

UG65 LoRaWAN Gateway

Quick Start Guide

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Ursalink Technology Co., Ltd.

Welcome

Thank you for choosing Ursalink UG65 LoRaWAN Gateway.

This guide teaches you how to install the UG65 and how to log in the web GUI to configure the device. Once you complete the installation, refer to the Ursalink UG65 User Guide for instructions on how to perform configurations on the device.

Related Documents

This Quick Start Guide only explains the installation of Ursalink UG65 LoRaWAN Gateway. For more functionality and advanced settings, please refer to the relevant documents as below.

Document	Description	
Ursalink UG65 Datasheet	Datasheet for the Ursalink UG65 LoRaWAN Gateway.	
Ursalink UG65 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 Ursalink website: <u>https://www.ursalink.com</u>.

Declaration of Conformity

UG65 is in conformity with the essential requirements and other relevant provisions of the CE, FCC, and RoHS.





For assistance, please contact Ursalink technical support: Email: support@ursalink.com Tel: 86-592-5023060 Fax: 86-592-5023065

Revision History

Date	Doc Version	Description
August 31, 2020	V1.0	Initial version



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Ursalink UG65 Quick Start Guide

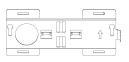
1. Packing List

Before you begin to install the UG65 LoRaWAN Gateway, please check the package contents to verify that you have received the items below.









1 × UG65

1 × Ethernet Cable

1 × DC Jack Power Adapter

1 × Mounting Bracket







Bracket Fixing Screws

Wall Mounting Kits

1 × Warranty Card

1 × LoRa Antenna (Optional)

& Grounding Screw



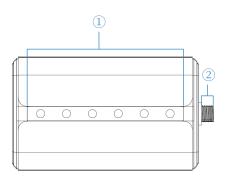
If any of the above items is missing or damaged, please contact your Ursalink sales representative.



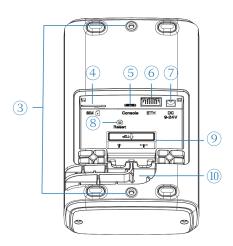
2. Hardware Introduction

2.1 Overview

A. Front Panel



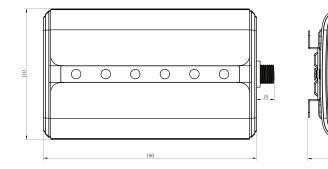
B. Rear Panel

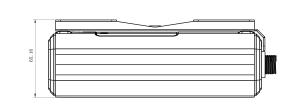


LED Area
 POWER: Power Indicator
 STATUS: System Indicator
 LoRa: LoRa Indicator
 Wi-Fi: Wi-Fi Indicator
 UTE: Cellular Indicator
 ETH: Ethernet Port Indicator
 LoRa Antenna Connector
 (only for external antenna version)

- ③ Bracket Mounting Screws
- ④ SIM Slot
- 5 Type-C Port
- 6 Ethernet Port (PoE)
- ⑦ Power Connector
- 8 Reset Button
- (9) Waterproof Silicone
- (1) Cable Groove

2.2 Dimensions (mm)







2.3 LED Indicators

LED	Indication	Status	Description
POWER	Power Status	Off	The power is switched off
POWER	Power Status	On	The power is switched on
STATUS	System Status	Blue Light	Static: the system is running properly
JIAIOJ	System Status	Red Light	The system goes wrong
LoRa	LoRa Status	Off	Packet Forwarder mode is running off
LUKd	LORA SIALUS	Blue Light	Packet Forwarder mode is running well
Wi-Fi	Wi-Fi Status	Off	Wi-Fi is disabled
VVI-FI	VVI-FI Status	Blue Light	Wi-Fi is enabled
		Off	SIM card is registering or fails to register
		OII	(or there are no SIM cards inserted)
			Blinking slowly: SIM card has been registered and is
LTE	Cellular Status		ready for dial-up
	Cellular Status	Blue Light	Blinking rapidly: SIM card has been registered and
		Dide Light	is dialing up now
			Static: SIM card has been registered and dialed up
			successfully
ETH	Ethernet	Off	Disconnected
	Port Status	Blue Light	Static: Connected

2.4 Reset Button

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



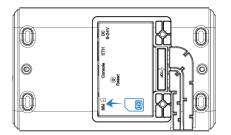
3. Hardware Installation

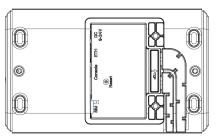
3.1 SIM Card Installation

UG65 does not support hot plugging (also called hot swapping). please turn off the power before you insert or take off cards.

