

4G Socket Modem

MDG100-0TU01 (LTE cat. 4)

User Manual



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Chapter 1 Introduction

1.1 Introduction

Congratulations on your purchase of AMIT's MDG100 M2M Cellular Socket Modem. With this AMIT cellular 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 3G/4G cellular connection.
- Deriver ready on Windows 10, Linux and FreeSD.
- Simple Web GUI is used for basic setting and check the 3G/4G status.
- Optional GNSS function for location service.


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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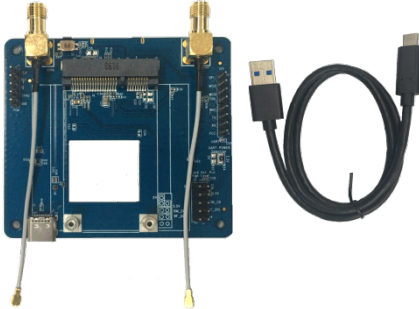
1.2 Contents List

1.2.1 Package Contents

#Standard Package

Items	Description	Contents	Quantity
1	MDG100-0TU01 4G Socket Modem		1pcs

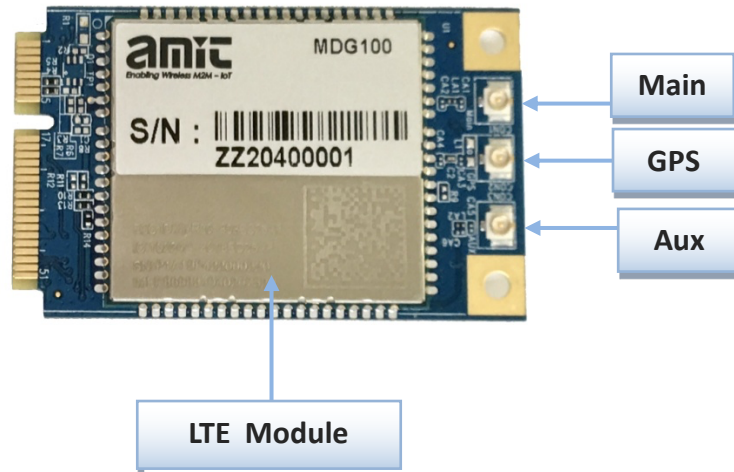
#Optional Package

Items	Description	Contents	Quantity
1	Cellular Antenna		2 pcs
2	RF Cable SMA to iPex		100mm / 120mm / 150mm
3	Mini-PCle to USB Loader		1 pcs

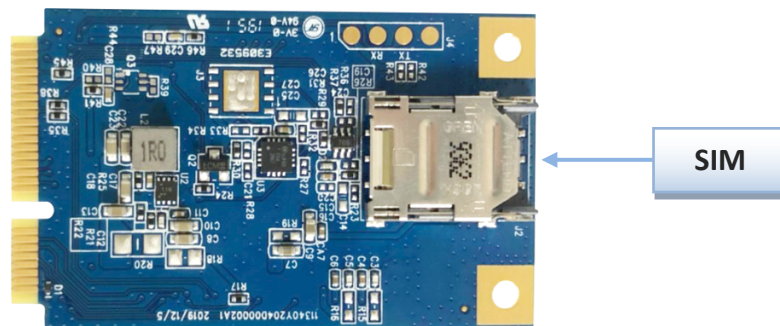
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1.3 Hardware Configuration

➤ Top View



➤ Bottom View



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1.4 Installation

1.4.1 SYSTEM REQUIREMENTS

Network Requirements	<ul style="list-style-type: none">• Mini-PCle with USB2.0 interface• 3G/4G cellular service subscription
Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer 10.0 or higher• Chrome 73 or higher• Firefox 60.0 or higher

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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 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.

