



UC11-N1

Quick Start Guide



Welcome

Thank you for choosing Ursalink UC11-N1.

This guide will teach you how to install the UC11-N1 and how to connect to Ursalink Cloud. Once you complete the installation, refer to the Ursalink UC11-N1 User Guide on how to perform configurations on the device.

Related Documents

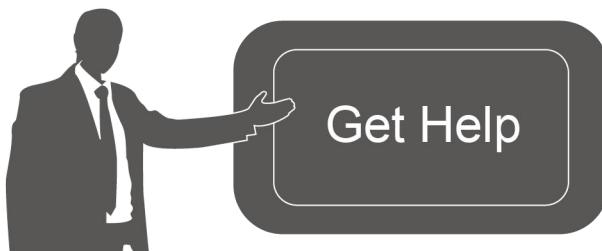
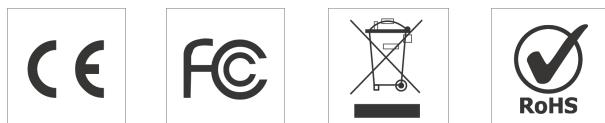
This Start Guide only explains the installation of Ursalink UC11-N1. For more functionality and advanced settings, please refer to the relevant documents as below.

Document	Description
Ursalink UC11-N1 Datasheet	Datasheet for the Ursalink UC11-N1.
Ursalink UC11-N1 User Guide	Users can refer to the guide on how to configure all the settings.

The related documents are available on Ursalink website: <http://www.ursalink.com>.

Declaration of Conformity

Ursalink UC11-N1 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

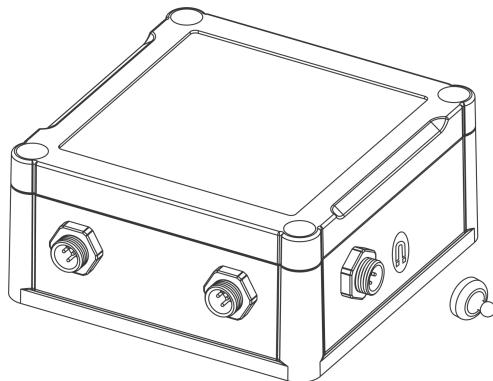
3. Hardware Configuration and Installation

3.1 Turn ON/OFF UC11-N1

Place the magnet on the sign “U” to turn on/off UC11-N1.

Power on: Beep for 2 seconds

Power off: Beep for 6 seconds

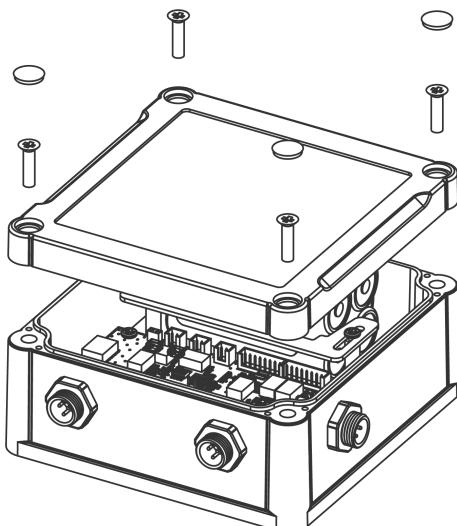


3.2 Hardware Switch

When using the analog input and power output of UC11-N1, you can switch the working mode of hardware interface. Please follow the steps:

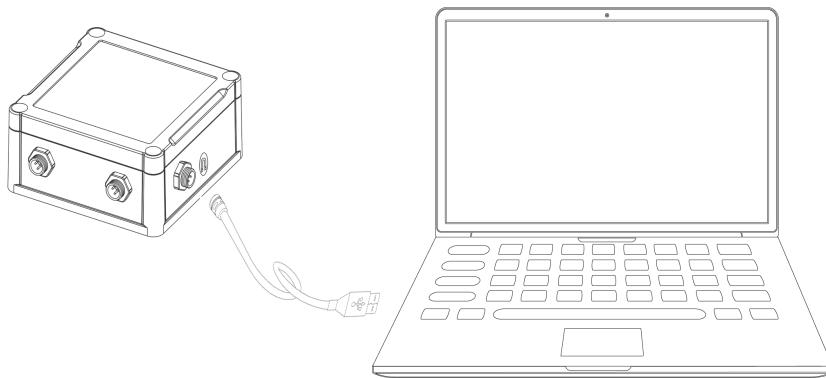
- A. Remove the screw caps and take off the roof cover.
- B. Change DIP switches that are related analog inputs and power outputs as shown in [Section 2.1](#).
- C. Put back the roof cover and screw the screws.

