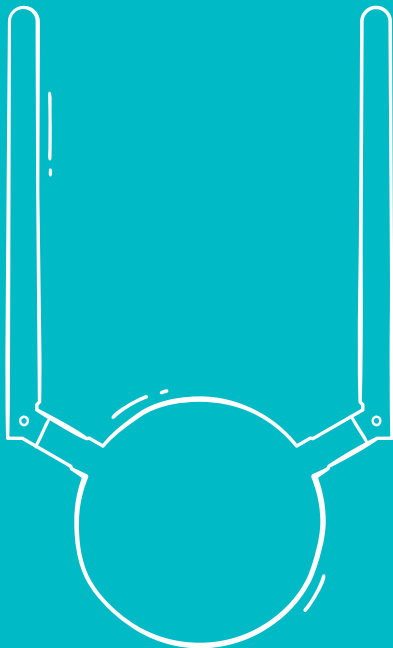Z·WAVE zigbee matter
Bluetooth™ THREAD

Z-Station

USB Adaptor for Z-Wave
& Zigbee/Thread/BLE

ZME_ZSTATION_ZW_ZB
ZMEEZSTATION_ZW_ZB (EU)
ZMEUZSTATION_ZW_ZB (US)

Congratulations!

You have got Z-Station, a modern Z-Wave® & Zigbee/Thread/Bluetooth Low Energy (BLE) USB Adaptor. It will transform your computer into a full featured smart home gateway.

Installation Steps

1. Connect Z-Wave and Zigbee/Thread/BLE antennas to Z-Station and position them vertically.

2. Connect the Z-Station to your computer using one of the two USB-cables shipped with the Z-Station.

3. Install Z-Way software or other smart home software and select the USB ports for Z-Wave and Zigbee under Main menu > Apps > Z-Wave Binding and Zigbee Binding.
For Linux it is /dev/ttyUSB0 and /dev/ttyUSB1 respectively.
On Windows use Device Manager to find the right COM-port.

The maximum potential of Z-Station is achieved together with the Z-Way software.

To install Z-Way on your computer visit https://storage.z-wave.me/z-way-server/ site.

Supported platforms are: Debian/Ubuntu x64, Raspbian OS armhf (32 bits), FreeBSD (C library only), Windows 32 bits. More platforms are available upon request.

NOTE: Z-Station is also compatible with other third party Z-Wave software supporting Silicon Labs Z-Wave Serial API and Zigbee EZSP/Thread Spinel/BLE Serial API.

After the successful installation of Z-Way, make sure that your are in the same local network as your embedded hardware and open the Z-Way Web UI using a browser by typing in the address bar: http://IP:8083.

PRIVACY NOTE: Z-Way by default connects to the server find.z-wave.me in order to provide remote access. If you don't need this service, you can turn off this feature after logging into Z-Way (Main menu > Settings > Remote Access).

All communications between Z-Way and the server find.z-wave.me are encrypted and protected by certificates.

Learn More

Full documentation, training videos and technical support can be found on the website https://z-wave.me/products/z-station/. You can change the Z-Wave radio frequency at any time by going to the Expert UI http://IP:8083/expert, Network > Control and select the desired frequency from the list. Make sure to use the correct antenna for the selected frequency.

Interface

1 Dashboard
2 Rooms
3 Widgets
4 Events
5 Quick automation
6 Main menu
7 Device widgets
8 Widget settings
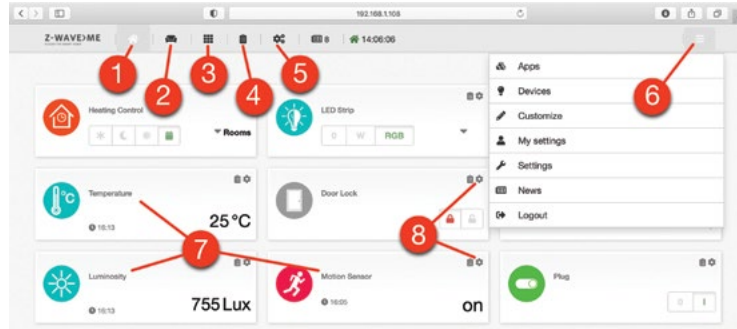
The "SmartHome" user interface looks similar on different devices such as desktops, smartphones or tablets, but adapts to the screen size. The user interface is intuitive and simple:

Favourite devices are displayed on the Dashboard (1)
A devices can be assigned to a Room (2)
The full list of all devices is in Widgets (3)
Every sensor or relay triggerings are displayed in Events (4)
Set up scenes, rules, schedules and alarms in Quick Automation (5)
Apps and system settings are in the Main menu (6)
The device can provide several functions, for example a 3-in-1 Multisensor provides: motion sensor,

light sensor and temperature sensor. In this case there will be three separate widgets (7) with individual settings (8).

