

Industrial LoRaWAN[®] Gateway UG56

Quick Guide



Safety Precautions

Milesight will not shoulder responsibility for any loss or damage resulting from not following the instructions of this operating guide.

- The device must not be modeled in any way.
- Do not place the device close to objects with naked flames.
- Do not place the device where the temperature is below/above the operating range.
- Do not power on the device or connect it to another electrical device when installing.
- Check lightning and water protection when used outdoors.
- Do not connect or power the equipment using cables that have been damaged.

Related Documents

This Quick Start Guide only explains the installation of Milesight UG56 LoRaWAN[®] Gateway. For more functionality and advanced settings, please refer to the relevant documents as below.

Document	Description
UG56 Datasheet	Datasheet for UG56 LoRaWAN [®] Gateway.
UG56 User Guide	Users can refer to the guide for instruction on how to log in the web GUI, and
	how to configure all the settings.

The related documents are available on Milesight website: https://www.milesight-iot.com

Declaration of Conformity

UG56 is in conformity with the essential requirements and other relevant provisions of the CE, FCC, and RoHS.





For assistance, please contact Milesight technical support: Email: <u>iot.support@milesight.com</u> Support Portal: <u>support.milesight-iot.com</u> Tel: 86-592-5085280 Fax: 86-592-5023065

Revision History

Date	Doc Version	Description
Aug.8, 2022	V1.0	Initial version
Apr. 3, 2023	V1.1	Add external cellular antenna option and installation
Aug. 2, 2024	V1.2	Add default WLAN connection password
lan 20 2025	V1.3	1. Add optional accessories: DIN rail clip and adapter
Jan. 20, 2025		2. Add DIN Rail Mounting steps
April 11, 2025	V 1 4	1. Remove wired access method
April 11, 2025	V 1.4	2. Update Wi-Fi connection and network server steps

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1. Packing List

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Before you begin to install the UG56 LoRaWAN[®] Gateway, please check the package contents to verify that you have received the items below.



If any of the above items is missing or damaged, please contact your sales representative.

2. Hardware Introduction

2.1 Overview



- 1) LoRaWAN[®] Antenna Connector
- 2 SIM Slot
- ③ Micro SD Slot
- ④ Reset Button
- (5) Cellular Antenna Connector (Cellular Version Only)

Note: It is necessary to open the front cover to see the slots and reset button.



- 6 LED Indicators
- ⑦ Type-C Power & Console Port
- (8) Ethernet Port (PoE)

2.2 Dimensions (mm)



2.3 LED Indicators

LED	Indication	Status	Description
		Off	The system is starting up
SYS	System Status	Red Light	The system goes wrong
		Green Light	The system is running properly
LoRa	LoRa Status	Off	Packet Forwarder mode is running off
		On	Packet Forwarder mode is running well
Ethernet Port	Link Indiantar	Off	Disconnected or connect failure
		On	Connected
	(Yellow)	Blinking	Transmitting data

Rate Indicator	Off	Other modes
(Green)	On	100 Mbps mode

2.4 Reset Button

Function	Description				
	SYS LED	Action			
Reset	Static Green	Press and hold the reset button for more than 5 seconds.			
	Static Green → Rapidly Blinking	Release the button and wait.			
	Off → Static Green	The gateway resets to factory default.			

3. Hardware Installation

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3.1 SIM & Micro SD Installation

Remove the front panel of the device, insert the SIM card or micro SD card into the corresponding slot. **Note:**

- Before inserting, ensure this gateway supports cellular feature which the PN includes "-Lxxxx" on the label.
- UG56 does not support hot plugging (also called hot swapping). please turn off the power before you insert or take off cards.



3.2 Antenna Installation

Rotate antennas into the antenna connectors.

Note:

- The antenna should be installed vertically, with the magnetic base attached to a metal surface.
- Keep the antenna away from walls and ensure there are no obstacles around it.
- For better coverage, it is recommended to position the antenna at a higher location.
- Place the antenna near windows when used indoors.
- Keep a distance of at least 50 cm between antennas.