Note: Analog inputs are set to 4-20mA by default, power outputs are set to 12V by default.



3.3 USB Configuration

Connect UC11-N1 to laptop via USB cable.

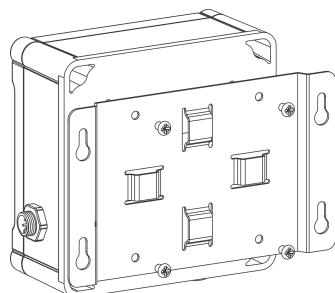


3.4 Mount the UC11-N1

Wall Mounting

Make sure you have wall mounting bracket, bracket mounting screws, wall plugs, wall mounting screws and other required tools.

- Mount the enclosure to the mounting bracket with the bracket mounting screws.



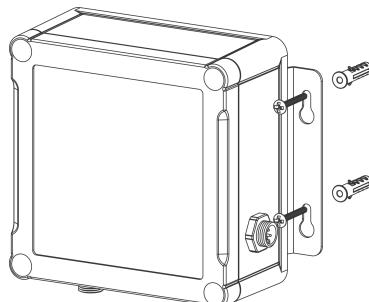
- Align the mounting bracket horizontally to the desired position on the wall, use a marker pen to mark four mounting holes on the wall, and then remove the mounting bracket from the wall.

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

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

- Insert four wall plugs into the holes respectively.

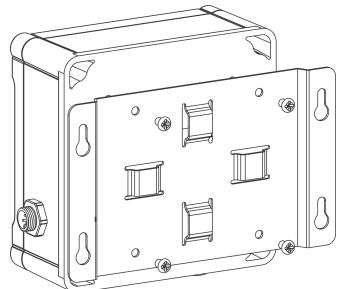
- Mount the mounting bracket horizontally to the wall by fixing the wall mounting screws into the wall plugs.



Pole Mounting

Make sure you have wall mounting bracket, bracket mounting screws, hose clamp and other required tools.

- A. Mount the enclosure to the mounting bracket with the bracket mounting screws.

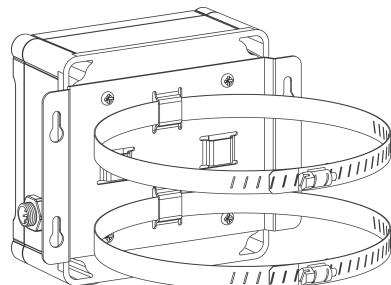


- B. Loosen the hose clamp by turning the locking mechanism counter-clockwise.



- C. Straighten out the hose clamp and slide it through the rectangular holes in the mounting bracket, wrap the hose clamp around the pole.

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



4. Connect N1 to Ursalink Cloud

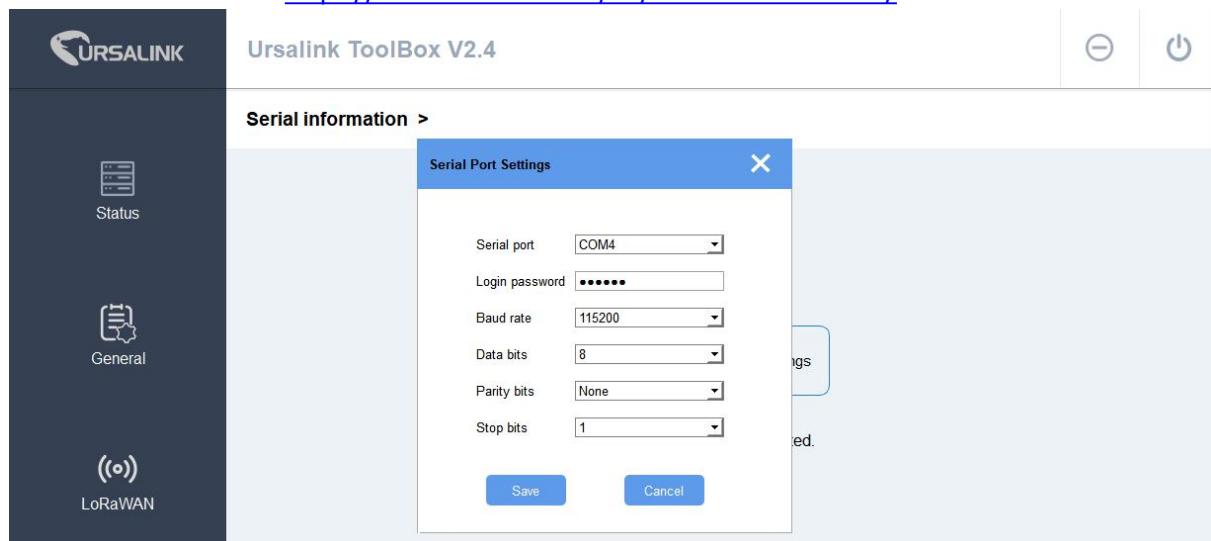
This chapter takes example of how to realize remote monitoring of sensor data among UC11-N1, Ursalink Cloud and sensor with RS485 serial port.

