

# Home Assistant Connect ZWA-2

## User Documentation

This publication is specific to Home Assistant Connect ZWA-2 and a supplement to the Home Assistant User Documentation on <https://www.home-assistant.io>



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# About Home Assistant Connect ZWA-2

Home Assistant Connect ZWA-2 connects to your Home Assistant system via USB, allowing it to build a Z-Wave network via the included Z-Wave integration. Home Assistant Connect ZWA-2 is not a standalone product. It requires Home Assistant installed on a smart home hub (such as [Home Assistant Green](#)) and Z-Wave end devices. A few characteristics are listed below:

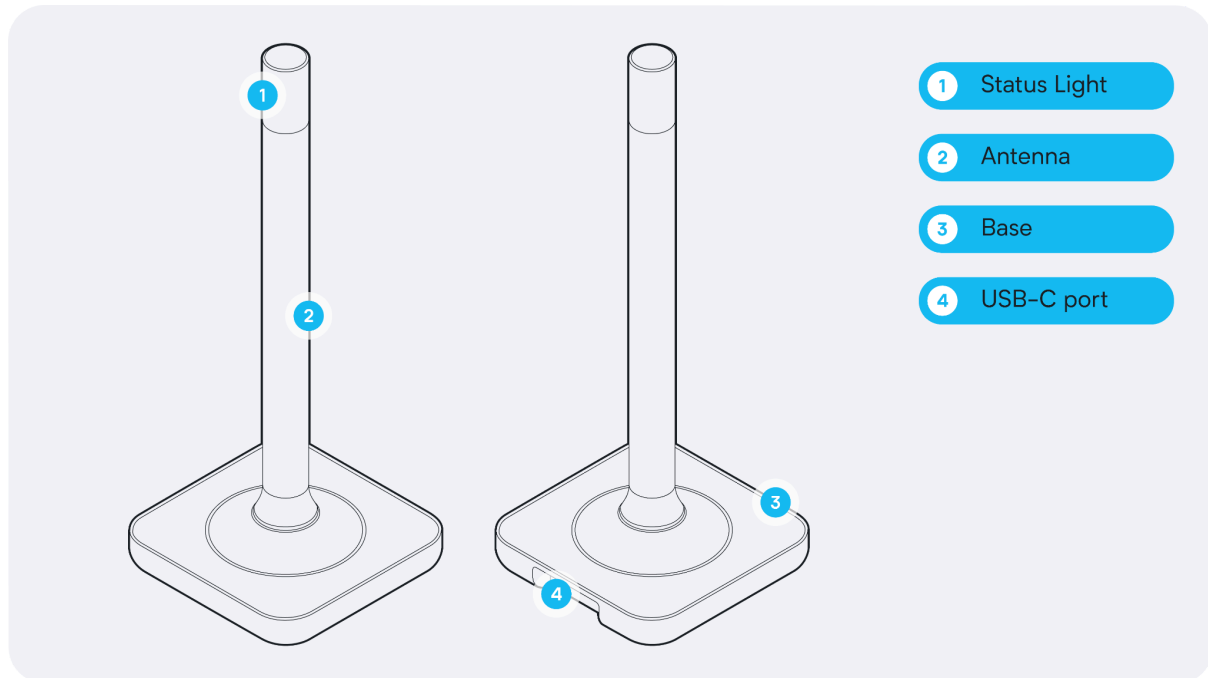
- Home Assistant Connect ZWA-2 features an optimized, large antenna to reach devices where others can't.
- Z-Wave uses a radio spectrum that is better for getting through thick walls and long distances.
- Z-Wave stays out of the way of Wi-Fi and Bluetooth, meaning less congestion and interference.
- Because Home Assistant Connect ZWA-2 can hear the faintest signals, devices have to communicate less. This helps with network stability and battery life of the end devices.
- Home Assistant Connect ZWA-2 supports all frequencies and regions and both Z-Wave (mesh) and Z-Wave Long Range protocols.
- Z-Wave (mesh) and Z-Wave Long Range each have their own benefits and use cases. Z-Wave Long Range doesn't support a mesh network but allows for larger deployments (up to thousands of devices) and better communication with distant devices.
- Note that by default, the radio frequency of Home Assistant Connect is set to EU Long Range. For more information, read the section on [Overriding the radio frequency](#).