A. Use screwdriver to open the protective cover on the back panel of UG65.

B. Insert the SIM card into the device according to the direction icon on the device. **Note:** If you need to take out the SIM card, press into the SIM card and it will pop up automatically.

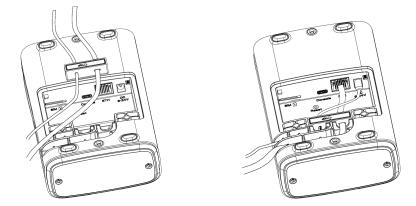




3.2 Ethernet Cable & Power Cable Installation

A. Connect the Ethernet cable and power cable to corresponding interfaces.

- B. Pass two cables through the waterproof silicone and slid into the grooves.
- C. Screw the protective cover back to the device.

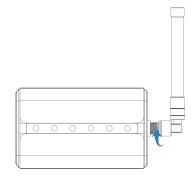


UG65 also supports 802.3af standard PoE and can be powered by PoE switch or PoE adapter. When connecting, Ethernet cable of UG65 device side should be installed first, otherwise, PoE devices or gateway may be damaged.

3.3 Antenna Installation

For external antenna version, rotate the antenna into the antenna connector accordingly. The external antenna should be installed vertically always on a site with a good signal.





3.4 Gateway Mounting

The gateway can be mounted to a wall or a pole. Please complete all software configurations before installation.

3.4.1 Wall Mounting

Preparation: mounting bracket, bracket fixing screws, grounding screw, wall plugs, wall mounting screws and other required tools.

1. Before you start, make sure that your SIM card has been inserted, your antennas have been attached and all cables have been installed.

Note: Do not connect device to power supply or other devices.

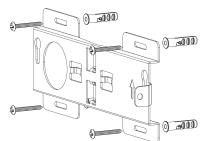
2. Align the mounting bracket horizontally to the desired position on the wall, use a marker pen to mark four mounting holes on the wall, and then remove the mounting bracket from the wall.

Note: The connecting lines of adjacent points are at right angles.

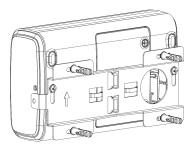
3. Drill four holes with a depth of 32 mm by using your drill with a 6 mm drill bit on the positions you marked previously on the wall.

4. Insert four wall plugs into the holes respectively.

5. Mount the mounting bracket horizontally to the wall by fixing the wall mounting screws into the wall plugs.

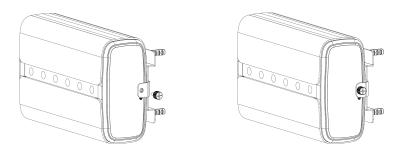


6. Screw the bracket fixing screws to the back panel of device, then hang the device to the mounting bracket on the wall.





7. Screw the grounding screw to fix UG65 to the mounting bracket.



3.4.2 Pole Mounting

Preparation: mounting bracket, bracket fixing screws, hose clamp and other required tools.

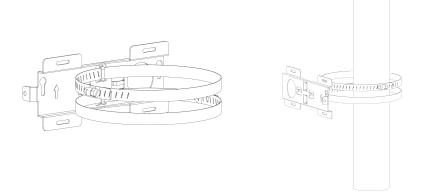
1. Before you start, make sure that your SIM card has been inserted, your antennas have been attached and that all cables have been installed.

Note: Do not connect device to power supply or other devices.

2.Loosen the hose clamp by turning the locking mechanism counter-clockwise.

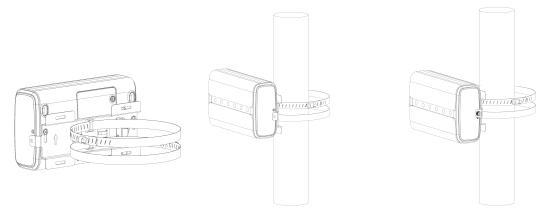
3.Straighten out the hose clamp and slide it through the rectangular rings in the mounting bracket, wrap the hose clamp around the pole.