4.1 Configure UC11-N1 via Toolbox

A. Connect PC and UC11-N1 directly via USB port as shown in [Section 3.3](#).

B. Download Toolbox software from Ursalink website and open Toolbox.exe. Select correct Serial Port fill in the password to log in. (Default password: 123456)

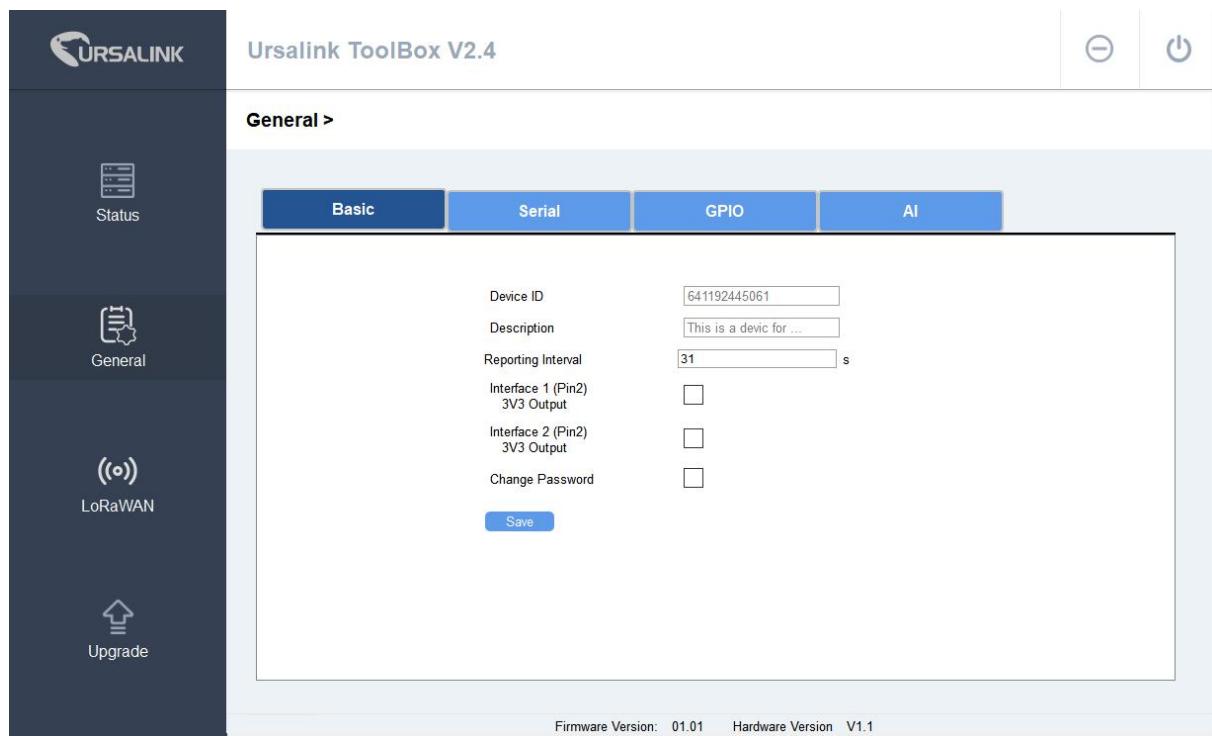
Toolbox Download link: <https://www.ursalink.com/en/software-download/>



C. Click “Status” to check property of UC11-N1.



D. Click “General->Basic” to configure the “Reporting Interval”.



E. Click “General->Serial” to configure RS485 property and Modbus channels.

4.2 RS485 Configuration Example

UC11-N1 collects data from two Modbus RTU sensors and provides power to them.

Sensor property:

Sensor	Serial Port	Slave ID	Address	Type	Power Supply
Light Sensor	9600 8N1	1	6	Holding Register (INT16)	12VDC
Wind speed sensor	9600 8N1	2	0	Holding Register (INT16)	12VDC

Configuration Steps:

A. Connect RS485 and power output of UC11-N1 to sensors. Wiring method:

UC11-N1	Orange (12V/9V/5V)	Brown (V+)	Sensors
	Black (GND)	Brown (V-)	
	Green (A)	Green (A)	
	Yellow (B)	Blue (B)	

B. Go to “General->Serial” to enable and select interface type as “RS485 (Modbus Master)”.
Enable interface 1 power output and configure “Power Output Time Before Collect”.

