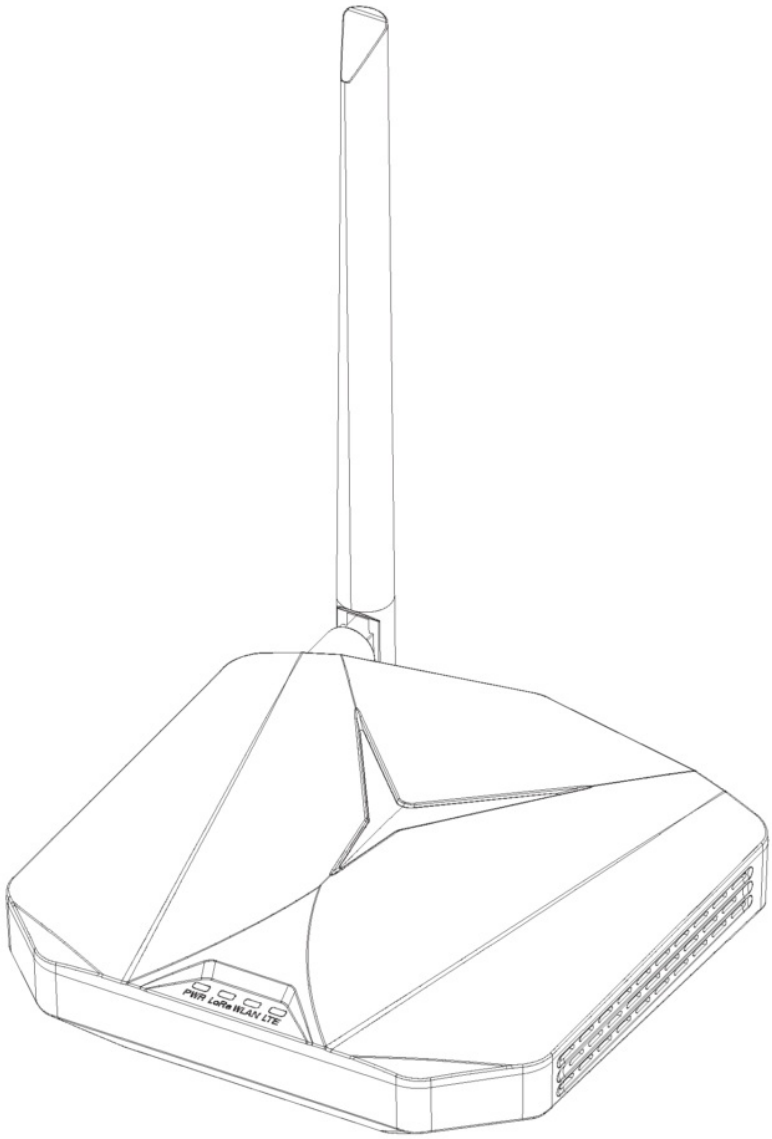
ThinkNode G1 Indoor Gateway For LoRaWAN User Manual

Contents

ThinkNode G1 Indoor Gateway For LoRaWAN



USER MANUAL

ThinkNode-G1
Indoor Gateway For LoRaWAN

About ThinkNode-G1

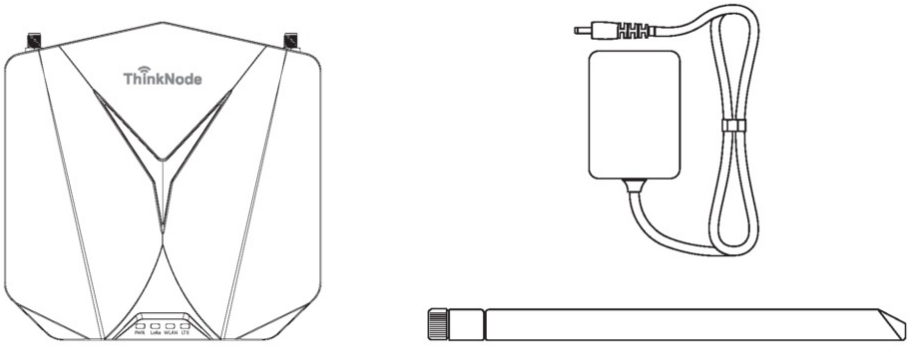
Thank you for selecting the ThinkNode-G1 for your impressive IoT project.

This LoRaWAN indoor gateway is designed to connect to a diverse range of network servers, supporting both WiFi and Ethernet connections, as well as an optional LTE module for 3G/4G cellular network bridging. Utilizing LoRa wireless technology, the G1 gateway enables long-distance data transmission at low data rates.