4.Use a screwdriver to tighten the locking mechanism by turning it clockwise.



5. Screw the bracket fixing screws to the back panel of device, then hang the device to the mounting bracket on the pole.

6. Screw the grounding screw to fix UG65 to the mounting bracket.





4.Access the Web GUI of UG65

Ursalink UG65 provides web-based configuration interface for management. If this is the first time you configure the gateway, please use the default settings below:

ETH IP Address: **192.168.23.150** Wi-Fi IP Address: **192.168.1.1** Wi-Fi AP: **Ursalink_******* Username: **admin** Password: **password**

4.1 Web GUI Access via Wi-Fi

A. Choose the wireless network Ursalink_****** from the list and click Connect.

B. 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.

C. Enter the username and password, click "Login".

	☆ 💁 해 🤋 🍁
	English
Password	
	Usemame

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

D. When you log in with the default username and password, you will be asked to change password. It's suggested that you change the password for the sake of security. Click "Cancel" button if you want to modify it later.

E. After you log in the Web GUI, you can view system information and perform configuration of the gateway.

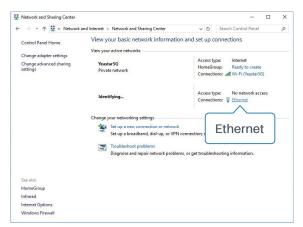


			F	or your device security,	please change the c	lefault password			
Status		Overview	Packet Forward	Cellular	Network	WLAN	VPN	Host List	Help
Status									Model
Packet Forwarder		System Informa	ation						Show the model name of router.
		Model		UG65-L00E-W-P-C	N470				Serial Number
Network Server		Serial Number		6221A2254974					Show the serial number of router.
		Firmware Versior	ì	60.0.0.11					Firmware Version
Network	•	Hardware Version	n	V1.0					Show the current firmware version of router.
System		Local Time		2020-08-18 17:33:1	2 Tuesdav				Hardware Version
oystem		Uptime		03:14:23					Show the current hardware version of router.
Maintenance	•	CPU Load		7%					Local Time
									Show the current local time of system.
APP	•	RAM (Capacity/A	vailable)	512MB/128MB(259	6)				
		eMMC (Capacity	/Available)	3.0G/2.8G(90.89%)					Uptime Show the information on how long the router has been running.
							Manual R	afresh 🗸 🛛 Refresh	CPU Load
									Show the current CPU

4.2 Web Access via Ethernet Port

Connect PC to UG65 ETH port directly or through PoE adapter. The following steps are based on Windows 10 operating system for your reference.

A. Go to "Control Panel" \rightarrow "Network and Internet" \rightarrow "Network and Sharing Center", then click "Ethernet" (May have different names).



B. Go to "Properties" \rightarrow "Internet Protocol Version 4(TCP/IPv4) "and select "Use the following IP address", then assign a static IP manually within the same subnet of the gateway.

General					
this cap	n get IP settings assigr pability. Otherwise, you appropriate IP setting	u need to ask your i			
00	btain an IP address au	tomatically			
OU	se the following IP add	ress:			
IP ac	ddress:	192 . 16	8.23	, 200	
Subr	net mask:	255 . 25	55.255	i. O	
<u>D</u> efa	ault gateway:	192 . 16	8 . 23	. 150	
00	<u>b</u> tain DNS server addre	ess automatically			
OU	se the following DNS se	erver addresses:			
Pref	erred DNS server:	8.8	8.8	. 8	
Alter	mative DNS server:		(1)		
	alidate settings upon e	exit	ĩ	Advance	·d



C. 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.

D. Enter the username and password, click "Login".

C URSALINK	× +		- 0 :
← → C (i) Not sec	ure 192.168.23.150/login.html		☆ (**) 🚺
			English
		Lusername	
		Password	
		Login	

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

E. When you log in with the default username and password, you will be asked to change password. It's suggested that you change the password for the sake of security. Click "Cancel" button if you want to modify it later.

