255.0 (/24)"/>
DHCP Server	<input checked="" type="checkbox"/> Enable
DHCP Setting	<input type="button" value="DHCP Config"/>

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 <b>Enable</b> box to activate DHCP Server.
DHCP Setting	N/A	Click <b>DHCP Config</b> button to pop-up the <b>DHCP Setting</b> page.

**DHCP Setting**

IP Pool Start	<input style="width: 100%;" type="text" value="5"/>
IP Pool End	<input style="width: 100%;" type="text" value="10"/>
Lease Time	<input style="width: 100%;" type="text" value="3600"/>

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DHCP Setting Item	Value setting	Description
IP Pool Start	1. Numeric 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. Numeric 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. Numeric string format. 2. A Must filled setting	The Lease Time of this DHCP Server. <b>Value Range: 300 ~ 604800 seconds.</b>

## 2.1.4 Port Forwarding

DeviceMode
Cellular
Ethernet
Port Forwarding
DDNS

Virtual Server

Virtual Server

Enable

Add

Save

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

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## Virtual Server Rule Configuration

Name	<input style="width: 100%;" type="text"/>
Server IP	<input style="width: 100%;" type="text"/>
Source IP	<input style="width: 100%;" type="text" value="Any"/>
Protocol	<input style="width: 100%;" type="text" value="TCP(6)"/>
Public Port	<input style="width: 100%;" type="text" value="Single Port"/> <input style="width: 50px;" type="text"/>
Private Port	<input style="width: 100%;" type="text" value="Single Port"/> <input style="width: 50px;" type="text"/>
Rule	<input type="checkbox"/> Enable

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

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

**Rule Name**

test

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

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## 2.1.5 DDNS

Configuration	
DDNS	<input type="checkbox"/> Enable
Provider	DynDNS.org
Host Name	<input type="text"/>
User Name / E-Mail	<input type="text"/>
Password / Key	<input type="text"/>

Save

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

# 5G M2M Modem

System Time	Language	System Information	Scheduling
<b>System Time</b>			
Current Time	Fri Jan 1 01:17:07 2021		
Sync Time	Auto		
Time Zone	(GMT+00:00) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London		
NTP Server	pool.ntp.org		
Daylight Saving	<input type="checkbox"/> Enable		
Start Date	1 / 1 / 0 (Month/Day/Hour)		
End Date	1 / 1 / 0 (Month/Day/Hour)		
Action	Action		

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

# 5G M2M Modem

## 2.2.2 Language

System Time GNSS **Language** System Information Scheduling

Configuration

Language List English

Save

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

## 2.2.3 System Information

System Time Language System Information **Scheduling**

System Information

Model Name DWM-311-G A2

System Information Item	Value setting	Description
Model Name	DWM-311-G	Show the model name of the device

## 2.2.4 Scheduling

System Time GNSS Language System Information Scheduling

Time Schedule

Time Schedule Add

Scheduling Item	Value setting	Description
Time Schedule	N/A	Press Add to create a schedule rule for system.

# 5G M2M Modem

### Time Schedule Configuration

Rule Name	<input type="text"/>
Rule Policy	<input type="text" value="Inactivate"/> The Selected Days and Hours Below.

### Time Period Definition

Week Day	<input type="text" value="Every Day"/>
Start Time (hh:mm)	<input type="text"/>
End Time (hh:mm)	<input type="text"/>

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



# 5G M2M Modem

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 <b>Upgrade</b> button to start upgrade process with selected FW

Backup Configuration Settings		
Item	Value setting	Description
Backup Configuration Settings	N/A	Select <b>“Download”</b> to backup current configuration to a file. Select <b>“Upload”</b> to restore configuration from selected file.