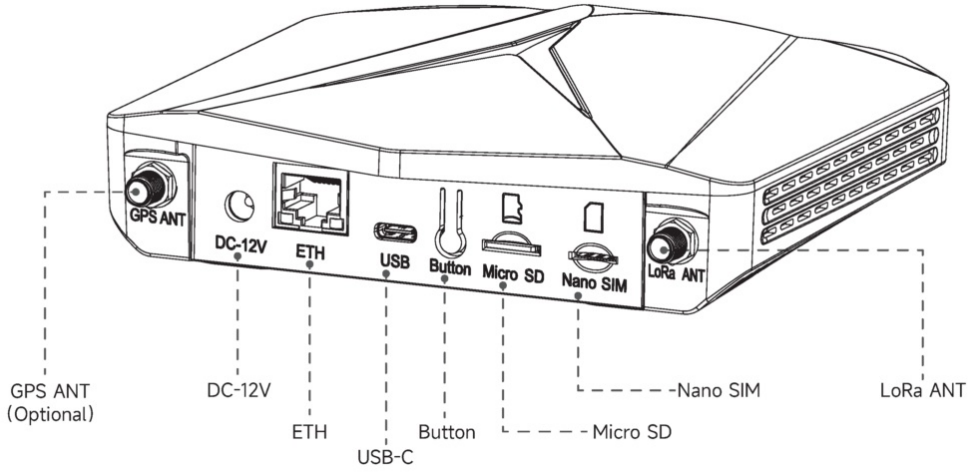
Part List

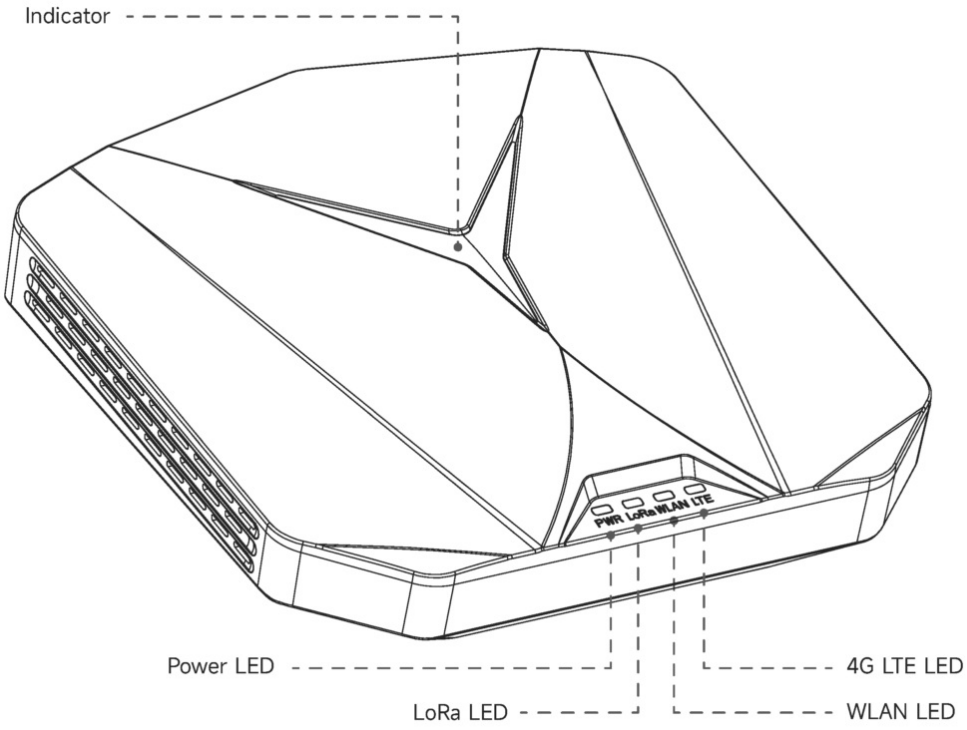
- ThinkNode-G1*1
- Power Adapter(12V-2A)*1