Old Password	
New Password	
Confirm New Password	
	,

F. After you log in the Web GUI, you can view system information and perform configuration of the gateway.

			F	or your device security	please change the d	lefault password			
Status		Overview	Packet Forward	Cellular	Network	WLAN	VPN	Host List	Help
512103		-							Model
Packet Forwarder		System Informa	ation						Show the model name of router.
		Model		UG65-L00E-W-P-C	N470				Serial Number
Network Server		Serial Number		6221A2254974					Show the serial number of router.
		Firmware Versior	1	60.0.0.11					Firmware Version
Network	•	Hardware Version	n	V1.0					Show the current firmware version of router.
System		Local Time		2020-08-18 17:33:	12 Tuesday				Hardware Version
cystem	100	Uptime		03:14:23					Show the current hardware version of router.
Maintenance									Local Time
		CPU Load		7%					Show the current local time
APP		RAM (Capacity/A	vailable)	512MB/128MB(259	%)				of system.
		eMMC (Capacity	(Available)	3.0G/2.8G(90.89%)				Uptime
				×.					Show the information on how long the router has been running.
							Manual Re	fresh 🗸 Refresh	CPU Load
								4	Show the current CPU



5.Connect UG65 to the Netowork

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

5.1 Configure the WAN Connection

A. Go to "Network" \rightarrow "Interface" \rightarrow "Port" page to select the connection type and configure Ethernet port information.

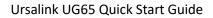
B. Click "Save & Apply" for changes to take effect.

Port WLAN	Cellular Loopback		
- Port_1			
Enable			
Port	eth 0		
Connection Type	Static IP 🗸		
IP Address	192.168.23.64		
Netmask	255.255.255.0		
Gateway	192.168.23.1		
MTU	1500		
Primary DNS Server	8.8.8.8		
Secondary DNS Server	114.114.114.114		
Enable NAT			
Multiple IP Address			
IP A	ddress	Netmask	Operation
			8

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

D. Log in the web GUI via the newly assigned IP address and go to "Status" \rightarrow "Network" to check Ethernet port status.

Overview	Ρ	acket Forward	Cellular	Network	WLAN	VPN	Host List
WAN							
Port	Status	Туре	IP Address	Netmask	Gateway	DNS	Duration
eth 0	up	Static	192.168.23.64	255.255.255.0	192.168.23.1	8.8.8.8	03h 12s





5.2 Configure the Wi-Fi Connection

A. Go to "Network" \rightarrow "Interface" \rightarrow "WLAN" and select "Client" mode.

B. Click "Scan" to search for Wi-Fi access point. Select the available one and click "Join Network".

Port	WLAN		Cellular	Loo	pback			
< GoBack								
SSID		Channel	Signal	Cipher	BSSID	Security	Frequency	
Ursalink_F0D0	CAF	Auto	-68dBm	Auto	24:e1:24:f0:dc:af	No Encryption	2437MHz	Join Network
Ursalink_F0C	422	Auto	-6 <mark>4</mark> dBm	Auto	24:e1:24:f0:c4:22	No Encryption	2437MHz	Join Network
Ursalink_F0DB	E8C	Auto	-66dBm	Auto	24:e1:24:f0:de:8c	No Encryption	2462MHz	Join Network

C. Type the key of Wi-Fi.

Port	WLAN	Cellular	Loopback		
Enable					
Work Mode		Client		~	Scan
SSID		Ursalink_	Tec		
BSSID		24:e1:24	:f0:2c:4b		
Encryption M	Mode	WPA-PS	SK/WPA2-PSK	~	
Cipher		AES		~	
Key		••••••			
IP Setting					
Protocol		DHCP C	Client	~	

D. Go to "Status" \rightarrow "WLAN" to check Wi-Fi status. If it shows "Connected", it means gateway connects to Wi-Fi successfully.