If you need to fix the LoRaWAN[®] fiber-glass antenna to a pole, please pass the LoRaWAN[®] antenna through the antenna clamp and fix it with 4 screws, then wrap the U-bolt around a pole and fix the clamp with nuts and other accessories.

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3.3 Power Supply

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UG56 can be powered by 802.3af standard PoE or Type-C port (5 VDC). If both are connected, the device will be powered by the former method (PoE).

• Power by a PoE Switch



• Power by a PoE injector



UG56 Device

Power Adapter

Note: When connecting, Ethernet cable of UG56 device side should be installed first, otherwise, PoE devices or gateway may be damaged.

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3.4 Gateway Installation

Before you get started, make sure all fittings are installed and the power supply is disconnected.

Wall Mounting

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1. Fix the wall mounting bracket to the device with 2 x M3 bracket fixing screws.



2. Drill 4 holes on the wall according to the wall mounting bracket, then fix the wall plugs into the wall.

3. Fix the device to the wall plugs with M3 wall mounting screws. When installation, it's suggested to fix the upper two screws first.



DIN Rail Mounting

Note: only new hardware devices support DIN rail mounting.

1. Fix the mounting clip to the device with 3 fixing screws.



2. Hang the device to the DIN rail. The width of DIN rail is 3.5cm.



4. Web GUI Access

UG56 provides a web-based configuration interface for management. If this is the first time you configure the gateway, please use the default settings below:

Username: admin

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Password: password

Browser: Chrome(recommended)

1. Enable wireless network connection on your computer and search for access point "**Gateway_********" to connect it, the default Wi-Fi password is **iotpassword**.

2. Open a web browser on your PC (Chrome is recommended) and type in the IP address **192.168.1.1** to access the web GUI, enter the username and password, click "Login".

	Language	English ~
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togn •		
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If you enter the username or password incorrectly more than 5 times, the login page will be locked for 10 minutes.

3. After logging the web GUI, follow the guide to complete the basic configurations. It's suggested that you change the password for the sake of security.

Old Password			
New Password	[
Confirm New P	assword	 	

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4. You can view system information and perform configuration of the gateway.

Milesight									💄 admin 🔁	
For your device security, please change the default password										
Status		Overview	Cellular	Network	WLAN	VPN	Routing	Host List	Help —	
Packet Forwarder		System Informa	ation						Model Show the model name of gateway.	
		Model		UG56-L00E	E-915M				Region Show the Region of	
Network Server		Region		US915					gateway.	
Network	×	Serial Number		6041C2232	2749				Serial Number Show the serial number of	
		Firmware Version	1	56.0.0.1-a2					gateway.	
System	•	Hardware Versio	n	V1.0					Firmware Version Show the current firmware	
		Local Time		2022-08-10	16:31:28 Wednesd	lay			version of gateway.	
Maintenance	•	Uptime		03:10:23					Hardware Version Show the current	
APP	•	CPU Load		6%					hardware version of gateway.	
		RAM (Available/0	Capacity)	194MB/512	2MB (37.89%)				Local Time	
		eMMC (Available	/Capacity)	6.2GB/7.00	GB (88.46%)				Show the current local time of system.	
						Manual F	Refresh V	resh	Uptime Show the information on how long the gateway has been running.	

5. Network Connection

This section explains how to connect the gateway to network via WAN connection, Wi-Fi or cellular.

5.1 Configure the Ethernet Connection

1. Go to **Network > Interface > Port** page to select the connection type and configure Ethernet port information, click "Save & Apply" for changes to take effect.