General >



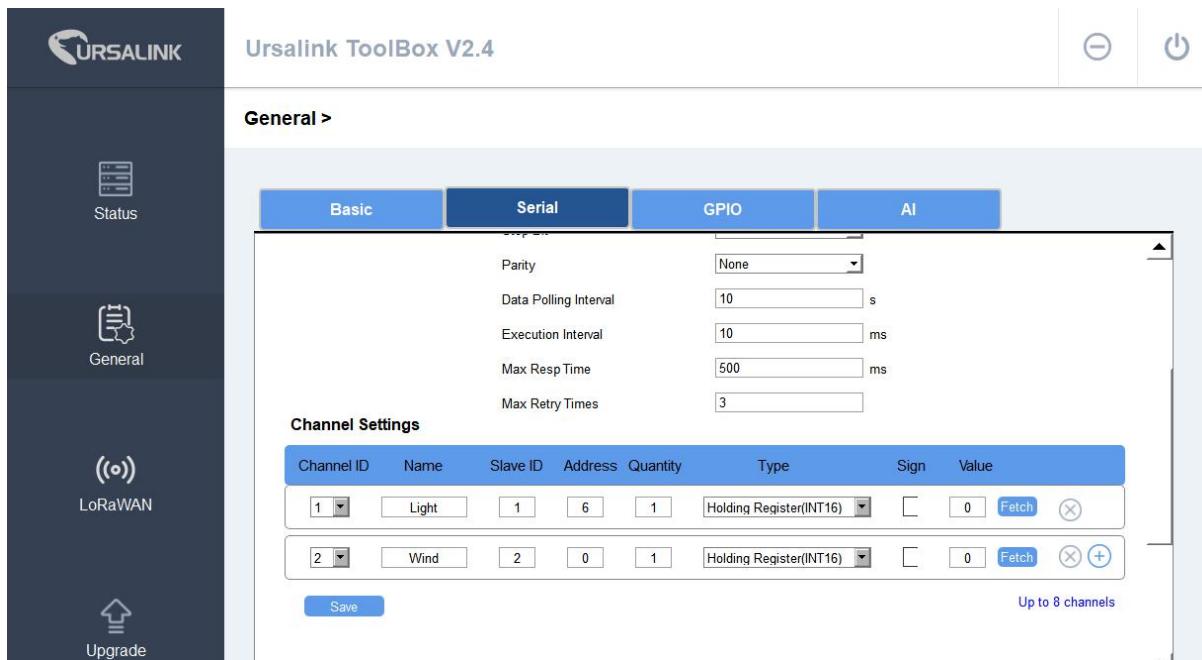
Basic		Serial		GPIO		AI	
Enable	<input checked="" type="checkbox"/>	Interface Type	RS485 (Modbus Master)	Interface 1 (Pin1) 5/9/12V Output	<input checked="" type="checkbox"/>	Power Output Time Before Collect	0 ms
Baud Rate	9600	Data Bit	8 bits	Stop Bit	1 bits	Parity	None
Data Poling Interval	600 s	Execution Interval	50 ms	Max Resp Time	500 ms	Max Retry Times	3
Modbus RS485 bridge LoRaWAN ? <input type="checkbox"/>							

Channel Settings

Firmware Version: 01.31 Hardware Version 1.1

C. Configure Modbus Channels according to information of sensors. After saving configuration, click “Fetch” to check if N1 read correct values.