Overview	Packet Forward	Cellular	Network	WLAN
WLAN Status				
Wireless Status	Enabled			
MAC Address	24:e1:24:f0):c4:34		
Interface Type	Client			
SSID	Ursalink_T	ec		
Channel	Auto			
Encryption Type	WPA-PSK/	WPA2-PSK		
Cipher	AES			
Status	Connected	R.		
IP Address	192.168.25	50.146		
Netmask	255.255.25	5 <mark>5.</mark> 0		
Connection Duration	0 days, 00:	00:05		

5.3 Configure the Cellular Connection

- A. Go to "Network" \rightarrow "Interface" \rightarrow "Cellular" \rightarrow "Cellular Setting" page to enable cellular settings.
- B. Choose relevant network type and fill in SIM card information like APN or PIN code.
- C. Click "Save" and "Apply" for changes to take effect.

Port	WLAN	Cellular	Loopback
Cellular Se	etting		
Enable			
Network Ty	pe	Auto	~
APN			
Username			
Password			
Access Nu	mber		
PIN Code			
Authenticat	ion Type	Auto	~
Roaming			
SMS Cente	er		
Connectio	n Setting		
Enable NA	Г		



D. Go to "Status" \rightarrow "Cellular" page to view the status of the cellular connection. If it shows "Connected", it means the SIM has dialed up successfully. On the other hand, you can check the status of LTE indicator. If it keeps on green light statically, it means SIM has dialed up successfully.

Overview	Packet Forward	Cellular	Network	WLAN			
Modem							
Status		Ready					
Model		EC25					
Version		EC25ECGAR06A07M	1G				
Signal Level		23asu (-67dBm)					
Register Status		Registered (Home net	work)				
IMEI		860425047368939					
IMSI		460019425301842					
ICCID		898601178380099341	120				
ISP		CHN-UNICOM					
Network Type		LTE					
PLMN ID							
LAC		5922					
Cell ID		340db83					
Network							
Status		Connected					
IP Address		10.132.132.59					
Netmask		255.255.255.240					
Gateway		10.132.132.60					



6.Packet Forwarder Configuration

UG65 has embedded multiple packet forwarders like TTN and Chirpstack. This section explains how to connect the gateway to third-party network servers.

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

A. Go to "Packet Forwarder" \rightarrow "General" page and click \pm to add a network server.

Status		General	Radios	Advanced		Custom	Traffic	
Packet Forwarder		General Setting						
Network Server		Gateway EUI Gateway ID	24E124FFFE 24E124FFF					
Network	•	Frequency-Sync	Disabled		•			
System	•	Multi-Destination						
Maintenance	•	ID		Enable		Туре	Server Address	Operatio n
		0		Enabled		Ursalink	localhost	
APP	•	1		Disabled		TTN	2	2 ×
		2		Disabled		Semtech	router.cn.thethings.net work	e x
								Ð

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

Note: When you select any of TTN or Chirpstack, other servers are not allow to enable.

Туре	Semtech •	
Server Address	router.eu.thethings.network	
Port Up	1700	
Port Down	1700	

C. Go to "Packet Forwarder" \rightarrow "Radio" page to configure antenna transmission type, center frequency and channels. The channels of the gateway and network server need to be the same.

Note: for built-in antenna models, please select "2 × Built-in ANT"; for external antenna models, please select "Ext ANT(TX+RX)+ Built-in ANT(RX)".



General	Radios	Advanced	Custom T	raffic		
Antenna Type			2 x Built-in ANT		~	
Radio Channe	I Setting					
Supported Freq	quency		CN470		~	
		Name			Center Frequency/MHz	
		Radio 0			472.3	
		Radio 1			472.9	
Multi Channel	s Setting					
Enabl	le	Index	Radio		Frequency/MHz	
_					174.0	_
Image: A start and a start		0	Radio 0	~	471.9	
		0 1	Radio 0	~	471.9	
		1	Radio 0	~	472.1	
2		1 2	Radio 0 Radio 0	~	472.1 472.3	
0 0 0		1 2 3	Radio 0 Radio 0 Radio 0	> > >	472.1 472.3 472.5	
		1 2 3 4	Radio 0 Radio 0 Radio 0 Radio 1	> > >	472.1 472.3 472.5 472.7	

D. Add the gateway on network server page. Take TTN for example, type and save the gateway EUI and other information when you connect it via Semtech packet forwarder. After you add the gateway, TTN will show connection status.

ateway EUI		
he EUI of the gateway as read from the LoF	Ra module	
24 E1 24 FF FE TM 19		👩 8 byti
I'm using the legacy packet forward in the legacy packet for the		
Select this if you are using the legacy Se		
Select this if you are using the legacy <u>Se</u>		
	emtech packet forwarder.	
Select this if you are using the legacy Se	emtech packet forwarder.	