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1.4.2 Product Information

The following product information is required to be presented in product User Manual

(1) Frequency Band & Maximum Power

1.a Frequency Band for Cellular Connection (for EC25-EU version)

Band number	Operating Frequency	Max output power
LTE FDD BAND 1	Uplink: 1920-1980 MHz Downlink: 2110-2170 MHz	23.1 dBm
LTE FDD BAND 3	Uplink: 1710-1785 MHz Downlink: 1805-1880 MHz	23.0 dBm
LTE FDD BAND 7	Uplink: 2500-2570 MHz Downlink: 2620-2690 MHz	22.8 dBm
LTE FDD BAND 8	Uplink: 880-915 MHz Downlink: 925-960 MHz	23.2 dBm
LTE FDD BAND 20	Uplink: 832-862 MHz Downlink: 791-821 MHz	23.5 dBm
LTE FDD BAND 28A	Uplink: 704 -723 MHz Downlink: 759 - 778MHz	23 dBm
LTE FDD BAND 38	Uplink: 2570-2620 MHz Downlink: 2570-2620 MHz	21.7 dBm
LTE FDD BAND 40	Uplink: 2300-2400 MHz Downlink: 2300-2400 MHz	21.5 dBm
WCDMA BAND 1	Uplink: 1920-1980 MHz Downlink: 2110-2170 MHz	23.3 dBm
WCDMA BAND 8	Uplink: 880-915 MHz Downlink: 925-960 MHz	
E-GSM	Uplink: 880-915 MHz Downlink: 925-960 MHz	32.9 dBm
DCS	Uplink: 1710-1785 MHz Downlink: 1805-1880 MHz	29.9 dBm

1.b Frequency Band for Cellular Connection (for Quectel EC25-AF version)

Band number	Operating Frequency	Max output power
LTE FDD BAND 2	Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz	23.86 dBm
LTE FDD BAND 4	Uplink: 1710-1755 MHz Downlink: 2110-2155 MHz	23.82 dBm
LTE FDD BAND 5	Uplink: 824-849 MHz Downlink: 869-894 MHz	23.46 dBm
LTE FDD BAND 12	Uplink: 699-716 MHz Downlink: 729-746 MHz	23.75 dBm
LTE FDD BAND 13	Uplink: 777-787 MHz Downlink: 746-756 MHz	23.86 dBm

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LTE FDD BAND 14	Uplink: 788-798 MHz Downlink: 758-768 MHz	23.86 dBm
LTE FDD BAND 66	Uplink: 1710-1780 MHz Downlink: 2100-2200 MHz	23.34 dBm
WCDMA BAND 2	Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz	23.3 dBm
WCDMA BAND 4	Uplink: 1710-1755 MHz Downlink: 2110-2155 MHz	
WCDMA BAND 5	Uplink: 824-849 MHz Downlink: 869-894 MHz	

(2) DoC Information

You can get the DoC information of this product from the following URL:

<http://www.amitwireless.com/products-doc/>

(3) Manufacture Information

Manufacture Name: AMIT Wireless Inc.

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

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1.5 Hardware Installation

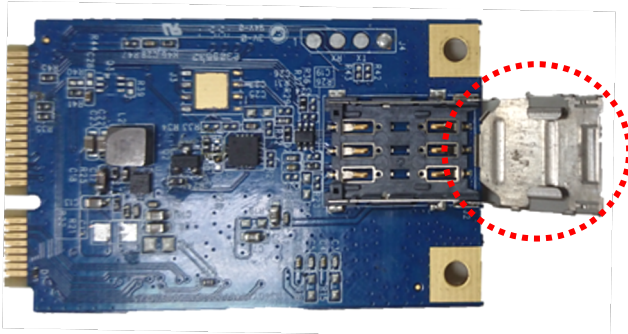
This chapter describes how to install and configure the hardware

1.5.1 Insert the SIM Card

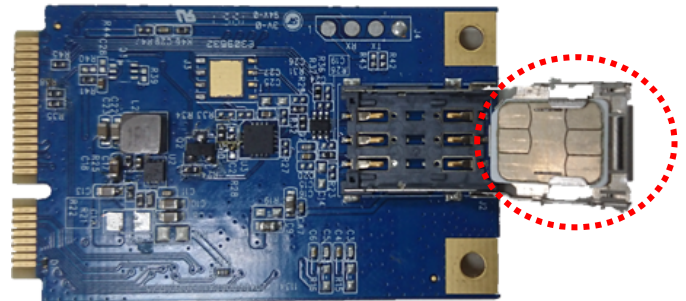
WARNING: BEFORE INSERTING OR CHANGING THE SIM CARD, PLEASE MAKE SURE THAT POWER OF THE DEVICE IS SWITCHED OFF.

SIM card slot is located in the bottom area of MDG100 series. You need to insert the SIM card first and mount the device on Mini-PCle socket if your host board has no SIM slot. Please follow below instructions to install or remove a SIM card.