- LoRa Antenna(3dBi)*1



Specifications

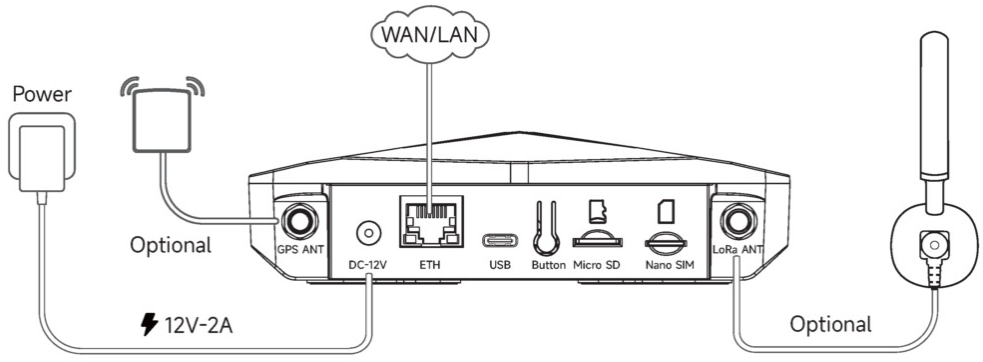


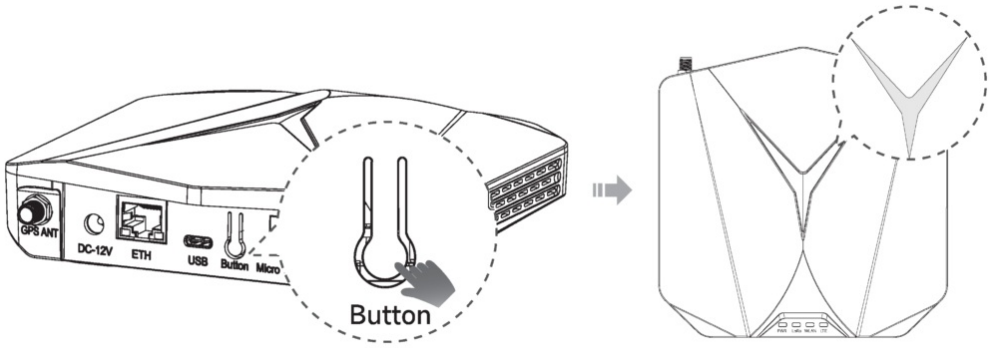


Mode		Description
Green	Solid	Operating normally, good internet connection.
	Slow Blink	Device/hotspot is starting up.
Blue	Solid	Device is ready to connect to the network and requires further configuration.
	Slow Blink	Configuration mode, will automatically exit if there is no activity in 5 minutes.
	Rapid Blink	Device reset indication, press the button for 20 seconds, the light will flash rapidly.
White	Slow Blink	Firmware update indication, do not disconnect the device from the internet.
Red	Solid	Hardware issue or internet connection failure.
White	Solid	Device currently only has factory firmware, will automatically update to the latest firmware when connected to the internet.

Mode		Description
PWR	On	Device powered on.
	Off	Not connected to power.
LoRa	On	Connected to LoRa wireless network.
	Off	Not connected.
WLAN	On	Connected to WLAN Ethernet network.
	Off	Not connected.
LTE	On	Connected to 4G cellular network.
	Off	Not connected.

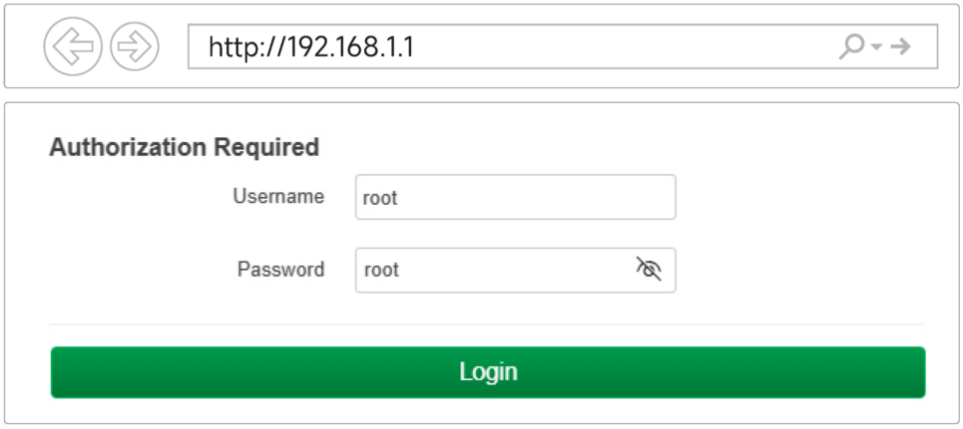
Mode	Description
Double Click	Software reboot.
Press for 5s	Slow blue light blink, entering configuration mode, will automatically exit if there is no activity in 5 minutes.
Press for 20s	Rapid blue light flash, triggering factory reset and software reboot.