E. Go to "Traffic" page to view the data communication of UG65.

General	Rad	dios Adv	vanced	Custom	Traffic			
Traffic Setti								
Stop	Direction	Clear	Ticks	Frequency	Datarate	Coderate	RSSI	SNR
Ricii	Direction	Time	317882157	Frequency	Datalate	Coderate	KJJI	SMR
1	ир	11:52:38	1	865.985	SF7BW125	4/5	-91	5.0
1	up	11:52:22	316226269 2	866.585	SF7BW125	4/7	-108	-11.8
0	down	117-1	311888813 1	865.0625	SF7BW125	4/5	17	a.
0	up	11:51:37	311788813 1	865.0625	SF7BW125	4/5	-95	-0.8



7. Network Server Configuration

UG65 can work as network server and transmit data to Ursalink Cloud or other platform via MQTT/HTTP/HTTPS.



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

7.1 Connect UG65 to Ursalink Cloud

A. Go to "Packet Forwarder" \rightarrow "General" page to enable the "Ursalink" type server.

Status		General	Radios	Advanced		Custom	Traffic	
Packet Forwarder		General Setting						
Network Server		Gateway EUI Gateway ID	24E124FFF 24E124FF					
Network	۲	Frequency-Sync	Disabled		Ŧ			
System	×	Multi-Destination						
Maintenance	•	ID		Enable		Туре	Server Address	Operation
		0		Enabled		Ursalink	localhost	
APP	•							
		Save & Apply						

B. Go to "Packet Forwarder" \rightarrow "Radio" page to select the antenna transmission type, center frequency and channels. The channels of the gateway and LoRaWAN nodes need to be the same.

Note: for built-in antenna models, please select "2 × Built-in ANT"; for external antenna models, please select "Ext ANT(TX+RX)+ Built-in ANT(RX)".

General	Radios	Advanced	Custom Tr	raffic			
Antenna Type			2 x Built-in ANT		~		
Radio Channe	el Setting						
Supported Freq	quency		CN470		~		
		Name			Center Frequency/MHz		
		Radio 0			472.3		
		Radio 1			472.9		
Multi Channel	ls Setting						
F 1							
Enabl	le	Index	Radio		Frequency/MHz		
		Index 0	Radio 0	~	Frequency/MHz 471.9]	
				~]	
		0	Radio 0		471.9]]	
0		0 1	Radio 0 Radio 0	~	471.9]]]	
		0 1 2	Radio 0 Radio 0 Radio 0	~	471.9 472.1 472.3]]]]]	
		0 1 2 3	Radio 0 Radio 0 Radio 0 Radio 0	× ×	471.9 472.1 472.3 472.5]]]]]	
		0 1 2 3 4	Radio 0 Radio 0 Radio 0 Radio 0 Radio 1	 <	471.9 472.1 472.3 472.5 472.7		



C. Go to "Network Server" \rightarrow "General" page to enable the network server and Ursalink Cloud mode.

Status		General	Applications	Profiles	Device	Packets
Packet Forwarder		General Setting	l.			
Network Server		Enable Ursalink Cloud				
Network		NetID	010203			
		Join Delay	5		sec	
System	•	RX1 Delay	1		sec	
Maintenance		Lease Time	876000-0-0		hh-mm-ss	
maintenance		Log Level	info	Ŧ		

D. Register and log in the Ursalink Cloud (cloud.ursalink.com).

Salink Cloud							English \vee
					gin with Pas nail Address	মায়ু ssword	
	Ursalink C	loud		Pa	ssword	Forgot Password	
					Log	in Register Now	1
About Us							
Ursalink is a professional IoT compan Copyright 2020 Xlamen Ursalink Tech	ny that leverages the top trending technolo anology Co., Ltd.	gies to simplify the process	of data collection, storage and	d retrieval in order to accompl		ing "things" to Cloud erms of Use Privacy Policy	Cookie