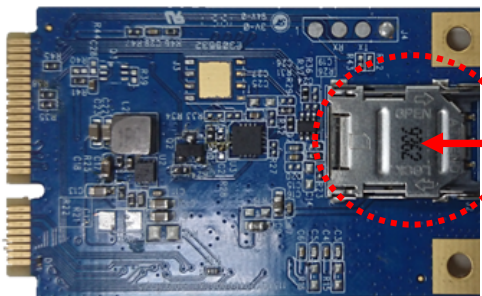
Step 1: Raise-up SIM Holder
Raise-up the SIM holder



Step 2: Insert SIM
Push the inserted SIM card on SIM holder.



Step 3: Lock down SIM Holder

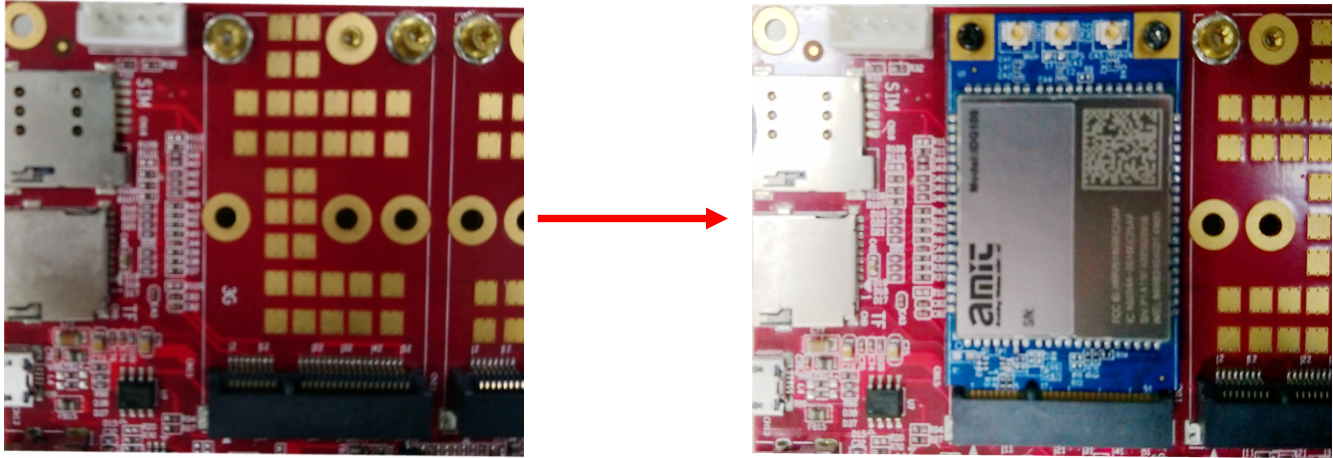


Pull the SIM holder down to lock it

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1.5.2 Connecting to the Host Board

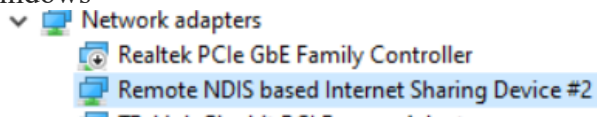
The MDG100 is a modem device with Mini-PCIe interface with USB 2.0. User needs to put the card on a Mini-PCIe socket and link cellular antenna on the modem to enable the cellular connection.



Put the MDG100 on MiniPCIe socket

User can check device information in several different OS as below.

Windows



Linux

```
T: Bus=01 Lev=01 Prnt=01 Port=01 Cnt=01 Dev#= 6 Spd=480 MxCh= 0
D: Ver= 2.00 Cls=ef(misc ) Sub=02 Prot=01 MxPS=64 #Cfgs= 1
P: Vendor=05c6 ProdID=90b3 Rev= 3.18
S: Manufacturer=Qualcomm
S: Product=EC25-AF
C:* #Ifs= 4 Cfg#= 1 Atr=a0 MxPwr=500mA
A: FirstIf#= 0 IfCount= 2 Cls=e0(wlcon) Sub=01 Prot=03
I:* If#= 0 Alt= 0 #EPs= 1 Cls=e0(wlcon) Sub=01 Prot=03 Driver=rndis_host
E: Ad=82(I) Atr=03(Int.) MxPS= 8 IvL=32ms
I:* If#= 1 Alt= 0 #EPs= 2 Cls=0a(data ) Sub=00 Prot=00 Driver=rndis_host
E: Ad=81(I) Atr=02(Bulk) MxPS= 512 IvL=0ms
E: Ad=01(0) Atr=02(Bulk) MxPS= 512 IvL=0ms
```