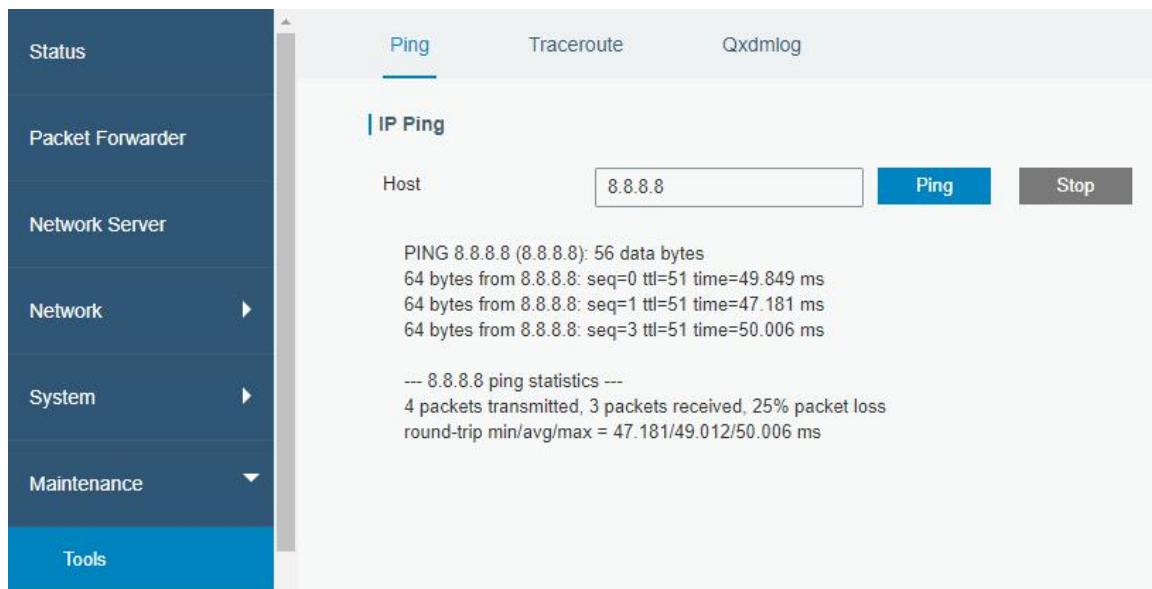
Ursalink ToolBox V2.4



Basic		Serial		GPIO		AI																									
Parity	None	Data Poling Interval	10 s	Execution Interval	10 ms	Max Resp Time	500 ms																								
Max Retry Times	3	Channel Settings																													
<table border="1"> <thead> <tr> <th>Channel ID</th> <th>Name</th> <th>Slave ID</th> <th>Address</th> <th>Quantity</th> <th>Type</th> <th>Sign</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Light</td> <td>1</td> <td>6</td> <td>1</td> <td>Holding Register(INT16)</td> <td><input type="checkbox"/></td> <td>0 Fetch X</td> </tr> <tr> <td>2</td> <td>Wind</td> <td>2</td> <td>0</td> <td>1</td> <td>Holding Register(INT16)</td> <td><input type="checkbox"/></td> <td>0 Fetch X +</td> </tr> </tbody> </table>								Channel ID	Name	Slave ID	Address	Quantity	Type	Sign	Value	1	Light	1	6	1	Holding Register(INT16)	<input type="checkbox"/>	0 Fetch X	2	Wind	2	0	1	Holding Register(INT16)	<input type="checkbox"/>	0 Fetch X +
Channel ID	Name	Slave ID	Address	Quantity	Type	Sign	Value																								
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2	Wind	2	0	1	Holding Register(INT16)	<input type="checkbox"/>	0 Fetch X +																								
Save																															
Up to 8 channels																															