## Related topics

- [Z-Wave integration documentation](#)
- [Home Assistant documentation](#)



## Device overview



## Status colors

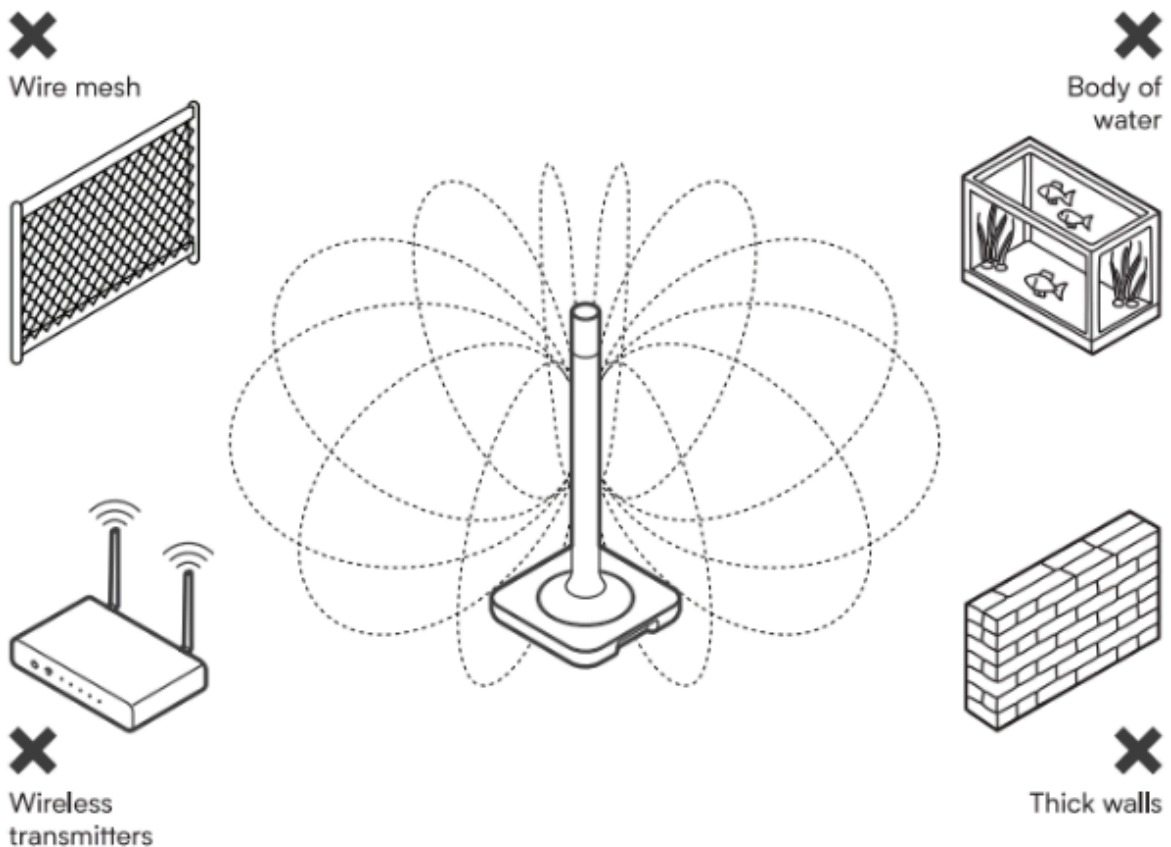
The following color patterns are used to indicate a status:

Color pattern	Status
White blinking (may appear blue-ish)	<b>Waiting for connection</b> Not connected yet to Z-Wave integration
White solid (may appear blue-ish)	<b>Connected</b> The device is connected to the Z-Wave integration.
Yellow blinking	<b>Suboptimal antenna orientation</b> The device is not mounted correctly. Remount the device so that the antenna is in a vertical position, with the light pointing up or down (if mounted on the ceiling, for example).

# Finding an installation location for the Home Assistant Connect ZWA-2

Before installing and using Home Assistant Connect ZWA-2, find a good spot for it.