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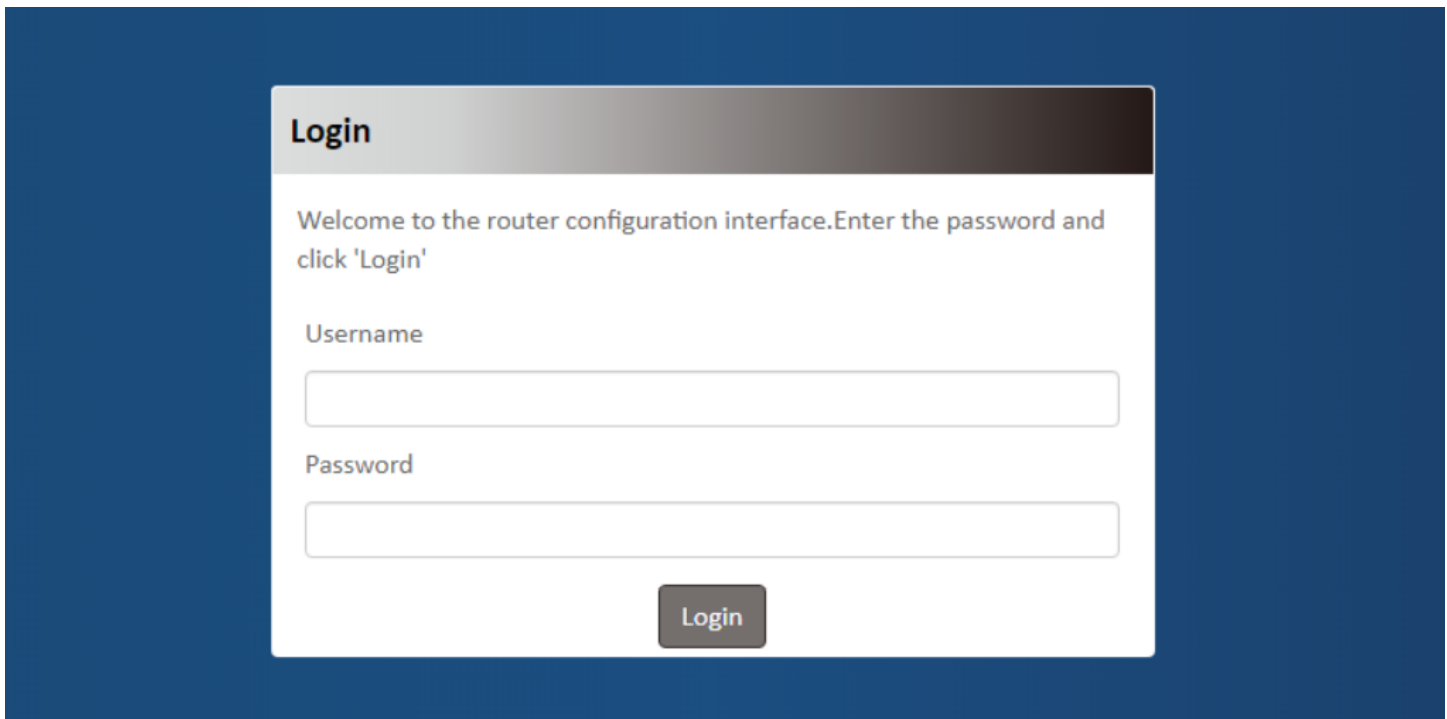
1.5.2 Setup by Configuring WEB UI

User can browse web UI to configure the modem device.

Type in the IP Address (<http://172.16.0.1>)¹



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’**².



¹ The default LAN IP address of this device is 172.16.0.1. If you change it, you need to login by using the new IP address.

² 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 MDG100 series connect to a machine via USB 2.0 interface on Mini-PCle socket for 3G/4G network connection. MDG100 provides NAT and Modem functions and helps the network application more flexible.