## 3.1.2 Password & MMI

# 5G M2M Modem

FW Upgrade
Password & MMI
Reboot & Reset
SSH
Remote Administrator

### Username

Username	admin
New Username	<input style="width: 100%;" type="text"/>

### Password

Old Password	<input style="width: 100%;" type="password"/>
New Password	<input style="width: 100%;" type="password"/>
New Password Confirmation	<input style="width: 100%;" type="password"/>

(NOTE: The password must be at least 10 characters long, and must contain at least 1 English letter and 1 number. The password cannot be the same as the login account.)

### MMI

Login	Password-Guessing Attack & MAX: <input style="width: 30px;" type="text" value="3"/> (times)
Login Timeout	<input checked="" type="checkbox"/> Enable <input style="width: 30px;" type="text" value="300"/> (seconds)

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

Password	Value setting	Description
<b>Old Password</b>	1. String: any text 2. <b>The default password for web-based MMI is</b>	Enter the current password to enable you unlock to change password.

# 5G M2M Modem

	'admin'.	
<b>New Password</b>	String: any text	Enter new password
<b>New Password Confirmation</b>	String: any text	Enter new password again to confirm
<b>Save</b>	N/A	Click <b>Save</b> button to save the settings

MMI Item	Value setting	Description
<b>Login</b>	3 times is set by default	Enter the login trial counting value. <b>Value Range:</b> 3 ~ 10. If someone tried to login the web GUI with incorrect password for more than the counting value, an warning message " <b>Already reaching maximum Password-Guessing times, please wait a few seconds!</b> " will be displayed and ignore the following login trials.
<b>Login Timeout</b>	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. <b>Value Range:</b> 30 ~65535.

## 3.1.3 Reboot & Reset

The screenshot shows the 'Reboot & Reset' configuration page. At the top, there are navigation tabs: 'FW Upgrade', 'Password & MMI', 'Reboot & Reset' (selected), 'SSH', 'Remote Administrator', and 'AT & NMEA'. Below the tabs is a 'System Operation' section with a dark header. It contains two rows of controls: the first row has a red 'Reboot' button, a dropdown menu set to 'Now', and a grey 'Reboot' button; the second row has a red 'Reset to Default' button and a grey 'Reset' button. At the bottom center of the page is a grey 'Save' button.

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

# 5G M2M Modem

## 3.1.4 SSH

SSH Item	Value setting	Description
SSH	<ol style="list-style-type: none"><li>Default value is disable such service</li><li>By default <b>Service Port</b> is 22.</li></ol>	<p>Check the <b>Enable</b> box to activate the SSH Telnet function for connecting from LAN or WAN interfaces.</p> <p>You can set which number of <b>Service Port</b> you want to provide for the corresponding service.</p> <p><b>Value Range:</b> 1 ~65535.</p>