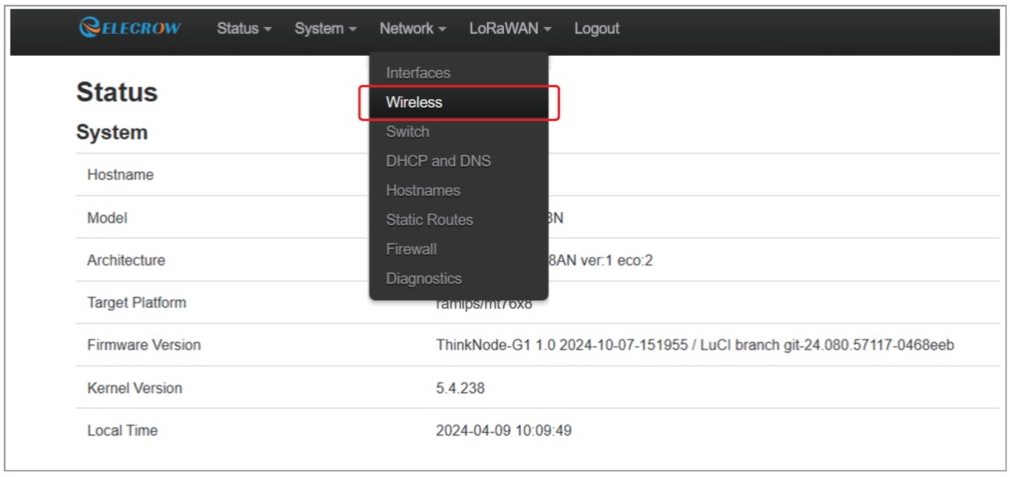


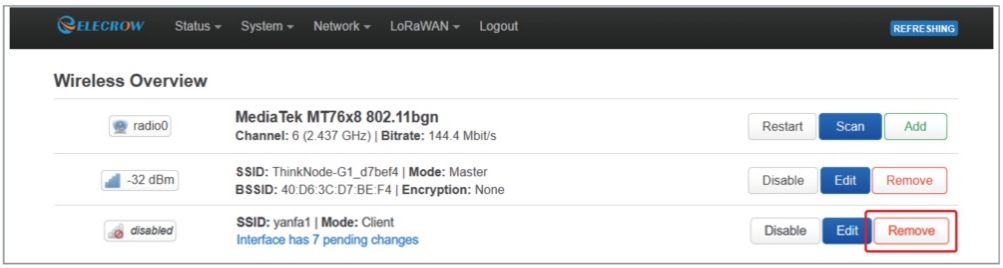

GPS ANT
DC-12V
ETH
USB
Button
Micro
Button

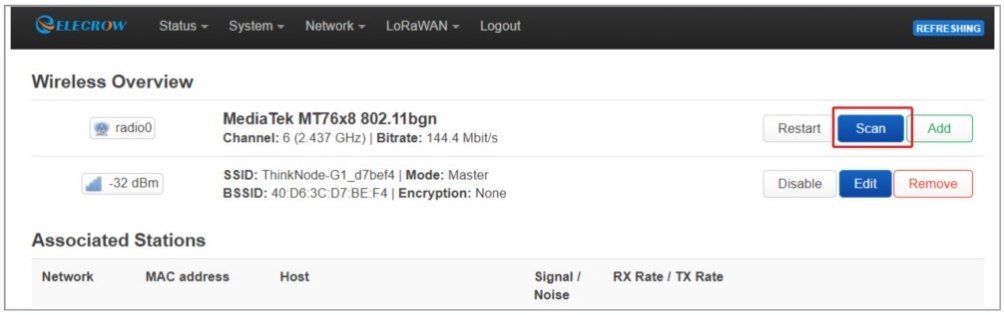

WLAN
ThinkNode-G1_d7bef4

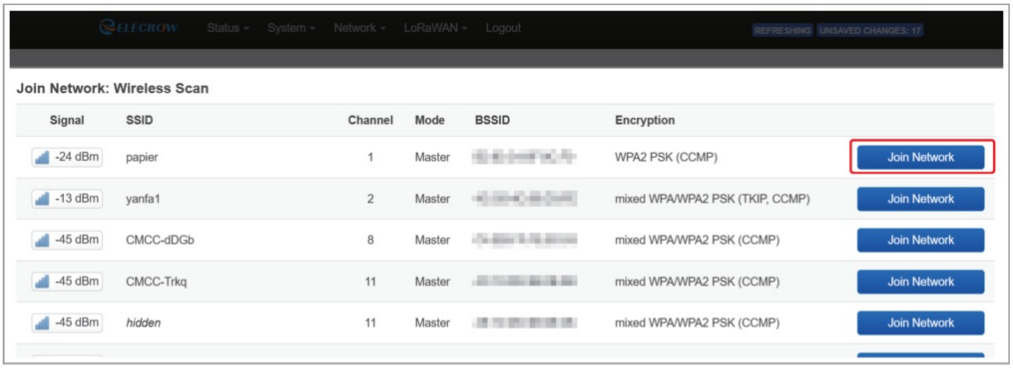
Username: root Password: root

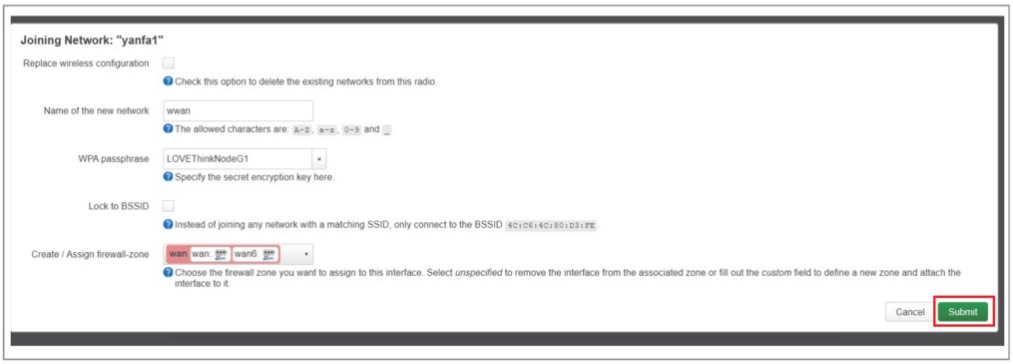


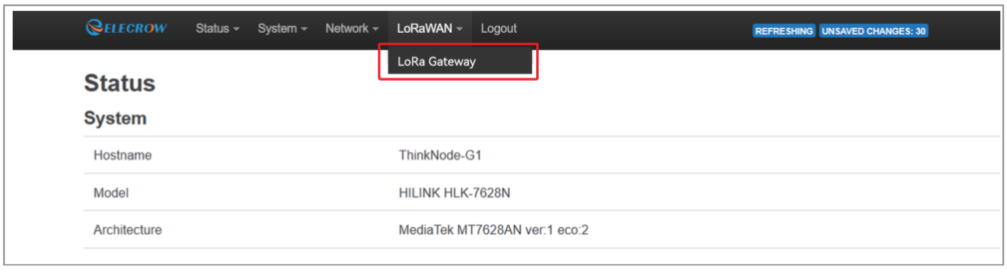


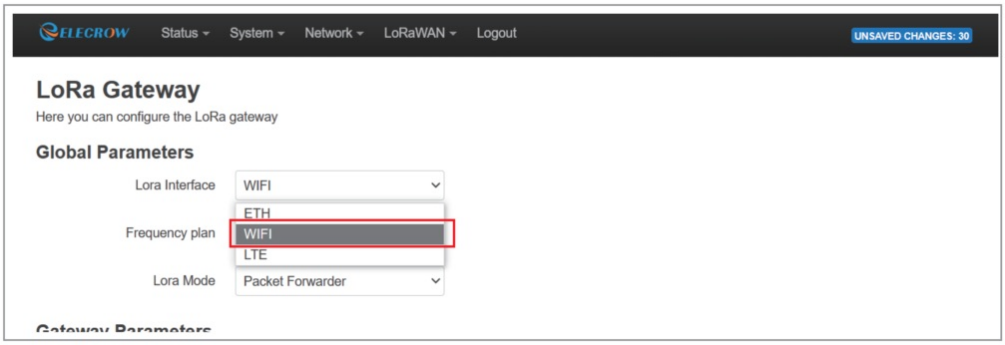