2.1 Network

The screenshot shows the MDG100 web interface. On the left is a sidebar with 'Status', 'Setup', 'Network', 'System', 'Administrator', and 'Logout'. The main area has tabs for 'DeviceMode', 'Cellular', 'Ethernet', 'Port Forwarding', and 'DDNS'. The 'Device Mode' tab is active, showing a 'Device Mode' section with a dropdown menu set to 'Modem' and a 'Save' button.

Network Page	
Item	Description
Device Mode	Set the unit operating mode
Cellular	Set the parameter for cellular network.
Ethernet	Set the IP of LAN side 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

The screenshot shows the MDG100 web interface with the 'Device Mode' tab selected. The 'Device Mode' section displays a dropdown menu set to 'Modem' and a 'Save' button.

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 on LAN side.

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2.1.2 Cellular

Cellular Access	
SIM Select	<div>Internal</div>
APN	<div>Manual</div>
Manual APN	<div></div>
Username	<div></div>
Password	<div></div>
Authentication	<div>Auto</div>
IP Type	<div>IPv4</div>
IP Mode	<div>Static IP</div> <div>Static IP Config</div>
PIN Code	<div></div>
MTU Setup	<div><input type="checkbox"/> Enable</div> <div></div> (68~1500)
Keep Alive	<div><input type="checkbox"/> Enable</div> <div>IP Address : <div>8.8.8.8</div> Interval : <div>60</div> (2~14400 seconds)</div>

Save

Device Mode Item	Value setting	Description
SIM Select	1. A Must filled setting 2. By default Internal is selected	Auto The unit will switch SIM path automatically. Internal The unit will use SIM slot on board. External The unit will use SIM path via Mini-PCle interface.
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

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		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 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 .
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 .
PIN Code	1. An Optional setting 2. String format : interger	Enter the PIN (Personal Identification Number) code if it needs to unlock your SIM card.
MTU Setup	1. An Optional 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 keepalive function. Input IP Address and interval to send an ICMP packet to check the network status.

Static IP Configuration

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

Save

Close

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. An Optional setting	The gateway setting of this configed static IP.
Primary DNS	1. IPv4 format. 2. An Optional setting	Assigned DNS server of this configed static IP.
Secondary DNS	1. IPv4 format.	Assigned DNS server of this configed static IP.

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2. An Optional setting

2.1.3 Ethernet

DeviceMode

Cellular

Ethernet

Port Forwarding

DDNS

Ethernet IP

IP

192.168.123.254

Netmask

255.255.255.0 (/24)

DHCP Server

☒ Enable

DHCP Setting

DHCP Config

Save

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

IP Pool Start

5

IP Pool End

10

Lease Time

3600

Save

Close

DHCP Setting		
Item	Value setting	Description
IP Pool Start	1. Numeric string format.	The IP Pool of this DHCP Server. It is Starting Address entered in this field.

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	2. A Must filled setting	
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. Value Range: 300 ~ 604800 seconds.

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 Enable box to activate this port forwarding function Click Add will pop-up Virtual Server Rule Configuration page.

Virtual Server Rule Configuration

Name

Server IP

Protocol

Public Port

Private Port

Rule

TCP(6) ▼

Single Port ▼

Single Port ▼

☐ Enable

Save

Close

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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.
Protocol	A Must filled setting	<p>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. <u>Value Range</u>: 1 ~ 65535 for Public Port, Private Port.</p> <p>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. <u>Value Range</u>: 1 ~ 65535 for Public Port, Private Port.</p> <p>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. <u>Value Range</u>: 1 ~ 65535 for Public Port, Private Port.</p> <p>When "User-defined" is selected It means the option "Protocol" of packet filter rule is User-defined. For Protocol Number, enter a port number.</p>
Rule	1. An optional filled setting 2. The box is unchecked by default.	Check the Enable box to activate the rule.

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Rule Name	
test	<button>Edit</button> <button>Delete</button>

Virtual Server – Rule Name		
Item	Value setting	Description
Rule name	N/A	Click “ 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

DeviceMode	Cellular	Ethernet	Port Forwarding	DDNS
------------	----------	----------	-----------------	------

Configuration

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

Save

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 of DDNS Service.
Password / Key	1. String format can be any text 2. A Must filled setting	Enter your Password or Key of DDNS Service.