PortWLANCellularLoopbackVLAN Trunk- Port_1PortPortConnection TypeIP AddressIP AddressGatewayGatewayITUITONPrimary DNS ServerSecondary DNS Server					
Port_1Porteth 0 <	Port	WLAN	Cellular	Loopback	VLAN Trunk
Port_1 Port eth 0 ✓ Connection Type Static IP ✓ IP Address 192.168.45.190 Netmask 255.255.0 Gateway 192.168.45.1 MTU 1500 Primary DNS Server 8.8.8.8 Secondary DNS Server []					
Porteth 0Connection TypeStatic IPIP Address192.168.45.190Netmask255.255.255.0Gateway192.168.45.1MTU1500Primary DNS Server8.8.8Secondary DNS Server	- Port_1				
Connection TypeStatic IPIP Address192.168.45.190Netmask255.255.255.0Gateway192.168.45.1MTU1500Primary DNS Server8.8.8.8Secondary DNS Server	Port			eth 0	~
IP Address192.168.45.190Netmask255.255.255.0Gateway192.168.45.1MTU1500Primary DNS Server8.8.8Secondary DNS Server	Conne	ection Type		Static IP	~
Netmask255.255.255.0Gateway192.168.45.1MTU1500Primary DNS Server8.8.8.8Secondary DNS Server	IP Add	Iress		192.168.45.190	
Gateway192.168.45.1MTU1500Primary DNS Server8.8.8Secondary DNS Server	Netma	ask		255.255.255.0	
MTU 1500 Primary DNS Server 8.8.8.8 Secondary DNS Server	Gatew	vay		192.168.45.1	
Primary DNS Server 8.8.8.8 Secondary DNS Server	MTU			1500	
Secondary DNS Server	Primar	ry DNS Server		8.8.8	
	Secon	dary DNS Server			
Enable NAT	Enable	e NAT			

Note: If there is IP conflict when changing the IP address of Ethernet port, please change the subnet of WLAN first.

Port	WLAN	Loopback	VLAN Trunk
WLAN			
Enable			
Work Mode		AP	~
100			
IP Setting			
Protocol		Static IP	~
IP Address		192.168.10.1	
		DHCP Settings	
Netmask		255,255,255	0

2. Connect Ethernet port of gateway to devices like router or modem.

3. Go to Maintenance > Tools > Ping to check network connectivity.

Network Server	<u> </u>	Ping Trace	eroute	Qxdmlog					
Protocol Integration) IF	• Ping Host	www.googl	e.com	Ping	Stop			
Network	•	PING www.google.com (172.217.25.4): 56 data bytes 64 bytes from 172.217.25.4 seq=0 ttl=117 time=20.090 ms							
System	•	64 bytes from 172.217.25.4: seq=1 ttl=117 time=19.786 ms 64 bytes from 172.217.25.4: seq=2 ttl=117 time=19.797 ms 64 bytes from 172.217.25.4: seq=3 ttl=117 time=19.750 ms							
Maintenance	•	www.google.com ping statistics 4 packets transmitted, 4 packets received, 0% packet loss							
Tools		round-trip min/avg/m	ax = 19.750/19	855/20.090 ms					

5.2 Configure the Cellular Connection (Cellular Version Only)

1. Go to **Network > Interface > Cellular > Cellular Setting** page to enable cellular settings and configure the necessary cellular info of the SIM card, then click "Save" and "Apply" for changes to take effect.

Cellular Setting		
Enable		
Network Type	Auto	~
APN		
Username		
Password		
Access Number		
PIN Code		
Authentication Type	None	~
Roaming		
Customize MTU		
MTU	1500	
Enable IMS		
SMS Center		

2. Go to **Status > Cellular** page to view the status of the cellular connection. If it shows "Connected", it means the SIM has dialed up successfully.

Overview	Packet Forward		Cellular	Network	WLAN
Modem					
Status		Ready			
Model		EC25			
Version		EC25E	CGAR06A07M	1G	
Signal Level		23asu	(-67dBm)		
Register Status		Registe	ered (Home net	work)	
IMEI		860425	047368939		
IMSI		460019	425301842		
ICCID		898601	178380099341	20	
ISP		CHN-U	NICOM		
Network Type		LTE			
PLMN ID					
LAC		5922			
Cell ID		340db8	13		
Network					
Status		Conne	cted		
IP Address		10.132	.132.59		
Netmask		255.25	5.255.240		
Gateway		10.132	132.60		

5.3 Configure the Wi-Fi Connection

1. Go to **Network > Interface > Port** page to select connection type as **Static IP** and configure an IP address for the Ethernet WAN port.