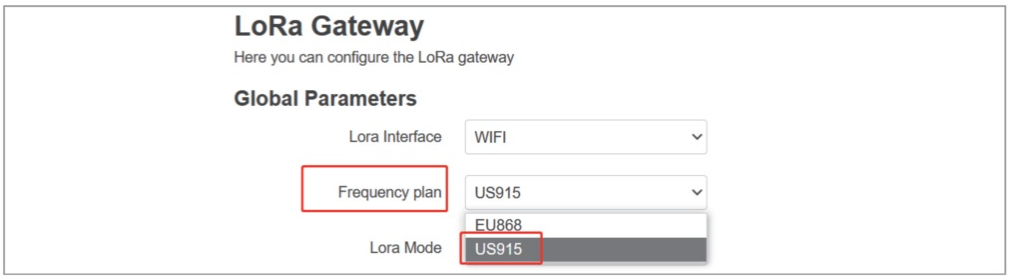

ELECROW
Status
System
Network
LoRaWAN
Logout
REFRESHING
Wireless Overview
radio0
MediaTek MT76x8 802.11bgn
Channel: 6 (2.437 GHz) | Bitrate: 144.4 Mbit/s
Restart
Scan
Add
-32 dBm
SSID: ThinkNode-G1_d7bef4 | Mode: Master
BSSID: 40:D6:3C:D7:BE:F4 | Encryption: None
Disable
Edit
Remove
Associated Stations
Network
MAC address
Host
Signal / Noise
RX Rate / TX Rate