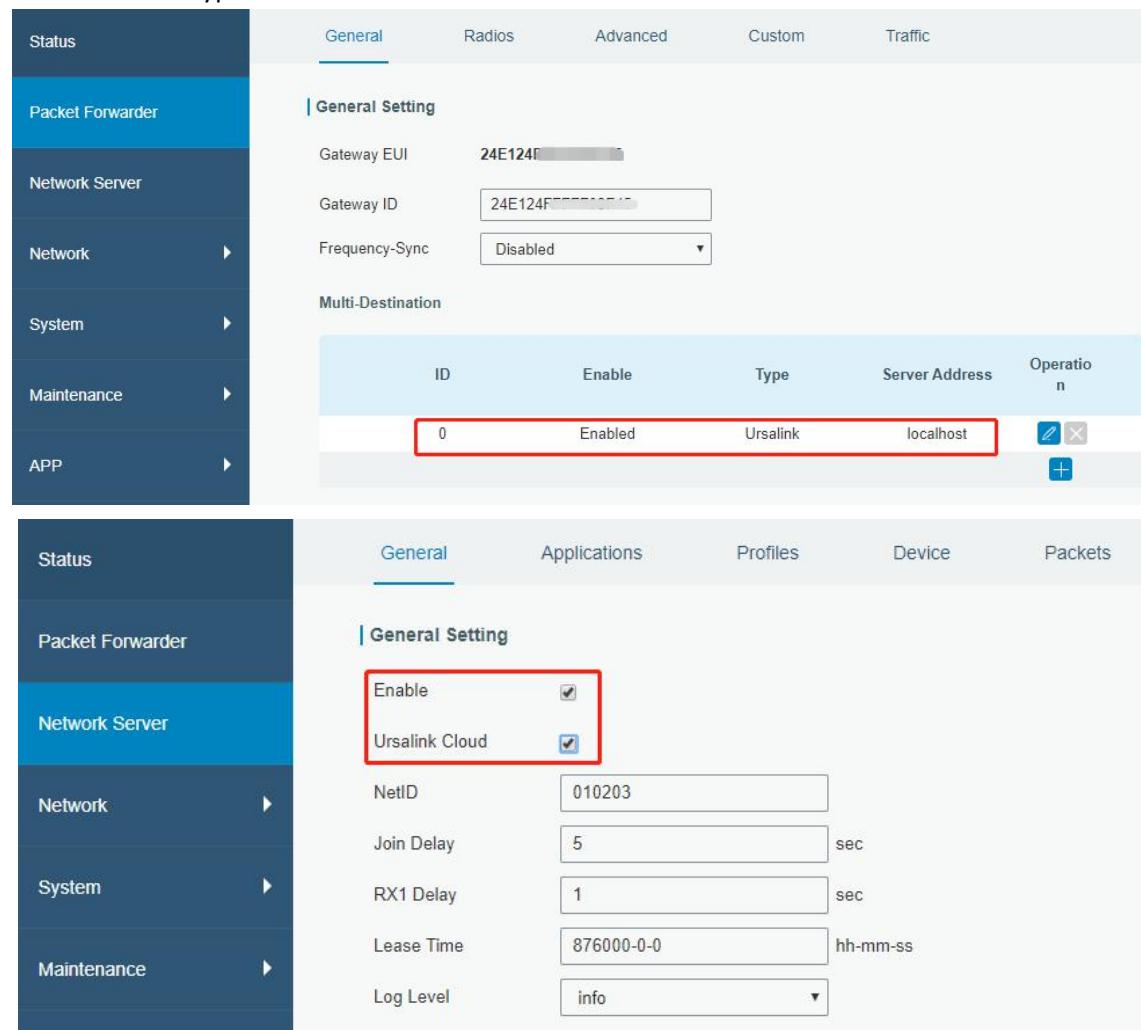
4.3 Ursalink Gateway Configuration

- A. Go to “Maintenance->Ping” and use ping tool to check gateway Internet connection.



Ping Statistics	
Host	8.8.8.8
PING 8.8.8.8 (8.8.8.8): 56 data bytes	
64 bytes from 8.8.8.8: seq=0 ttl=51 time=49.849 ms	
64 bytes from 8.8.8.8: seq=1 ttl=51 time=47.181 ms	
64 bytes from 8.8.8.8: seq=3 ttl=51 time=50.006 ms	
--- 8.8.8.8 ping statistics ---	
4 packets transmitted, 3 packets received, 25% packet loss	
round-trip min/avg/max = 47.181/49.012/50.006 ms	

- B. Enable “Ursalink” type network server and “Ursalink Cloud” mode.