Status	Port	WLAN	Cellular	Loopback	VLAN Trunk	
Packet Forwarder	- Port_1					
Network Server	Port			eth 0	~	
Protocol Integration	Conne IP Add	ction Type ress		Static IP 192.168.23.150	~	
Network 🔻	Netma	sk		255.255.255.0		
	Gatewa	ay		192.168.23.1		
птегтасе	MTU			1500		
Firewall	Primar	y DNS Server		8.8.8		
DHCP	Second	dary DNS Server		223.5.5.5		
DDNS	Enable	NAT				

- 2. Connect PC to UG56 ETH port directly or through PoE injector.
- 3. Assign the IP address to computer manually. Take Windows 10 system as an example:

nternet Protocol Version 4 (TCP	P/IPv4) Properties	×
General		
You can get IP settings assigned this capability. Otherwise, you r for the appropriate IP settings.	d automatically if your network supports need to ask your network administrator	
O Obtain an IP address auto	matically	
• Use the following IP addres	ss:	
IP address:	192 . 168 . 23 . 200	
Subnet mask:	255 . 255 . 255 . 0	
Default gateway:	192 . 168 . 23 . 150	
Obtain DNS server address	s automatically	
• Use the following DNS serv	ver addresses:	
Preferred DNS server:	8.8.8.8	
Alternative DNS server:		
Validate settings upon exi	it Advanced	

- 4. Open a Web browser and type in the IP address of the Ethernet port to access the web GUI.
- 5. Go to Network > Interface > WLAN and click Scan to search for WiFi access point.

Port	WLAN		Cellular	Loo	oback			
< GoBack								
SSID		Channel	Signal	Cipher	BSSID	Security	Frequency	
AAA		Auto	-61dBm	AES	24:e1:24:f0:c4:13	WPA-PSK/WPA2-PSK	2412MHz	Join Network

6. Select one access point and click Join Network, then type the password of the access point.

Port	WLAN	Cellular	Loopback		
WLAN					
Enable					
Work Mode		Client		~	Scan
SSID		AAA			
BSSID		24:e1:24:	f0:c4:13		
Encryption	Mode	WPA-PS	K/WPA2-PSK	~	
Cipher		AES		~	
Key		•••••			
IP Setting					
Protocol		DHCP C	lient	~	

Click **Save** and **Apply** buttons after all configurations are done.

7. Go to **Status > WLAN** to check the connection status of the client. If it shows "Connected", it means gateway connects to Wi-Fi successfully.

WLAN Status	
Wireless Status	Enabled
MAC Address	24:e1:24:f0:de:14
Interface Type	Client
SSID	AAA
Channel	Auto
Encryption Type	WPA-PSK/WPA2-PSK
Cipher	AES
Status	Connected
IP Address	192.168.1.145
Netmask	255.255.255.0
Connection Duration	0 days, 02:44:45

8. Go to **Network > Failover > WAN Failover** to switch the wlan0 as main interface, then gateway can use the Wi-Fi to access the network.

	SLA Tra	ack WAN F	ailover				
Network 🔻	WAN Failover						
Interface	Main Interface	Backup Interface	Startup Delay(s)	Up Delay(s)	Down Delay(s)	Track ID	Operation
Firewall	wlan0 ~	eth 0 🗸	30	0	0	1 ~	×
DHCP							Ð
DDNS	Save						
Link Failover							

6.Packet Forwarder Configuration

Δ

UG56 has installed multiple packet forwarders including Semtech, Chirpstack, etc. This section explains how to connect the gateway to network servers.

Make sure the gateway connects to the network as shown in <u>Section 5</u>.