E. Go to "Gateway" page and click "Add" to add a gateway.

C Ursalink Cloud					demo@urs	salink.com 🧕
Ø Dashboard	Add Delete	Refresh			Search	Q
My Devices	🔲 Status 🖨	Name 🖨 Model 🖨	Partnumber 🔶 Serial Number 🛊	Version 🖨	Update Time	Operation
🔛 Gateway		Add Device	×	Firmware:80.0.0.62 Hardware:V1.1	2020-04-28 14:24	(a) >
🖄 Map				Firmware:80.0.0.62 Hardware:V1.1	2020-04-10 14:33	
in Triggers		SN				
Event Center		Name				
 Sharing Center 		(i) Please enable Ursalin	k Cloud mode on gateway first.			
E Device Groups			_			
A Me			Cancel Add			



F. The gateway is online on Ursalink Cloud.

② Dashboard	Add	Delete	Refresh					Search	
My Devices		Status ≑	Name 🖨	Model 💠	Partnumber 🗍	Serial Number 👙	Version	Update Time 👙	Operation
😾 Gateway		\odot	231	UG85-L00E- EU868	L00E-EU868	62179	Firmware:80.0.0.62 Hardware:V1.1	2020-04-28 14:24	(a)
🖄 Map			23	UG85-L01CE- CN470	L01CE-CN470	62179	Firmware:80.0.0.62 Hardware:V1.1	2020-04-10 14:33	(a)

7.2 Connect UG65 to Other Platform

A. Go to "Packet Forwarder" \rightarrow "General" page to enable the "Ursalink" type server.

Status		General	Radios	Advanced		Custom	Traffic	
Packet Forwarder		General Setting						
Network Server		Gateway EUI Gateway ID	24E124FFF					
Network	۲	Frequency-Sync	Disabled		•			
System	Þ	Multi-Destination						
Maintenance	•	ID		Enable		Туре	Server Address	Operation
Maintenance		0		Enabled		Ursalin <mark>k</mark>	localhost	
APP	•							H
		Save & Apply						

B. Go to "Packet Forwarder" \rightarrow "Radio" page to select the antenna transmission type, center frequency and channels. The channels of the gateway and LoRaWAN nodes need to be the same.

Note: for built-in antenna models, please select "2 × Built-in ANT"; for external antenna models, please select "Ext ANT(TX+RX)+ Built-in ANT(RX)".

General	Radios	Advanced	Custom	Traffic		
Antenna Type			2 x Built-in A	NT	~	
Radio Channe	el Setting					
Supported Freq	quency		CN470		~	
		Name			Center Frequency/MHz	
		Radio 0			472.3	
		Radio 1			472.9	
Multi Channel	s Setting					
Enabl	le	Index	Rad	io	Frequency/MHz	
Enabl	le	Index O	Radio 0	io V	Frequency/MHz 471.9	
	le					
	le	0	Radio 0	~	471.9	
0	le	0 1	Radio 0 Radio 0	~	471.9	
	le	0 1 2	Radio 0 Radio 0 Radio 0	 	471.9 472.1 472.3	
	le	0 1 2 3	Radio 0 Radio 0 Radio 0 Radio 0	 <	471.9 472.1 472.3 472.5	
	le	0 1 2 3 4	Radio 0 Radio 0 Radio 0 Radio 0 Radio 1	 <	471.9 472.1 472.3 472.5 472.7	



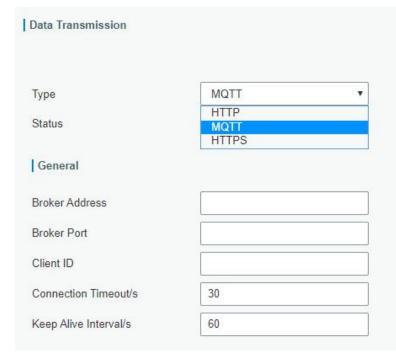
C. Go to "Network Server" \rightarrow "General" page to enable the network server mode.