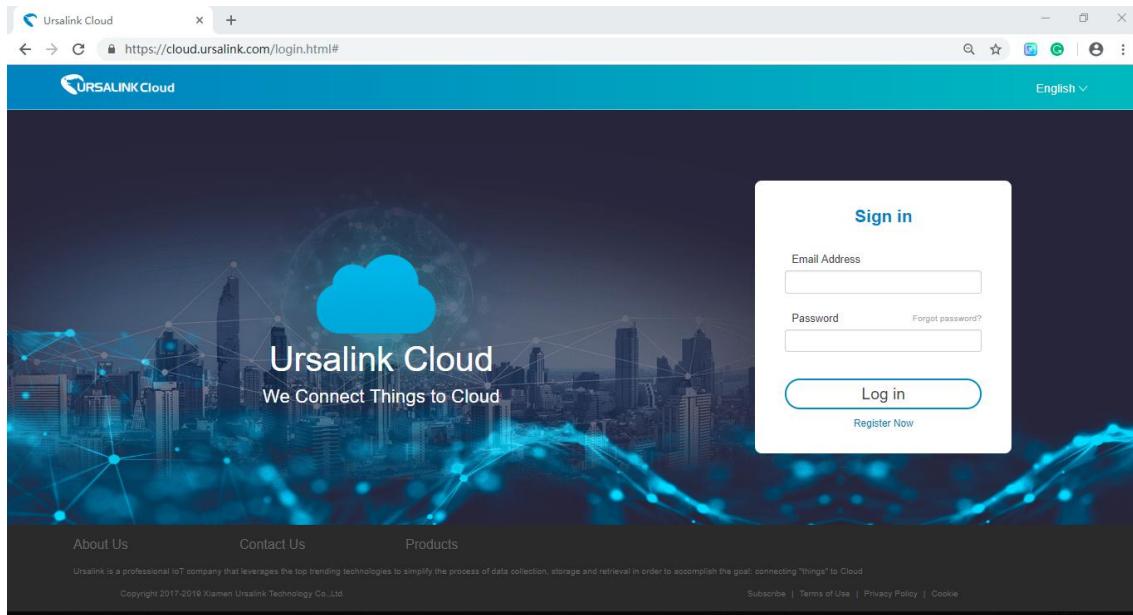


ID	Enable	Type	Server Address	Operation
0	Enabled	Ursalink	localhost	edit x

4.4 Ursalink Cloud Configuration

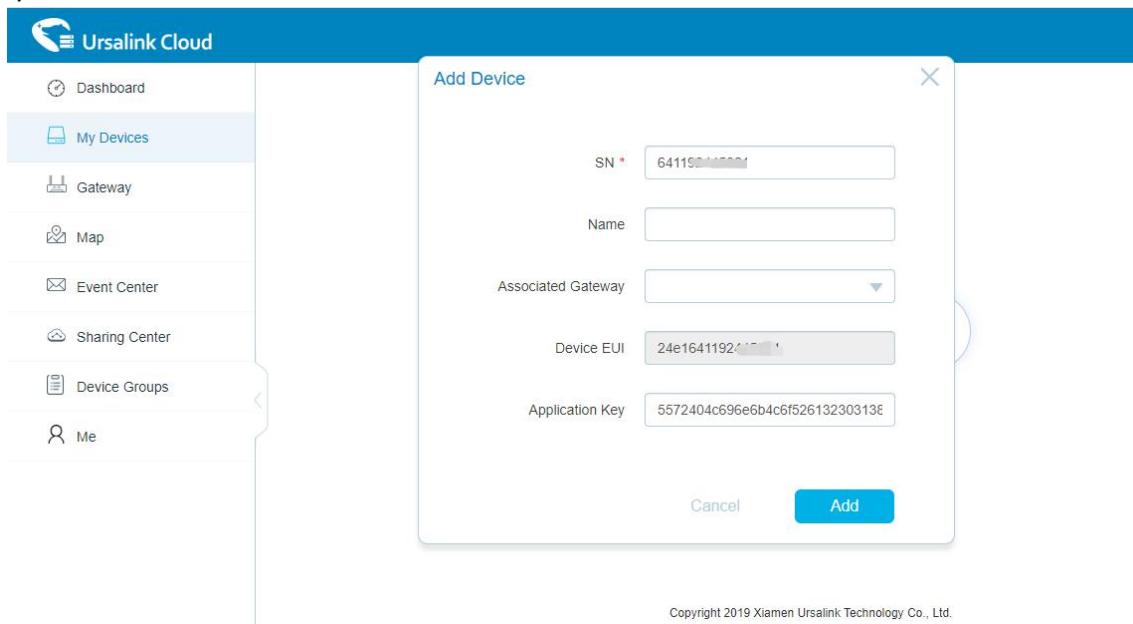
- A. Register and log in Ursalink Cloud.

Ursalink Cloud URL: <https://cloud.ursalink.com/login.html>



- B. Go to “My Devices->Gateway” and click “Add” to add gateway to Ursalink Cloud via SN.

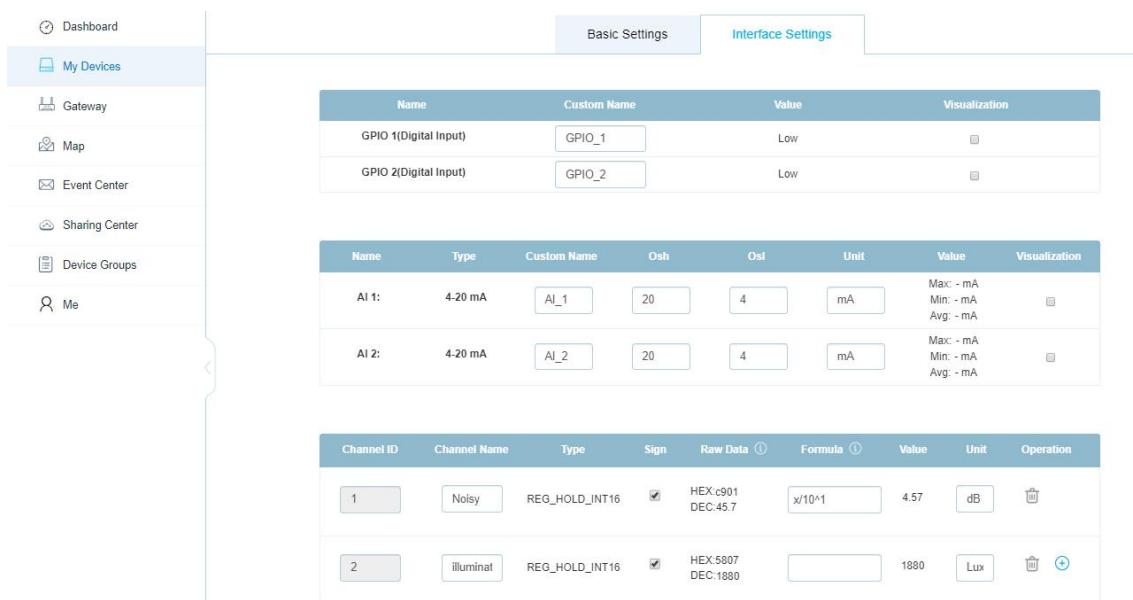
C. Go to “Device->My Devices” and click “Add Device”. Fill in the SN of UC11-N1 and select associated gateway.