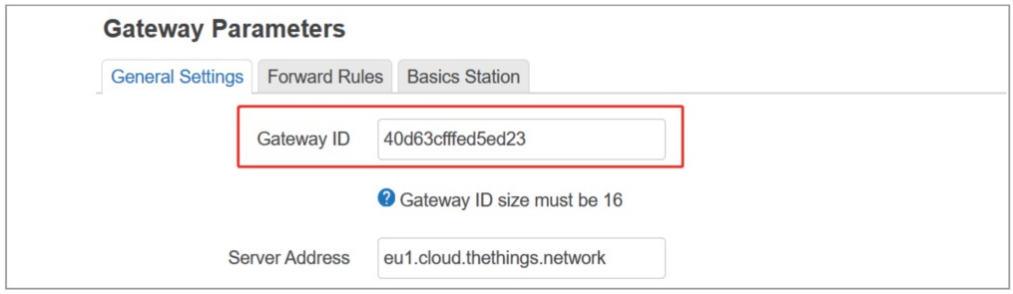

ELECROW
Status
System
Network
LoRaWAN
Logout
REFRESHING
UNSAVED CHANGES: 17
Join Network: Wireless Scan
Signal
SSID
Channel
Mode
BSSID
Encryption
-24 dBm
papier
1
Master
WPA2 PSK (CCMP)
Join Network
-13 dBm
yanfa1
2
Master
mixed WPA/WPA2 PSK (TKIP, CCMP)
Join Network
-45 dBm
CMCC-dDGb
8
Master
mixed WPA/WPA2 PSK (CCMP)
Join Network
-45 dBm
CMCC-Trkq
11
Master
mixed WPA/WPA2 PSK (CCMP)
Join Network
-45 dBm
hidden
11
Master
mixed WPA/WPA2 PSK (CCMP)
Join Network


Joining Network: "yanfa1"
Replace wireless configuration
Check this option to delete the existing networks from this radio.
Name of the new network
wwan
The allowed characters are: A-Z, a-z, 0-9 and _
WPA passphrase
LOVEThinkNodeG1
Specify the secret encryption key here.
Lock to BSSID
Instead of joining any network with a matching SSID, only connect to the BSSID 4C:C6:4C:80:D3:FE
Create / Assign firewall-zone
wan
wan:
wan6:
Choose the firewall zone you want to assign to this interface. Select unspecified to remove the interface from the associated zone or fill out the custom field to define a new zone and attach the interface to it.
Cancel
Submit