- Some objects, such as thick walls, wire mesh, metal (such as server rack housings or wall mounting brackets), other transmitters (such as computers, routers, USB 3.0 ports), or even your aquarium, can cause interference or block signals.
- Place the device away from objects that may cause interference.
  - To check if your device is in a good spot or if there is interference, follow the steps under [How do I know my ZWA-2 is far enough from other wireless transmitters to avoid interference?](#)



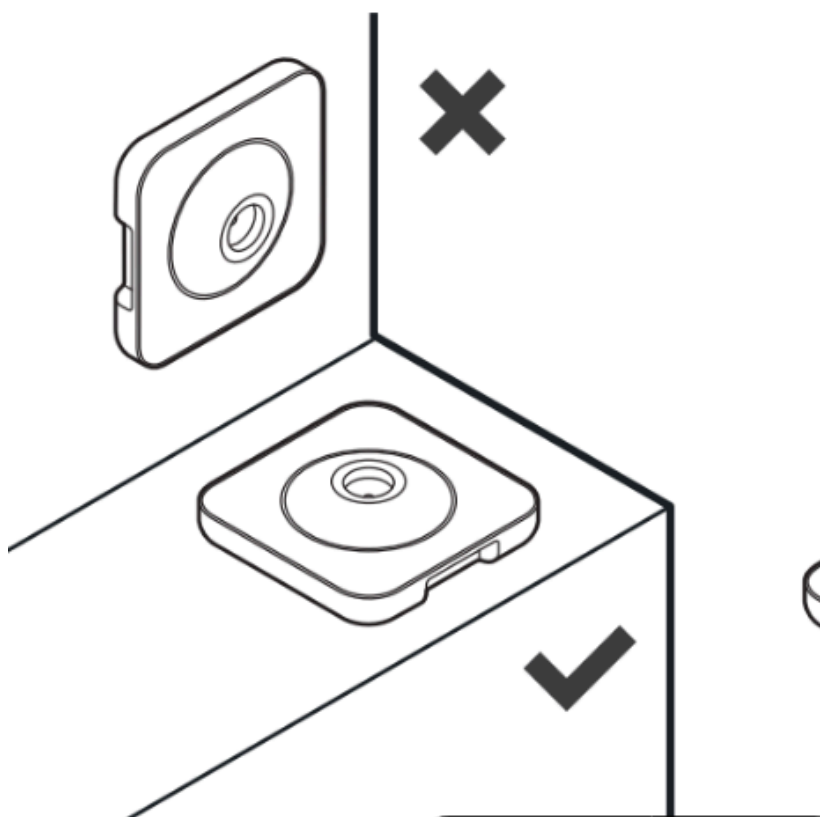
# Mounting Home Assistant Connect ZWA-2

Before connecting Home Assistant Connect ZWA-2 to Home Assistant, assemble it and mount it in the location you want it to be.

# 1

Find a space where you can place the antenna upright.

Keep the antenna oriented upright. Do not mount on a wall sideways.



# 2

Screw the antenna to the base. Be careful not to overtighten.



# Connecting the device to Home Assistant

Before you can use Home Assistant Connect ZWA-2, you need to connect it to Home Assistant.

## Prerequisites

- Home Assistant smart home hub with a USB 2.0 port, for example, a [Home Assistant Green](#)
  - If you do not have Home Assistant installed on the hub yet, refer to the [installation page](#) for instructions.
- Home Assistant 2025.7 or newer installed on your smart home hub
- Home Assistant Connect ZWA-2 with a USB-C to USB-A cable

## I'm new to Z-Wave: Connect ZWA-2 to Home Assistant

If you don't have a Z-Wave network yet, follow these steps to [connect Home Assistant Connect ZWA-2 to Home Assistant](#)

If you are outside the EU, you might need to change the radio frequency and power level:

- Changing the radio frequency: The radio frequency of Home Assistant Connect ZWA-2 is set to EU Long Range. If you are outside the EU, you might need to [override the radio frequency in the Z-Wave JS add-on](#).
- Changing the power level:
  - If you use Home Assistant Connect ZWA-2 with Home Assistant, you do not need to change the power level.
  - But if you use another hub, you might need to change it. To find the correct values for your region, refer to the section [About power levels](#).

## I already have a Z-Wave network with Home Assistant: Migrate your Z-Wave network to Home Assistant Connect ZWA-2

If you already have a Z-Wave network, follow the steps in the Z-Wave integration documentation on [migrating your Z-Wave network to Home Assistant Connect ZWA-2](#).

- **If you are using the Z-Wave JS UI add-on** (and not the default Z-Wave JS add-on)
  - Before starting migration, disable the Z-Wave JS integration
    - Go to **Settings > Devices & services** and select the **Z-Wave** integration and select the three-dot menu and select **Disable**.
  - Do the migration in Z-Wave JS UI.