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D. Click  after UC11-N1 is connected and enter “Interface Settings” to choose and edit relevant data to be shown on dashboard.

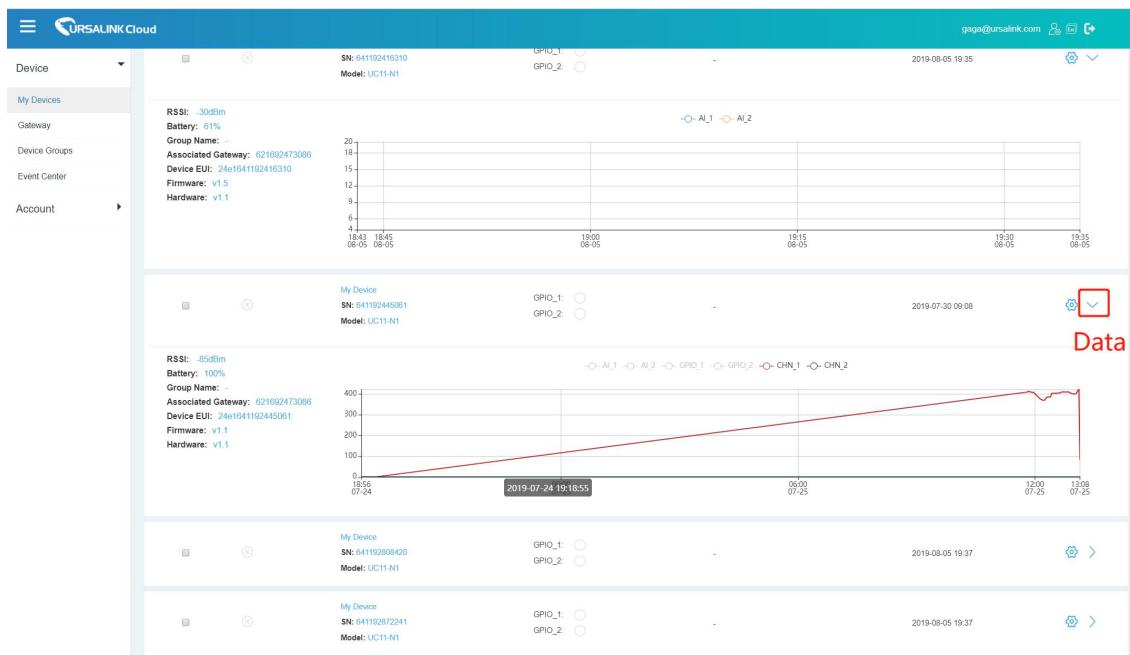
Note: Modbus channel settings should be the same as the configuration in Toolbox.



Name	Type	Custom Name	Osh	Osl	Unit	Value	Visualization
GPIO 1(Digital Input)		GPIO_1			mA	Low	Max: - mA Min: - mA Avg: - mA
GPIO 2(Digital Input)		GPIO_2			mA	Low	Max: - mA Min: - mA Avg: - mA

Channel ID	Channel Name	Type	Sign	Raw Data ⓘ	Formula ⓘ	Value	Unit	Operation
1	Noisy	REG_HOLD_INT16	<input checked="" type="checkbox"/>	HEX:c901 DEC:45.7	X/10^1	4.57	dB	
2	illuminal	REG_HOLD_INT16	<input checked="" type="checkbox"/>	HEX:5807 DEC:1880		1880	Lux	 

E. Click  to check device information and history data.



Note: For more details, please refer to the UC11-N1 user guide.

[END]