1. Go to **Packet Forwarder > General** page and click 🛨 to add a network server.

Status		General	Radios	Advanced	Custom	Traffic		
Packet Forwarder		General Setting						
Network Server		Gateway EUI Gateway ID	24E124FFFE 24E124FFF	EF :				
Network	×	Frequency-Sync	Disabled	1	~			
System	•	Multi-Destination						
		ID	Enable	1	Гуре	Server Address	Connect Status	Operation
Maintenance	0	Enabled	Embe	dded NS	localhost	Connected		
APP	×							Ŧ
		Save & Apply						

2. Fill in the server information and enable this server.

Гуре	Semtech ~
Server Address	eu1.cloud.thethings.network 💌
Port Up	1700
Port Down	1700

3. Go to **Packet Forwarder > Radio** page to configure the center frequency and channels. The channels of the gateway and network server need to be the same.

Region		US915		~
	Name			Center Frequency/MHz
	Radio 0			904.3
	Radio 1			905.0
Multi Channels Settin	g			
Enable	Index	Radio		Frequency/MHz
	0	Radio 0	~	903.9
	1	Radio 0	~	904.1
	2	Radio 0	~	904.3
	3	Radio 0	~	904.5
	4	Radio 1	~	904.7
	5	Radio 1	~	904.9
	6	Radio 1	*	905.1
	7	Radio 1	~	905.3

4. Add the gateway on network server page. For more details about the network server connection please refer to <u>Milesight IoT Support portal</u>.

7.Network Server Configuration

The gateway can work as a LoRaWAN® network server to receive and analyze the data of LoRaWAN® end devices, and then achieve the flexible integration with different systems.



M Make sure the gateway connects to the network as shown in <u>Section 5</u>.

7.1 Connect to Milesight IoT Cloud

1. Go to **Packet Forwarder > General** page to enable the embedded network server.

Status		General	Radios	Advanced	Custom	Traffic		
Packet Forwarder		General Setting						
Natural Occurs		Gateway EUI	24E124FFFE	F'				
Network Server		Gateway ID	24E124FFF	EF				
Network	۲	Frequency-Sync	Disabled	~				
System		Multi-Destination						
oyacin		ID	Enable	Type		Server Address	Connect Status	Operation
Maintenance	►	10	Chable	1350		Server Address	Connect Status	
		0	Enabled	Embedde	d NS	localhost	Connected	
APP								H

2. Go to Packet Forwarder > Radio page to select center frequency and channels. The channels of the gateway and the end devices need to be the same.

Region		US915		~
	Name			Center Frequency/MHz
	Radio 0		9	04.3
	Radio 1		9	05.0
Multi Channels Settin	g			
Enable	Index	Radio		Frequency/MHz
	0	Radio 0	~	903.9
	1	Radio 0	~	904.1
	2	Radio 0	~	904.3
	3	Radio 0	~	904.5
	4	Radio 1	~	904.7
	5	Radio 1	*	904.9
	6	Radio 1	*	905.1
	7	Radio 1	~	905 3

3. Go to **Network Server > General** page to enable the network server and "Milesight IoT Cloud" mode. Note: after this mode is enabled, the other settings of network server will be not allowed to edit.

Status	General	Applications	Profiles	Device	Multicast Groups
Packet Forwarder	General Setting				
Network Server	Enable Platform Mode	2			
Network		Milesigh	t IoT Cloud	~	
	NetID	010203			
System	Join Delay	5		sec	
	RX1 Delay	1		sec	
Maintenance •	Lease Time	8760-0-0		hh-mm-ss	

4. Log in the Milesight IoT Cloud. Then go to **My Devices** page and click "+New Devices" to add gateway to Milesight IoT Cloud via SN. Gateway will be added under "Gateways" menu.