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2.2 System

This section provides the configuration of system features.

2.2.1 System Time

System Time

Language

System Information

Scheduling

System Time

Current Time

Wed Jan 1 01:18:05 2020

Sync Time

Auto

Time Zone

(GMT+00:00) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London

Daylight Saving

☐ Enable

Start Date

1 / 1 / 0 (Month/Day/Year)

End Date

1 / 1 / 0 (Month/Day/Year)

Action

Action

Save

System Time		
Item	Value setting	Description
Current Time	N/A	Show the current time of the unit.
Sync Time	1. A Must-filled item. 2. Auto 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.
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

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2.2.2 Language

System TimeLanguageSystem InformationScheduling

Configuration

Language List

English

Save

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 TimeLanguageSystem InformationScheduling

System Information

Model Name

IDG100-0TU01

Serial Number

Manufacturing Date

System Information Item	Value setting	Description
Model Name	N/A	Show the model name of the device
Serial Number	N/A	Show the serial number of the device
Manufacturing Datte	N/A	Show the manufacturing date of the device.

2.2.4 Scheduling

System TimeLanguageSystem InformationScheduling

Time Schedule

Time Schedule

Add

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

Time Schedule Configuration

Rule Name

Rule Policy

Inactivate

The Selected Days and Hours Below.

Time Period Definition

Week Day

Every Day

Start Time (hh:mm)

End Time (hh:mm)

Save

Close

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

This section provides configuration to manage the device.

3.1.1 FW Upgrade

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

Firmware Information

FW Version

00004D0.K41_042.0000_05211630

FW Date

2020/05/21

Firmware Upgrade

FW Path

Choose File

No file chosen

Upgrade Action

Upgrade

Backup Configuration Settings

Backup Configuration Settings

Download

Via Web UI

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.

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3.1.2 Password & MMI

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

Password

Old Password

New Password

New Password Confirmation

Save

MMI

Login

Password-Guessing Attack & MAX: 3 (times)

Login Timeout

☒ Enable 300 (seconds)

Save

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

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

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3.1.3 Reboot & Reset

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

System Operation

Reboot

Now

Reboot

Reset to Default

Reset

Save

Device Mode		
Item	Value setting	Description
Reboot	N/A	Click 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 Telnet & SSH

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

Configuration

Telnet

LAN ☐ Enable WAN ☐ Enable Service Port : 23

SSH

LAN ☐ Enable WAN ☐ Enable Service Port : 22

Save

Telnet & SSH		
Item	Value setting	Description
Telnet	<div><div>1. Default value is disable such service</div><div>2. By default Service Port is 23.</div></div>	<div>Check the Enable box to activate the Telnet function for connecting from LAN or WAN interfaces.</div> <div>You can set which number of Service Port you want to provide for the corresponding service.</div> <div>It doesn't command to enable WAN site if the device service in public IP.</div> <div>Value Range: 1 ~65535.</div>
SSH	<div><div>1. Deafule value is disable such service.</div><div>2. By default Service Port is 22.</div></div>	<div>Check the Enable box to activate the SSH Telnet function for connecting from LAN or WAN interfaces.</div> <div>You can set which number of Service Port you want to provide for the corresponding service.</div> <div>Value Range: 1 ~65535.</div>

3.1.5 Remote Administrator

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

Remote Administrator Host Definition

Remote Administrator Host Definition

Add

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

Rule Configuration

Name

Protocol

HTTP

Remote IP

Any IP

Subnet Mask

255.0.0.0 (/8)

Service Port

80

Rule

☐ Enable

Save

Close

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	This field is to specify a Service Port to HTTP or HTTPS connection.

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	2. 443 for HTTPS by default	<u>Value Range:</u> 1 ~ 65535.
Rule	The box is unchecked by default.	Click Enable box to activate this rule.

3.1.6 AT & NMEA

FW Upgrade

Password & MMI

Reboot & Reset

Telnet & SSH

Remote Administrator

AT & NMEA

System Operation

AT/NMEA Port

☐ Enable

Save

AT & NMEA Item	Value setting	Description
AT/NMEA Port	Default value is disabled	Enable this function to have additional AT and NMEA ports of the modem. AT port provides interface for user to send standard AT command(3GPP TS 27.005 / 27.007). NMEA port will informs location satat if user enable GNSS function.