- Open the **Z-Wave JS UI** control panel and in the bottom-right corner, select the purple **Advanced actions** button.
  - Under **NVM Management**, select **Backup**.
  - Unplug the adapter and connect ZWA-2.
  - Under **Settings > UI > Z-Wave**, enter the region and save.
  - In the control panel, select the purple **Advanced actions** button and under **NVM Management**, select **Restore**.
  - Enable the Z-Wave integration again.
- **If you use ZWA-2 outside Europe:**
- Check the radio frequency: The radio frequency of Home Assistant Connect ZWA-2 is set to EU Long Range. If you are migrating from a device with a frequency set to another region, you need to override the radio frequency in the Z-Wave JS add-on.
  - Check the power level: If you use Home Assistant Connect ZWA-2 with Home Assistant, you do not need to change the power level. But if you use another hub, you might need to change it. To find the correct values for your region, refer to the section About power levels.

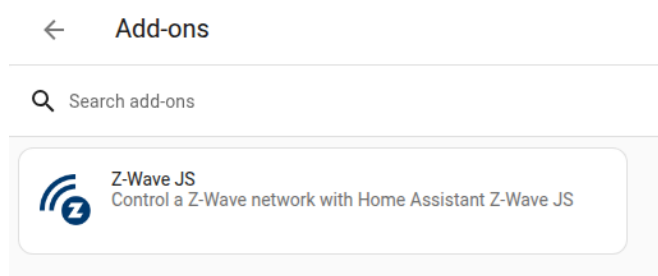


# Overriding the radio frequency region and transmit power level

## Overriding the radio frequency

The radio frequency used by Z-Wave devices depends on your region.

- By default, the radio frequency and transmit power of Home Assistant Connect is set to EU Long Range.
- If you use the **Z-Wave JS** add-on, you do not need to do anything. The Z-Wave JS add-on automatically adjusts the region based on the location defined for your Home Assistant hub.
  - If you did not have Z-Wave before and only just started with ZWA-2, you are using the Z-Wave JS add-on.
  - If you want to double-check, go to **Settings > Add-ons** and look for the **Z-Wave JS** add-on.



- If needed, you can [override the radio frequency region](#) in the **Z-Wave JS** add-on.
- If you are using Home Assistant Connect ZWA-2 with the **Z-Wave JS UI** add-on or another automation platform, you can change the radio frequency region there.
- The frequency of end devices cannot be changed, so you need to make sure to buy devices specific to your region.

## Overriding the transmit power level

If you use Home Assistant Connect ZWA-2 with Home Assistant, the transmit power levels are set automatically. You do not need to do anything.

If you use another hub, you might need to change the transmit power level. Refer to the section [about transmit power levels](#) to find the right values.

## Adding a new device to the Z-Wave network

Once you have added Home Assistant Connect ZWA-2 to Home Assistant, you can add your Z-Wave devices to your Z-Wave network.

Follow the steps in the Z-Wave documentation on [adding a device to your Z-Wave network](#).



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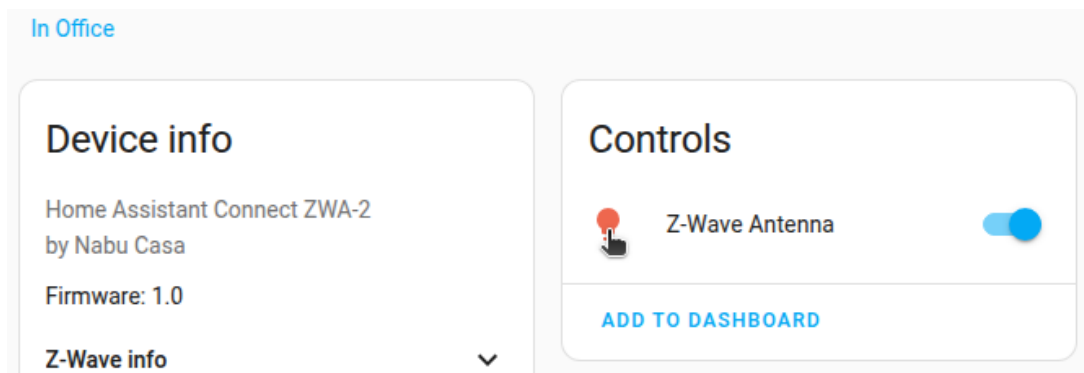
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# Changing the active color of the LED

The active color is the color that the LED is showing when the device is connected to the Z-Wave integration in Home Assistant. By default, the LED is white.