② Dashboard	Devices Gateway	ys Hi	story +			
My Devices	Search Q	\odot	Normal 1	ne 1 🛞 Inactive 3		+ New Devices
Map	□ ⊗ <u>真实设备-EN</u> 6136A39023	Add Device		×	e.	@ <u>M</u> @
Reports	□ ⊗ UC3X52-虚 61151109	* SN :		sociated with your		<u>۵ א</u>
Event Center 30	UC3X5 6123A124	* Name :			15 minutes ago	<u>ه ۲۸</u>
Q ме	AM102- 6128A21755000	CO2	Cancel Confin TVOC Barometric Pr	m unation	a few seconds ago	© <u>~</u> ©
_	A	27℃ Temperature	51% 0 Humidity Activity Level	2lux (PIR) Illumination		
=						

5. The gateway is online on Milesight IoT Cloud.

🕐 Dashboard	Devices	Gateways	+		
My Devices	Search	Q	⊘ Normal 1 🔊 Offline 0 ⊗ Inactive 0		+ New Devices
🖄 Map	Status	Name	Associated Devices (Joined /Not Joined /Failed)	Last Updated	
Reports	al al	UG Gateway 621793129987	0 / 1 / 0 Detail	2 min <mark>u</mark> tes ago	<u>۵ امر</u>
Event Center 94					

7.2 Add End Devices

1. Go to **Packet Forwarder > General** page to enable the embedded network server.

Status		General	Radios	Advanced	Custom	Traffic		
Packet Forwarder		General Setting						
Network Server		Gateway EUI	24E124FFFE	EF (CIRCLE)				
	_	Gateway ID	24E124FFF	FEF				
Network	•	Frequency-Sync	Disabled		~			
System	•	Multi-Destination						
		ID	Enable	1	vpe	Server Address	Connect Status	Operation
Maintenance	•							
		0	Enabled	Embe	dded NS	localhost	Connected	
APP	•							H

2. Go to **Packet Forwarder > Radio** page to select the center frequency and channels. The channels of the gateway and the end devices need to be the same.

Region		US915		~	
	Name			Center Frequency/MHz	
	Radio 0		904	.3]
	Radio 1		905	.0]
Multi Channels Settin	g				
Enable	Index	Radio		Frequency/	MHz
	0	Radio 0	~	903.9	
	1	Radio 0	~	904.1	
	2	Radio 0	~	904.3	
	3	Radio 0	~	904.5	
	4	Radio 1	~	904.7	
	5	Radio 1	~	904.9	
	6	Radio 1	~	905.1	
	7	Radio 1	~	905.3	

3. Go to **Network Server > General** page to enable the network server mode.

Status		General	Applications	Profiles	Device	Gateways
Packet Forwarder		General Setting				
Network Server		Enable Milesight IoT Cloud				
Network	•	NetID	010203			
		Join Delay	5		sec	
System	•	RX1 Delay	1		sec	
Maintenance		Lease Time	876000-0	I-0	hh-mm-ss	
Maintenance		Log Level	info		~	

4. Go to **Network Server > Application** to add a new application.

A	Applications					
		ID		Name	Description	Operation
		1		Test	Test	2 ×
						±
						/
		Applications				
		Name	cloud			
		Description	cloud			
		Metadata	D			
		Data Transmission				
			Туре		Operation	
					(E)	
		Save Cancel	l			

5. Go to **Network Server > Device** page and click **Add** to add a LoRaWAN[®] end device. You can also click **Bulk Import** to use template to add bulk devices at once.

Add	Bulk Import	Delete All			Search	(
Device Name	Device FUI	Device Profile	Application	Last Soon	Activated	Operation

6. Fill in the information of the end device and click **Save&Apply**. The information can be found on the end device's configuration page or from manufacturer's manuals. Here are the default settings of Milesight end devices:

- Device EUI: this can be found on the device.
- Device-Profile: OTAA type files
- Payload Codec: select the model
- fPort: 85
- Application Key: select Default Value. If you use random keys, please select Custom Value.

Device Name	lora-sensor
Description	a short description of your node
Device EUI	000000000000000
Device-Profile	ClassA-OTAA
Application	cloud
Payload Codec	
Port	1
Frame-counter Validation	
Application Key	●Default Value〇Custom Value
Device Address	
Network Session Key	
Network Session Key Application Session Key	
Network Session Key Application Session Key Uplink Frame-counter	0
Network Session Key Application Session Key Uplink Frame-counter Downlink Frame-counter	
Network Session Key Application Session Key Uplink Frame-counter Downlink Frame-counter	

7. Go to **Network Server > Packets** page to check the packets from LoRaWAN[®] end devices. The type starts from "Up" means uplinks and "Dn" means downlinks.

