NEPTUNE IoT HUB LITE - QUICK START GUIDE

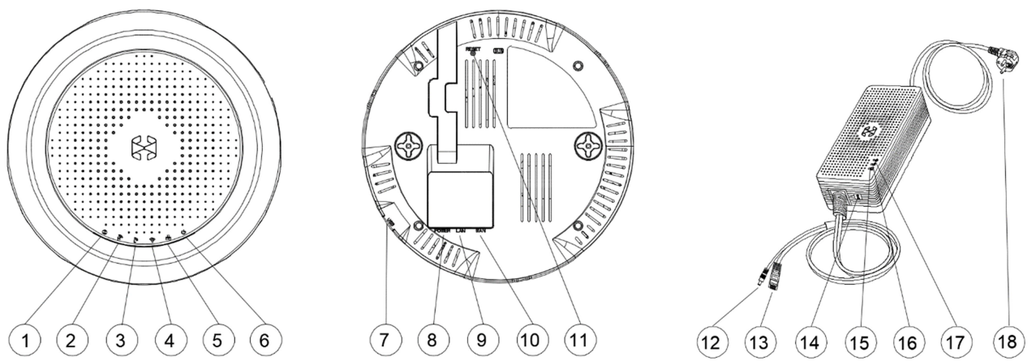
1. ABOUT YOUR NEPTUNE

The Neptune IoT Hub Lite is not only a professional AC3000 Tri-Band WiFi router that provides data assessment for client devices such as laptop, cellphones, printers, cameras…but also a smart hub to connect Internet of Things (IoT) devices through either Zigbee or WiFi protocols. It can also connect Z-wave IoT devices and 3G/LTE network through USB dongles.

To extend the network, you can connect more Neptunes together through Homa's propriety technology WiPoN™ (**W**ireless-**P**owerline **N**etwork). The backhaul connections between Neptunes are setup using both WiFi and Powerline Communications (PLC) which ensures maximum coverage and worry-free connectivity to every corner of a large house.

The product box includes the following items: (1) main wireless router and smart controller, (2) G.hn PLC – AC/DC power adapter, (3) Ethernet and DC power Y-cable, (4) AC power cable, (5) ceiling/wall mounting kits, and (6) Quick Start Guide.

2. DEVICE LAYOUT



① **Zigbee LED**
Off: no power or physical failure.
On (solid blue): Zigbee system is ready.
On (blinking blue): transmitting or receiving data via Zigbee.

②③④ **5GHz_H, 5GHz_L, and 2.4GHz WiFi LEDs**
Off: no power, no ready WiFi signal, or physical failure.
On (solid blue): corresponding WiFi system is ready.
On (blinking blue): transmitting or receiving data via WiFi.

⑤ **WAN (Internet), LAN LEDs**
Off: no power, no connection to WAN/LAN or physical failure.
On (solid blue): has physical connection to a WAN or a LAN.
On (blinking blue): transmitting or receiving data via WAN/LAN.

⑥ **Power LED (for the main wireless router)**
Off: no power or physical failure.
On (solid pink): software error.
On (flashing pink): Zigbee "permit join" status is enabled.
On (solid blue): system is ready (solid amber at booting up).

⑦ **USB Port**
Insert USB 3.0 devices including 3G/LTE and Z-wave dongles.

⑧ **Power (DC-IN) port**
Insert the DC plug ⑫ from the AC/DC adapter to this port.

⑨ **LAN Port**
Connect the RJ45 connector of ⑬ to this port to setup the hub as a CAP (**C**entral **A**ccess **P**oint) for WiPoN™ or to cascade the hub to other routers through PLC.

Connect Ethernet cable to this port to establish LAN for client devices (laptop, TV,…) or to cascade the hub to other routers.

⚠ Warning: Use only the power adapter that is supplied with the hub. Using a different power adapter could damage the hub.

⑩ **WAN Port**
Connect the RJ45 connector of ⑬ to this port to setup the hub as a RE (**R**ange **E**xtender) for WiPoN™ or to cascade the hub to other routers through PLC.

Connect this port to Internet Service Provider - ISP's modem or to other routers (cascading) using Ethernet cable to receive data.

⑪ **Reset Button**
This button restores Neptune to its factory default settings. Press the button in 11s (the Power LED of ⑥ will change from blue to amber), then continue to press it three times to complete the reset.

⑫ **DC Cable (a part of Y-cable)**
This cable is used to provide DC power supply for the hub.

⑬ **Ethernet cable (a part of Y-cable)**
This cable is used for data transmission through PLC adapter.