## To change the active color of the LED

1. Go to **Settings > Devices & services** and select the Z-Wave integration card.
2. From the list of devices, next to Home Assistant Connect ZWA-2, select the arrow button.
3. Under **Controls**, select the light and choose the color from the picker.



**Note:** the color of the light might have a blue-ish tint and may not look exactly as shown in the software.

4. You can also turn the light on or off.

## Updating the device firmware

You can update the firmware of Home Assistant Connect ZWA-2 by uploading a firmware file.

Follow the steps in the Z-Wave integration documentation on [updating the device firmware](#).

## Data handling

### What data is stored on Home Assistant Connect ZWA-2

The Home Assistant Connect ZWA-2 stores your Z-Wave network information as well as paired devices. It does not store any other user data, such as Wi-Fi credentials.

### Backing up your Z-Wave network

A backup exports the Z-Wave network information as well as paired devices. Follow the steps in the Z-Wave documentation on [backing up your Z-Wave network](#).

### Resetting your Home Assistant Connect ZWA-2

Before passing the device on to someone else, you should reset it to delete the network information.

Follow the steps in the Z-Wave documentation on [resetting a Z-Wave adapter](#).

## Removing Home Assistant Connect ZWA-2 from Home Assistant

**Option 1:** [remove Z-Wave completely from Home Assistant](#)

**Option 2:** [migrate your network from Home Assistant Connect ZWA-2 to another adapter](#)



# Troubleshooting

## Enabling debug logs

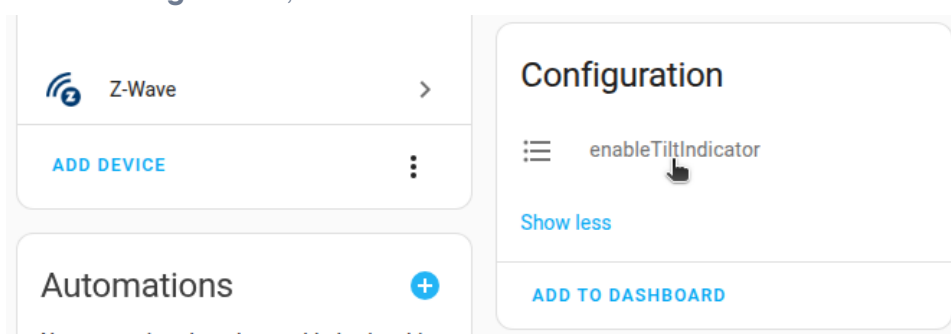
For troubleshooting, it can be helpful to [enable debug logs](#).

## Disabling the tilt indicator (stop yellow blinking)

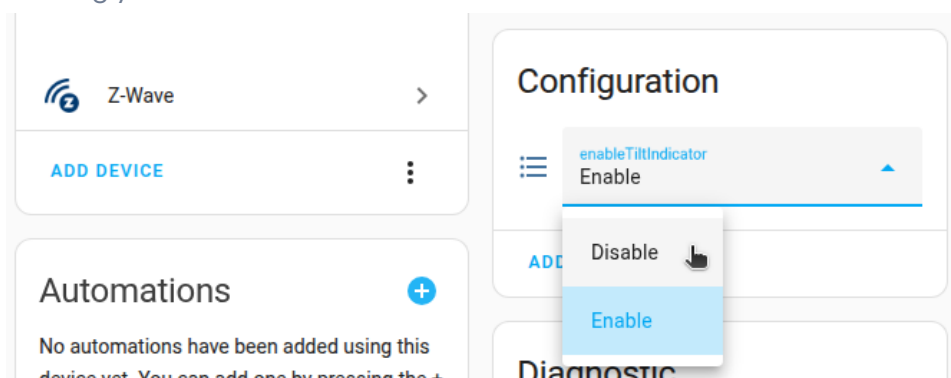
For ideal signal transmission, the antenna should be placed in a vertical position, either facing upright or downward (if mounted on the ceiling, for example). If the antenna is not in a vertical position, the LED blinks yellow. It is not recommended to do this, but if you want to mount it horizontally, you can disable this tilt indicator.

### To disable the tilt indicator

1. Go to **Settings > Devices & services** and select the Z-Wave integration card.
2. From the list of devices, next to Home Assistant Connect ZWA-2, select the arrow button.
3. Under **Configuration**, select **enableTiltIndicator**.