Network Server									
Clear								Search	O,
Device EUI/Group	Gateway ID	Frequency	Datarate	RSSI/SNR	Size	Fcnt	Туре	Time	Details
24E12	24E124	868300000	SF7BW125	-44/14.5	23	678	UpUnc	2025-04-03 10:09:25+08:00	0
24E12	24E124	868500000	SF7BW125	-44/10.2	23	677	UpUnc	2025-04-03 10:08:25+08:00	0
24E12	24E124	868100000	SF7BW125	-53/14.0	10	289	UpUnc	2025-04-03 10:07:46+08:00	0
24E12	24E124	868100000	SF7BW125	-39/14.2	23	676	UpUnc	2025-04-03 10:07:25+08:00	0
24E12	24E124	868100000	SF7BW125	-40/13.8	23	675	UpUnc	2025-04-03 10:06:25+08:00	0
24E12	24E124	868100000	SF7BW125	-40/14.0	23	674	UpUnc	2025-04-03 10:05:25+08:00	0
24E12	24E124	868500000	SF7BW125	-40/11.5	23	673	UpUnc	2025-04-03 10:04:25+08:00	0
24E12	24E124	868300000	SF7BW125	-49/13.8	18	0	JnReq	2025-04-03 10:04:16+08:00	0

Click **Details** to check the properties and payload contents of packets.

Packet Details		×
Danuwiutin	120	
SpreadFactor	7	
Bitrate	0	
CodeRate	4/5	
SNR	13.5	
RSSI	-54	
Power		
Payload(b64)	AXVjA2fqAARoPA==	
Payload(hex)	0175630367ea0004683c	
JSON	{ "battery": 99, "humidity": 30, "temperature": 23.4 }	
MIC	7f3664cd	

7.3 Connect to MQTT/HTTP Server

The gateway supports choosing the data transport protocol to send the data of device within this application to third-party servers. One application supports to add a MQTT transmission or a HTTP (HTTPS) transmission at most.

1. Go to Network Server > Application to select the application to edit.

2. Click to add a data transmission type.

HTTP or HTTPS:

Step 1: select HTTP or HTTPS as transmission protocol.

UTTD	-
	HTTP

Step 2: Enter the destination URL. Different types of data can be sent to different URLs.

Data Type	URL
Uplink data	
Join notification	
ACK notification	
Error notification	

Enter the header name and header value if there is user credentials when accessing the HTTP(s) server.

ITTP Header				
	Header Name	Header Value	Operation	
[×	
			H	

MQTT:

Step 1: select the transmission protocol as MQTT.

Step 2: Fill in MQTT broker general settings.

Туре	MQTT	~
Status	-	
General		
Broker Address		
Broker Port		
Client ID		
Connection Timeout/s	30	
Keep Alive Interval/s	60	
Data Retransmission		

Step 3: Select the authentication method required by the server.

If you select user credentials for authentication, you need to enter the username and password for authentication.

User Credentials	
Enable	
Username	
Password	

If certificate is necessary for verification, please select mode and import CA certificate, client certificate and client key file for authentication.

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TLS				
Enable				
Mode	Self signed certificates	¥		
CA File		Browse	Import	Delete
Client Certificate File		Browse	Import	Delete
Client Key File		Browse	Import	Delete

Step 4: Enter the topics to receive data or send downlinks, and choose the QoS.

Topic				
	Data Type	topic	Retain	
	Uplink data			QoS 0 🗸
	Downlink data			QoS 0 🗸
	Multicast downlink data			QoS 0 🗸
	Join notification			QoS 0 🗸
	ACK notification			QoS 0 🗸
	Error notification			QoS 0 🗸
	Request data			QoS 0 🗸
	Response data			QoS 0 ~

[END]