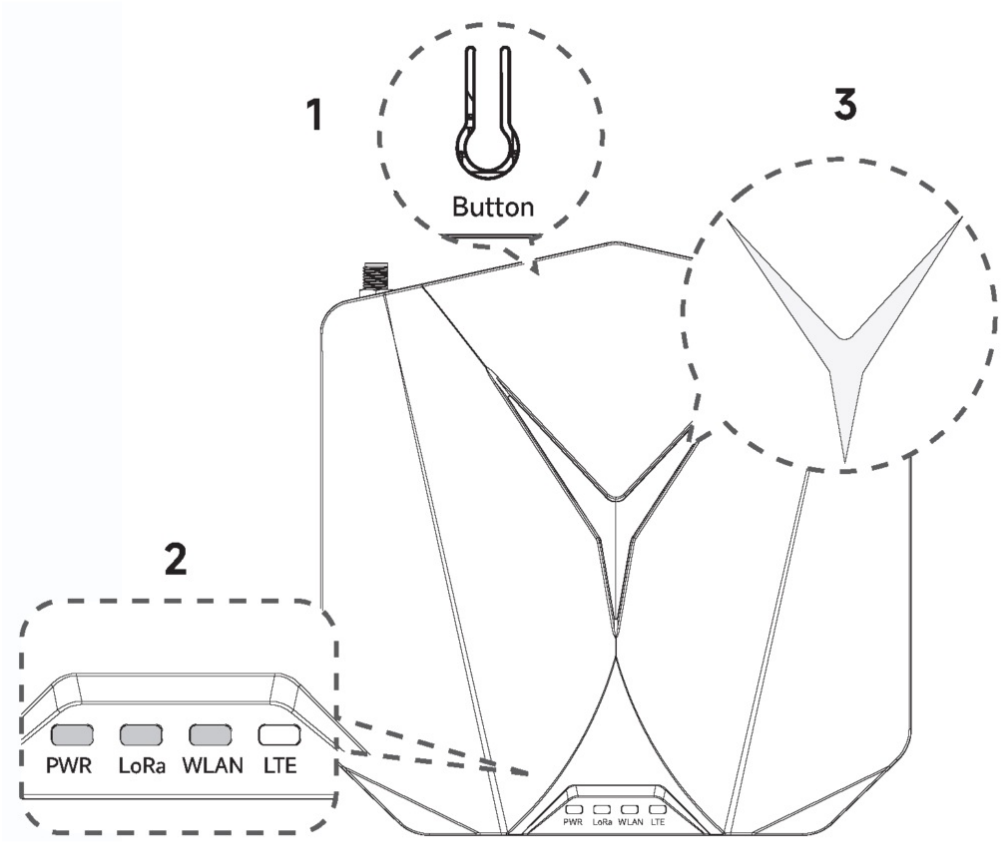

ELECROW
Status
System
Network
LoRaWAN
Logout
REFRESHING
UNSAVED CHANGES: 30
LoRa Gateway
Status
System
Hostname
ThinkNode-G1
Model
HILINK HLK-7628N
Architecture
MediaTek MT7628AN ver:1 eco:2

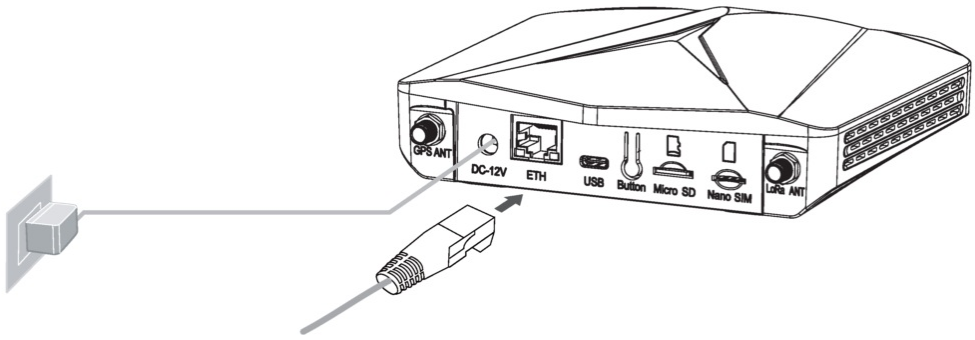

ELECROW
Status
System
Network
LoRaWAN
Logout
UNSAVED CHANGES: 30
LoRa Gateway
Here you can configure the LoRa gateway
Global Parameters
Lora Interface
WIFI
Frequency plan
ETH
WIFI
LTE
Lora Mode
Packet Forwarder

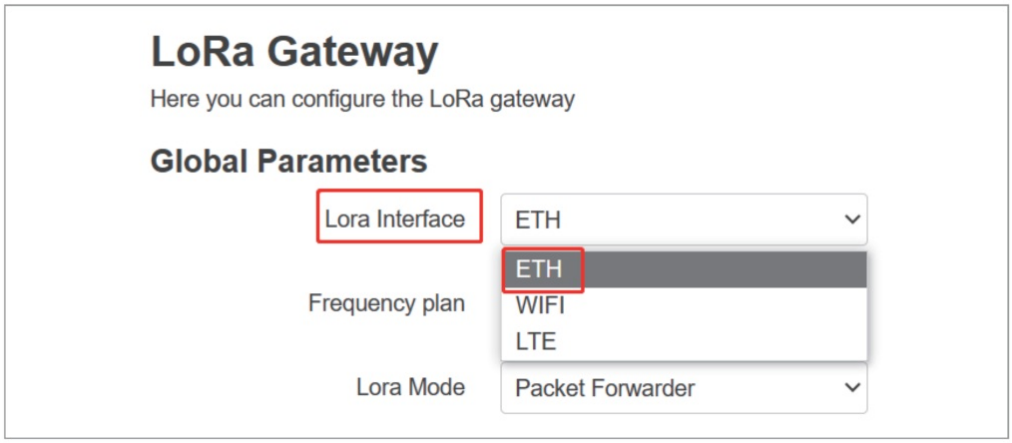

LoRa Gateway
Here you can configure the LoRa gateway
Global Parameters
Lora Interface
WIFI
Frequency plan
US915
EU868
Lora Mode
US915


Gateway Parameters
General Settings
Forward Rules
Basics Station
Gateway ID
40d63cfffed5ed23
Gateway ID size must be 16
Server Address
eu1.cloud.thethings.network


Server Port (Down)
1700
Keep Alive Interval
10
Push Timeout
100
Save & Apply
Save
Reset