Status		General	Applications	Profiles	Device	Packets
Packet Forwarder		General Setting				
Network Server		Enable Ursalink Cloud				
Network	•	NetID	010203			
		Join Delay	5		sec	
System	•	RX1 Delay	1		sec	
Maintenance		Lease Time	876000-0-0		hh-mm-ss	
Maintenalice	1940	Log Level	info	•		

D. Go to "Network Server" \rightarrow "Application" to add a new application.

Status	General	Applications	Profiles	Device	Packets
Packet Forwarder	Applications				
	Name	cloud	đ		
Network Server	Description	cloue	đ		
Network 🕨	Payload Codec	Non	e	•	

After saving the application, you can select HTTP, HTTPS or MQTT protocol and fill in correspond server information to send data to another server.





E. Go to "Profiles" page to add a new profile for the device.

	General	Applications	Profiles	Devic	e Pac	kets
	Device Profiles					
	Name	Cla	assA-OTAA			
	Max TXPower	0				
	Join Type	0	TAA	•		
	Class Type	С	lass A	•		
	Advanced					
	Save	Cancel				
General	Applications	Profiles	Device	Packets		
Device Profiles						
	Name	Max TXPower	Join Typ)e	Class Type	Operatio n
	ClassA-OTAA	0	OTAA		Class A	
	ClassC-OTAA	0	OTAA		Class C	2×
						Ð

F. Go to "Device" page and click "Add" to add LoRaWAN node devices.

General	Appli	cations	Profiles	Device	Packe	ts		
1								
Device								
Add	Bulk	Import	Delete All				Search	Q,
Devic	e Name	Device EUI	Device-Profile	Appl	ication	Last Seen	Activated	Operation
			No m	latching recor	ds found			
		_						
		De	vice Name	uc11		٦	×	
			scription		scription of your node			
			vice EUI	000000000				
		De	vice-Profile	ClassA-O	TAA	•		
		Ap	plication	cloud	,	•		
		Fra	ame-counter Validation					
		Ар	plication Key					
		De	vice Address					
		Ne	twork Session Key					
		Ap	plication Session Key					
		Up	link Frame-counter	0				
		Do	wnlink Frame-counter	0				
				Save & Ap	ply			



You can also click "Bulk Import" if you want to add many LoRaWAN nodes all at once.

				×
Import File	Browse	Import	Template Download	

Click "Template Download" to download template file and add LoRaWAN device information to this file. Application and device profile should be the same as you created on web page.

Ì	首页	0040ices_exar	nple∆ • +						
=	文件 ~ 📋 🎾 🖨	₽ 2 4 2 ≠	开始插入了	页面布局 公式	数据审阅	视图 安全	开发工具	特色功能 文档	锄手 Q 查找
におり	▶ ≫ 剪切 ▲		- 11 - A* A - ⊠- ≦- 4 - ≪				常规 ☞ - % ┉	- 日 :05 :00 条件格式	→ 表格样式 → 2
	C13 -	® fx							
		Q JX							
		B	С	D	E	F	G	Н	I
1			C deveui	-	E deviceprofile	F appkey	G devaddr	H appskey	l nwkskey

Import this file to add bulks of devices.

G. Go to "Packets" page to check the packets from LoRaWAN node devices. The type starts from "Up" means uplinks and "Dn" means downlinks.

General	Applications	Profiles		Device	e	Pa	ackets		
Send Data To D	evice								
Devi	ice EUI	Туре			P	ayload		Port	Confirmed
000000000000	0000	ASCII	•						
Network Server	ġ.								
Clear								Search	Q
	l	Datarate	SNR	RSSI	Size	Fcnt	Туре	Search	Q Details
Clear	II Frequency	Datarate SF7BW125	SNR 8.5	RSSI -85	Size 4	Fcnt 14	Type UpUnc		

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



Packets Details		*
Font	14	*
Port	85	
Modulation	LORA	
Bandwidth	125	
SpreadFactor	7	
Bitrate	0	
CodeRate	4/5	
SNR	8.5	
RSSI	-85	
Power	5	
Payload(b64)	A3cYAA==	
Payload(hex)	03771800	
MIC	f5acdeb2	

[END]