FW Upgrade Password & MMI Reboot & Reset **SSH** Remote Administrator

**Configuration**

SSH LAN  Enable WAN  Enable Service Port : 22

## 3.1.5 Remote Administrator

FW Upgrade Password & MMI Reboot & Reset SSH **Remote Administrator**

**Remote Administrator Host Definition**

Remote Administrator Host Definition

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

# 5G M2M Modem

## Rule Configuration

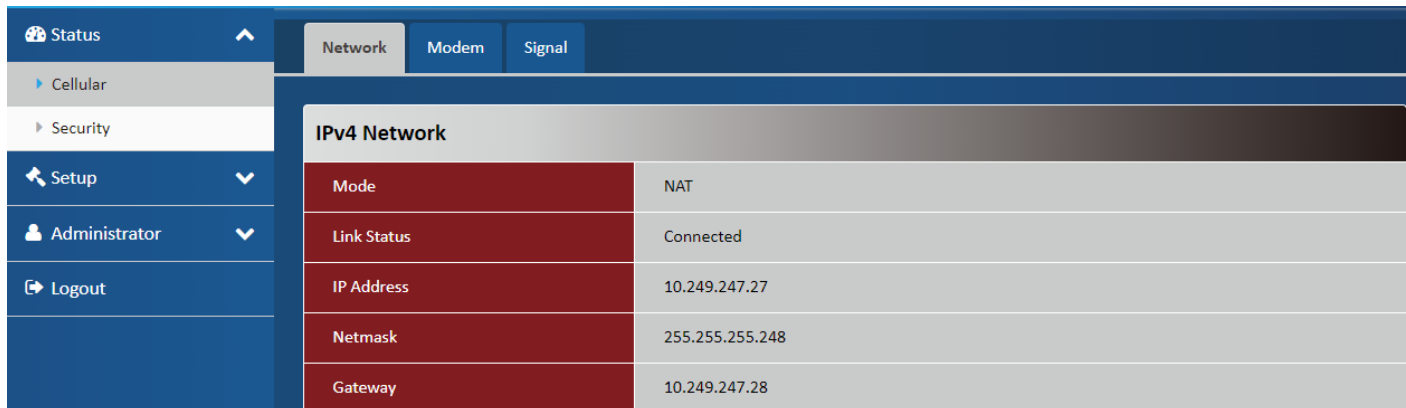
Name	<input style="width: 100%;" type="text"/>	
Protocol	<input style="width: 100%;" type="text" value="HTTP"/>	
Remote IP	<input style="width: 100%;" type="text" value="Any IP"/>	<input style="width: 100%;" type="text"/>
Subnet Mask	<input style="width: 100%;" type="text" value="255.0.0.0 (/8)"/>	
Service Port	<input style="width: 100%;" type="text" value="80"/>	
Rule	<input type="checkbox"/> Enable	