⑭ **Unpair Button**
Press this button in 11s (until three LEDs ⑮, ⑯, ⑰ blink once) to unpair the adapter out of the PLC network.

⑮ **Ethernet LED**
Off: no power or physical failure.
On (solid green): if there is active device connect to port ⑬.

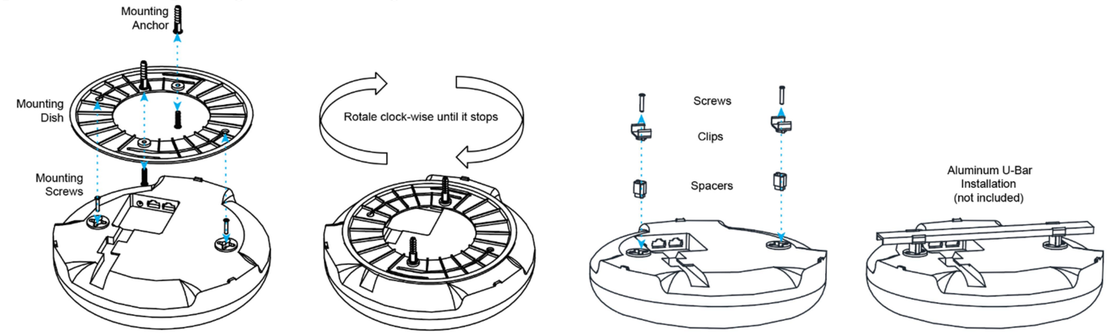
⑯ **PLC Network LED**
Off: no power, no detected PLC network or physical failure.
On (blinking green): data transmission on PLC network.

⑰ **Power LED (for the PLC Adapter)**
Off: no power or physical failure.
On (solid green): PLC adapter is ready.

⑱ **AC Power Cable**
This cable is used to provide both AC power supply and data path for the PLC adapter.

3. INSTALLATION

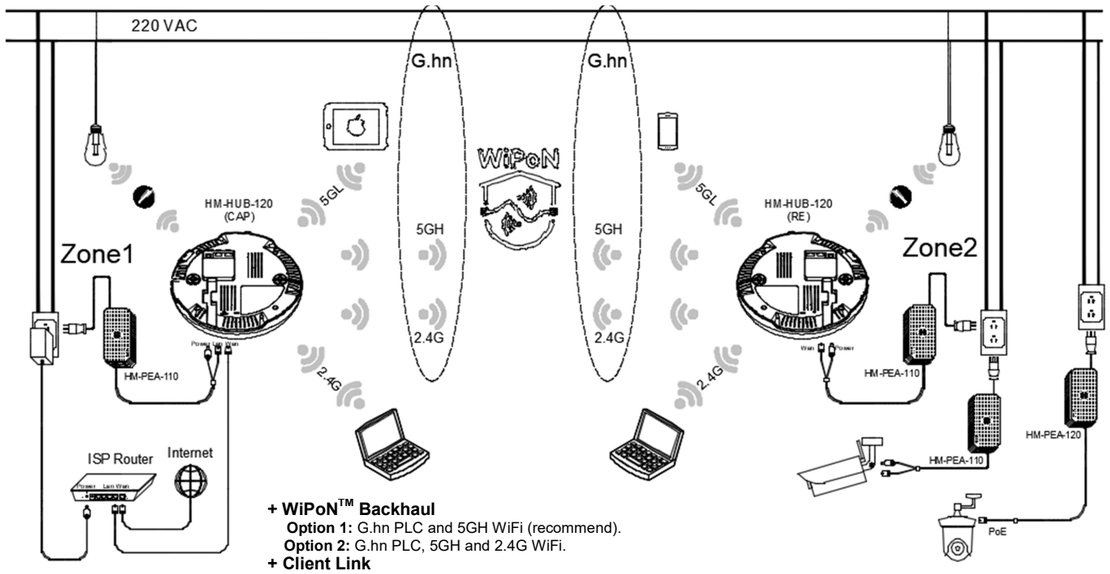
Desktop Mounting: simply putting the device on a flat surface so that it sits on its three plastic feet
Ceiling or Wall Mounting: using either mounting dish or U-bar accessories as follows:



⚠ Warning: Insecure mounting might damage the hub or cause injury. Homa is not responsible for damages incurred due to insecure mounting.
Do not operate the hub in an area that exceeds an ambient temperature of 40°C (104°F).