1
Button
3
2
PWR
LoRa
WLAN
LTE
PWR LoRa WLAN LTE


GPS ANT
DC-12V
ETH
USB
Button
Micro SD
Nano SIM
LoRa ANT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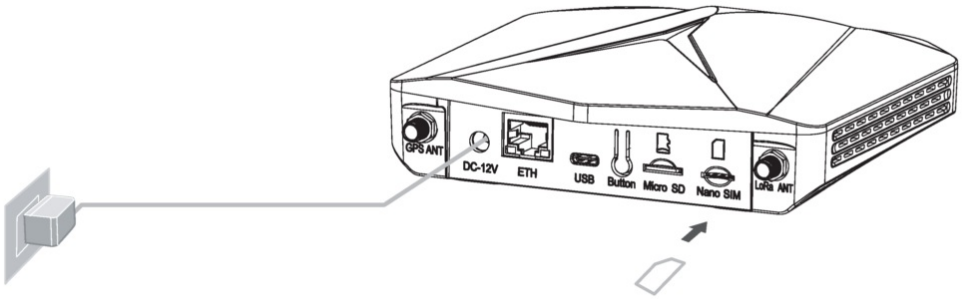
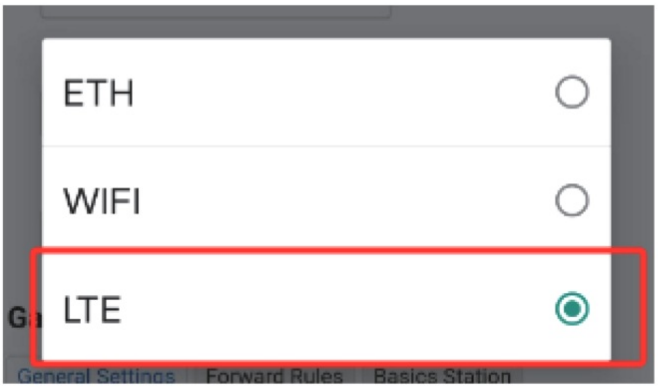
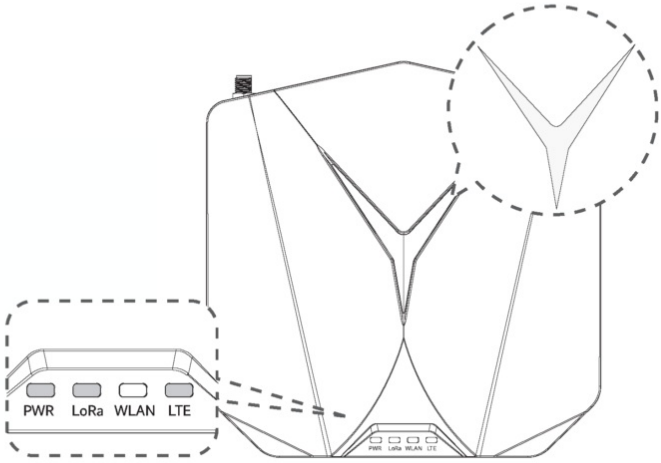
ETH
ETH
WIFI
LTE
Frequency plan
Lora Mode
Packet Forwarder


GPS ANT
DC-12V
ETH
USB
Button
Micro SD
Nano SIM
LoRa ANT





Specifications

- Model: ThinkNode-G1
- Type: Indoor Gateway for LoRaWAN
- Supported Networks: WiFi, Ethernet, LTE (optional)
- Wireless Technology: LoRa
- Data Transmission: Long-distance at low data rates

Product Usage Instructions

Step 1: Set up ThinkNode-G1

1. Connect the antenna, power adapter, and Ethernet cable (optional) to the gateway.
2. Turn on the power. The power LED will turn green.
3. After 15 seconds, the top indicator will flash green, indicating startup.
4. The status indicator will turn solid green if connected via Ethernet or blue while awaiting Wi-Fi setup.

Step 2: ThinkNode-G1 Internet Connection Configuration

(1) Setting up WiFi Connection Mode

Press and hold the gateway's setup button for 5 seconds to enter configuration mode. A slow blue flash indicates setup mode is active.

(2) Gateway ETH Internet Connection Configuration

Connect to the gateway's AP (Access Point) and log in to the Luci network configuration interface using a mobile device or computer/laptop with a wireless network interface, connecting to the gateway AP- ThinkNode-G1_XXXXXX.

(3) Gateway LTE (4G) Internet Connection Configuration

Additional instructions for configuring the LTE connection can be found in the user manual.

FAQ

Q: How do I reset the ThinkNode-G1 to factory settings?

A: Press and hold the gateway's setup button for 20 seconds to trigger a factory reset and software reboot.

Q: What do the different indicator lights on the ThinkNode-G1 mean?

A: The green light indicates normal operation and good internet connection, while the blue light signifies configuration mode.
Refer to the user manual for detailed explanations of other indicator light statuses.

Documents / Resources

	ThinkNode G1 Indoor Gateway For LoRaWAN [pdf] User Manual G1, G1 Indoor Gateway For LoRaWAN, Indoor Gateway For LoRaWAN, Gateway For LoRaWAN, LoRaWAN

References

- ThinkNode G1 Indoor 8 Channels LoRaWAN Gateway Powered By SX1302 Chip
- User Manual