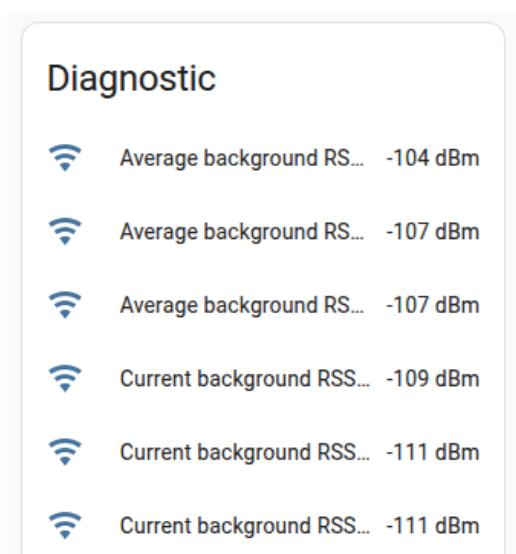
4. In the dialog, select the cogwheel and **enable** the entity.
5. Once the entity is enabled, you can now disable the tilt indicator so that it stops blinking yellow when the device is tilted.



## FAQ

### How do I know my ZWA-2 is far enough from other wireless transmitters to avoid interference?

1. Go to **Settings > Devices & services** and select the Z-Wave integration card.
2. From the list, select the adapter and under **Diagnostic**, check the **background RSSI** values.
  - To see the values, you need to enable the entities:
    - Select each **background RSSI** entity, and in the dialog, select the cogwheel. Then select the **Enable** toggle.
  - The **average background RSSI** values should be between -100 and -110 dBm, ideally closer to -110 dBm.
    - A value above -110 dBm is not better.
  - If the value doesn't look good, move the device around until you find a good spot for it. You can check the **Current background RSSI** to see if you are moving in a good direction.
  - See also [Finding an installation location](#).



### What are the default region and output power levels of ZWA-2

- By default, the radio frequency region of Home Assistant Connect is set to EU Long Range.
- The power level is set to Europe.

## About transmit power levels

If you use Home Assistant with the Z-Wave JS add-on, the transmit power levels are configured automatically. You do not need to do anything.

If you use another hub (not Home Assistant), you may need to change the transmit power levels. The location of the transmit power level setting depends on your hub.

There are 3 values that can be set:

- Normal transmit power level (sometimes called TX power level)
- Max. Long Range transmit power level
- Power level calibration (also called "measured power at 0 dBm")

Normal power transmit level depends on the region:

EU	+13 dBm
US	-1 dBm
Rest of the world	Unknown. You could try EU levels.

Max. Long Range transmit power level also depends on the region:

EU	+14 dBm
US	+20 dBm
Rest of the world	does not apply, no Long Range outside of EU/US yet

Power level calibration should not be changed. This is hardware-specific. For the ZWA-2 it should be 0 dBm.

# Specifications

## Product

Model No.	NC-ZWA-9734
Conformity	CE, FCC, RCM
FCC-ID	2A8ZE03
Origin	Made in China

## Product details

SoCs	Silicon Labs ZG23 ESP32-S3 (USB-serial bridge)
Power and data	USB-C, 5 V DC, 1 A
Supported protocols	Z-Wave, Z-Wave Long Range
Z-Wave series	800

## Antenna characteristics

Frequency range	860-930 MHz
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**The frequency used by end devices depends on the region, e.g:**

**US:** 908.42/916MHz (mesh)  
912/920MHz (LR)  
**EU:** 868.4/869.85 MHz (mesh),  
864.0/866.0 MHz (LR)  
**AU:** 919.8/921.4 MHz

Peak gain	3.38 dBi
Radiation pattern	Omnidirectional



## Product

Model No. NC-ZWA-9734

### Device characteristics

Dimensions & weight 125x125x315 mm, 350 g |  
In box: 345x222x45 mm, 600 g

Material Enclosure

- Polycarbonate plastic
- Colors: White and semi-transparent

Environmental conditions for operation

Indoor use only  
0 °C to 65 °C  
32 °F to 149 °F

Humidity: non-condensing  
Keep in dry, not excessively dusty environment as this can cause damage to the unit.

Do not leave the unit in direct sunlight or near any heat source, as this can cause overheating.