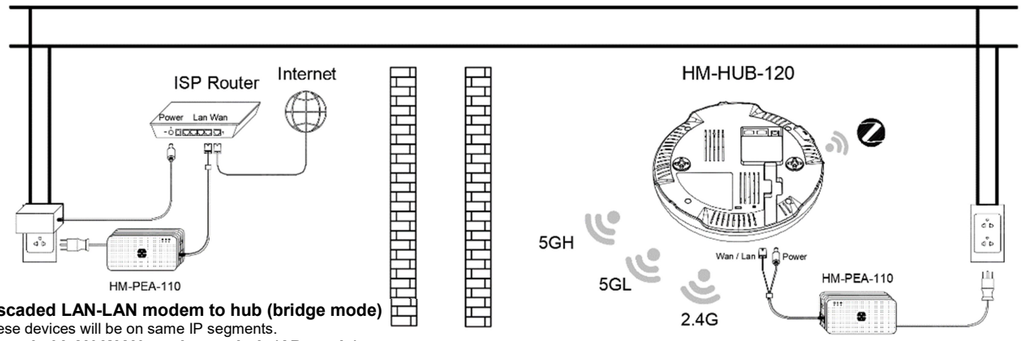
4. NETWORK CONNECTION SETUP

Use Case 1: completed WiPoN™ setup to bring seamless and worry-free connectivity to every corner of the house.



+ WiPoN™ Backhaul
Option 1: G.hn PLC and 5GH WiFi (recommend).
Option 2: G.hn PLC, 5GH and 2.4G WiFi.
+ Client Link
Client devices can connect to Neptune hubs through G.hn PLC, 5GL/2.4G WiFi, and Zigbee.

Use Case 2: Access Point (AP) and Bridge mode setups to connect ISP modem and Neptune hub through PLC.



+ Cascaded LAN-LAN modem to hub (bridge mode)
These devices will be on same IP segments.
+ Cascaded LAN-WAN modem to hub (AP mode)
These devices will be on different IP segments.

5. NETWORK CONFIGURATION SETUP

The Neptune hub comes with an intuitive web graphical user interface (Web-GUI) that allows users to easily configure its various features through a web browser such as Internet Explorer, Firefox, Safari, or Chrome. Following these steps to access the Web-GUI configuration utility from computer:

STEP 1: Connect computer to Neptune hub through its LAN port or WiFi access.
Ethernet: select "**Obtain an IP address automatically**" option for the computer's network adapter, and then connect it to the hub's LAN port.
WiFi: search WiFi SSIDs: "Neptune_2.4G", "Neptune_5GH", "Neptune_5GL", and connect to one of these SSIDs (no password is required).

STEP 2: Open a web browser, and then enter the default IP address of the hub: **192.168.123.1**.

STEP 3: Enter the default username: **homa** and password: **homa** in the Username and Password fields. Click **Login** to bring up interface for configuration.

For WiFi Access Point mode (or Bridge mode) configuration, proceed further as follows:

STEP 4: Switch to /**Network**/**WiFi** menu, select **Access Point** mode (or **Bridge mode**), then select operating frequency band (**2.4GHz**, **5GHz High-Band**, or **5GHz Low-Band**). For each frequency band, set the desired SSID name, password, encryption type, access channel, and transmitted power level.

STEP 5: Click **Apply** to save the configuration.

After finishing WiFi configuration setups, following these steps to form Zigbee network:

STEP 6: Switch to /**Network**/**Zigbee** menu. Enable **Permit Join** to allow Zigbee client devices to join the network.

STEP 7: Follow the instructions on each Zigbee client device to register them to the network.

For complete WiPoN™ mode configuration to extend the network, and other advanced settings (such as forming Z-wave network to connect Z-wave enabled IoT devices or connecting to 3G/LTE network through USB dongles), download the full User's Manual for Neptune IoT Hub Lite from the link: **www.homatechs.com/support/Neptune/manual**.

6. HOMA SMART APPS TO MANAGE AND CONTROL IOT DEVICES

Homa Home App is pre-installed on Homa Panel, a 10-inch Android tablet (Model: HM-PAN-210). This app is used to communicate with the Neptune hub through WiFi to control IoT devices in every room, to get important notifications about what is happening in your house, and to do the settings for whole Homa's smart system.

Homa Mobile App lets you easily control, monitor, and secure your house from anywhere in the world. The app is available to download on both Android and iOS platforms.

Homa

Download on the App Store

GET IT ON Google Play

Federal Communication Commission Interference Statement

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This equipment may not cause harmful interference
(2) This equipment 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.

IMPORTANT NOTE:
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 24 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA.

Operation of this device is restricted to indoor use only.

Support

Thank you for purchasing this HOMA product.

You can visit *www.homatechs.com/support/Neptune* to access the latest downloads and user manuals. We recommend that you use only official HOMA support resources. If you need further assistance, please email HOMA Technical Support: support@homatechs.com.

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