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

## Chapter 4 Status

# 5G M2M Modem

## 4.1 Cellular

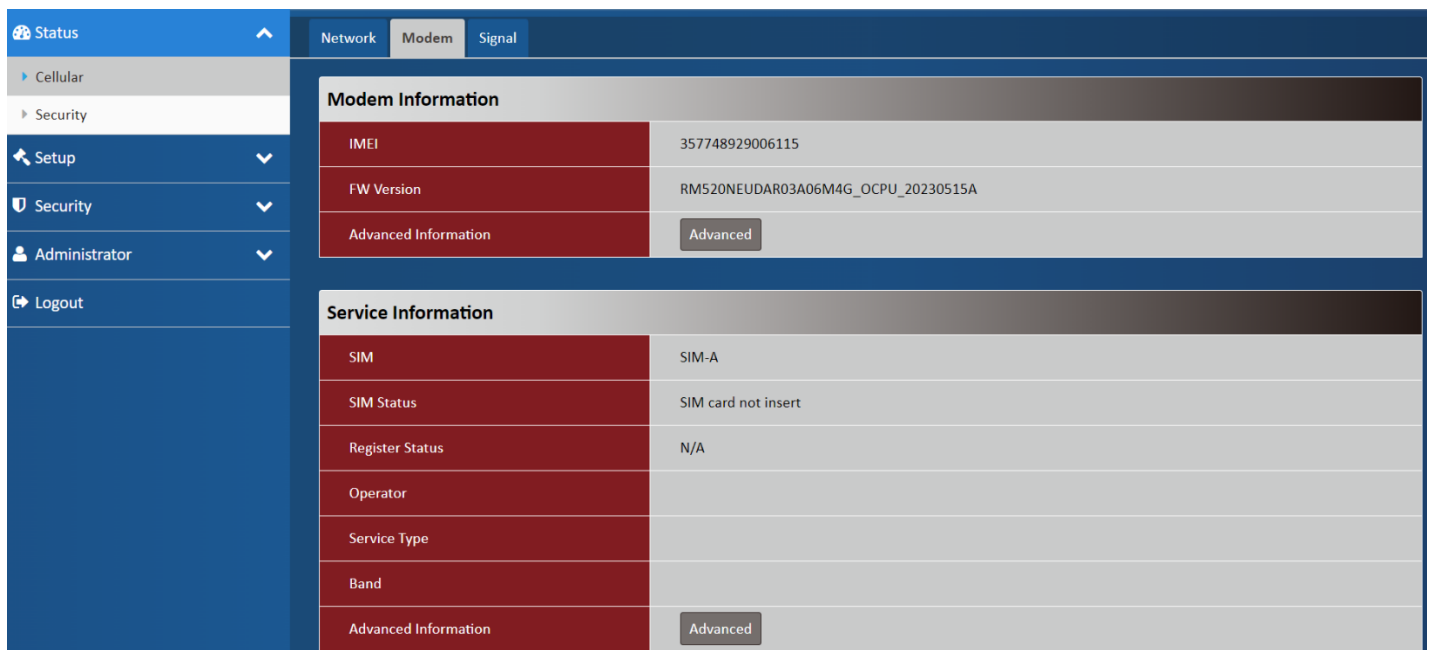


IPv4 Network	
Mode	NAT
Link Status	Connected
IP Address	10.249.247.27
Netmask	255.255.255.248
Gateway	10.249.247.28

### 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	
IMEI	357748929006115
FW Version	RM520NEUDAR03A06M4G_OCPU_20230515A
Advanced Information	<a href="#">Advanced</a>

Service Information	
SIM	SIM-A
SIM Status	SIM card not insert
Register Status	N/A
Operator	
Service Type	
Band	
Advanced Information	<a href="#">Advanced</a>

Modem information Page	
Item	Description
IMEI	Display modem IMEI information
FW version	Display modem fw version

# 5G M2M Modem

**Advanced Information** Click "advanced" button to show Advanced Information

Advanced information	
IMEI	868371050045414
Temperature	57 °C
4G Band Capability	1:2:3:4:5:7:8:12:13:14:17:18:19:20:25:26:28:29:30:32:34:38:39:40:41:42:43:46:48:66:71
5G Band Capability	1:2:3:5:7:8:12:13:14:18:20:25:26:28:29:30:38:40:41:48:66:70:71:75:76:77:78:79

## 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

SIM	SIM-A
SIM Status	Ready
Register Status	Registered
Operator	Chunghwa Telecom
Service Type	LTE
Band	Band 3
Advanced Information	<input type="button" value="Advanced"/>

## 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	Click "advanced" button to show Advanced Information

# 5G M2M Modem

Advanced information	
MCC	466
MNC	92
Roaming	No
Cell ID	965E40E
Band	Band 7
LAC	0
TAC	36400

[Close](#)

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

Status	Network	Modem	Signal
Cellular	Cellular Signal		
Security	Service Type	LTE	
Setup	Operator	Chunghwa Telecom	
Administrator	RSSI	-73	
Logout	Advanced Information	<a href="#">Advanced</a>	

Cellular Signal Page	
Item	Description
Service type	Cellular service type LTE /5G
Operator	Operator name
RSSI	Display Received Signal



# 5G M2M Modem

Advanced Information Click "advanced" button to show Advanced Information

Advanced information	
RSSI	-73
RSRP	-103
RSRQ	-12
SINR	1.40
RSCP	0
ECIO	0

[Close](#)

## 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

## 4.2 Security

VPN

OpenVPN Client Name

OpenVPN Client #1 [Advanced](#)

### 4.2.1 VPN

OpenVPN Client Name

OpenVPN Client #1 [Advanced](#)

## Openvpn client name Page

# 5G M2M Modem

Item	Description
Openvpn client #1	Click <b>advanced</b> button to show Advanced Information

Advanced Information	
OpenVPN Client Name	OpenVPN Client #1
Remote IP/FQDN	122.146.196.220
Remote Subnet	192.168.218.0 / 24
Virtual IP	0.0.0.0
Conn.Time	00:00:00:00
Conn.Status	Disconnected

Close

Advanced Information Page	
Item	Description
Openvpn client name	Vpn Client name
Remote ip/FQDN	Vpn server ip or FQDN
Remote subnet	Vpn server remote subnet
Virtual ip	Vpn virtual ip
Conn.time	Display connected time
Conn.status	Display connected or disconnected