Advanced automation can be configured using local and online Apps. Apps allow you to set up rules like "IF > THEN", to create scheduled scenes, set auto off timers. Using applications you can also add support for additional devices: IP cameras, Wi-Fi plugs, EnOcean sensors and set up integrations with Apple HomeKit, MQTT, IFTTT etc. More than 50 applications are built-in and more than 100 can be downloaded for free from the Online Store. Applications are managed in the Main menu > Apps.
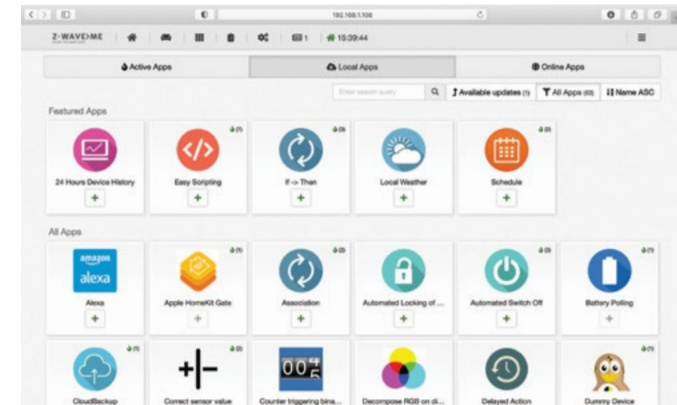
Z-Wave Firmware Upgrade

Z-Station constantly improves and adds new features. To use them, you need to update. Firmware upgrade can be performed from the Z-Way Expert User Interface under Network > Controller Information.

Zigbee/Thread/BLE Firmware Upgrade

Z-Station can run Zigbee, Thread, Bluetooth Low Energy or Multi-protocol firmwares.

Firmware upgrade and switching between different protocols is done using a special tools available from: https://z-wave.me/support/tools-for-zigbee-openthread-ble/

Zniffer Tool

Z-Station can also run in the Zniffer mode. Both modem and PTI modes are supported. PTI port is connected to extension pins.

Please consult this page for more information: https://z-wave.me/products/zniffer/

Z-Station as a Z-Wave and Zigbee Repeater

It is also possible to use Z-Station as a Z-Wave and/or Zigbee/Thread repeater. A special repeater firmware is required for the corresponding chip. In the repeater mode Z-Station can be powered using USB or with 3 or 5 Volts connected to the extension pins.

Wall-mounting

Z-Station can be placed horizontally on a table, on a shelf or vertically on a wall. Use the set of screws for wall-mounting shipped with Z-Station. For smooth installation use the wall-mounting template:

46 mm (1,811")
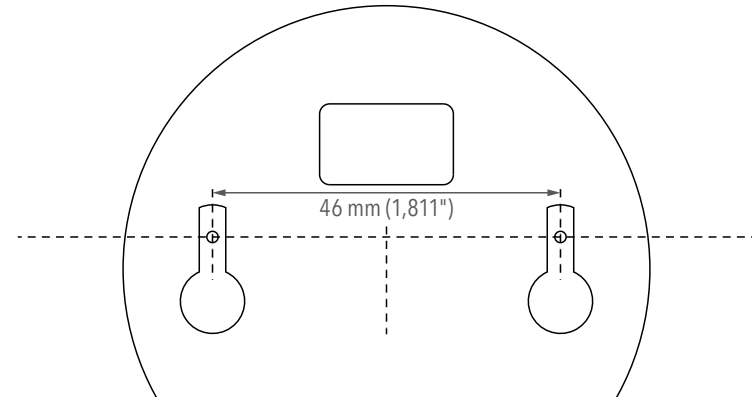
Antenna Connection

Z-Station is equipped with two antennas for Z-Wave (868 MHz or 916 MHz) and for Zigbee/Thread/BLE (2.4 GHz). The picture below shows the location of 868/916 MHz and 2.4 GHz antenna connectors.
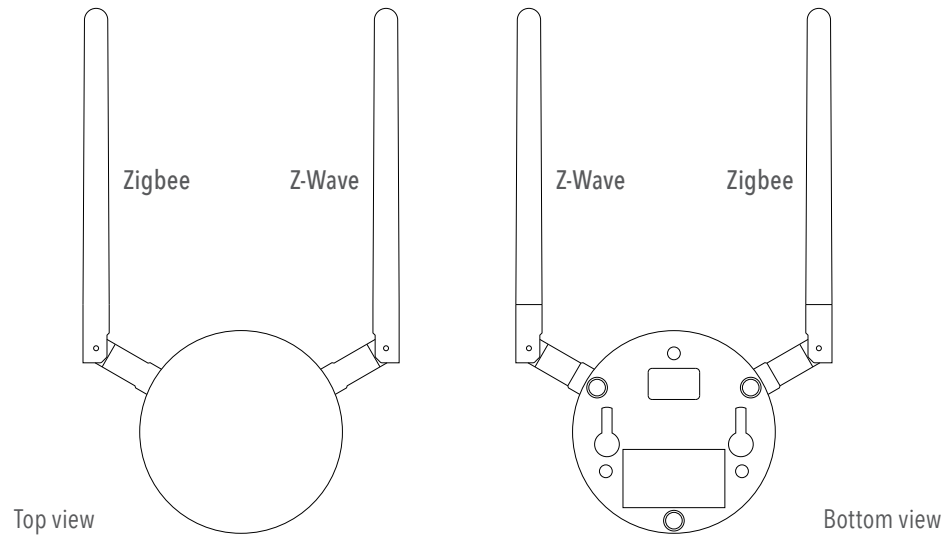
To achieve the best radio performance, make sure to always position antennas vertically and far from metal parts and cables.

Zigbee   Z-Wave

Z-Wave   Zigbee

Top view

Bottom view

Additional Features and Extension Pins

Z-Station has additional extension pins for advanced features such as:

- alternative 3 Volts or 5 Volts power connector (using 3V & GND or 5V & GND pins),

- radio packet trace interface (PTI) compatible with the Z-Wave.Me Zniffer software,

- additional UART interface (requires a custom firmware),

- GPIO pins (requires a custom firmware).
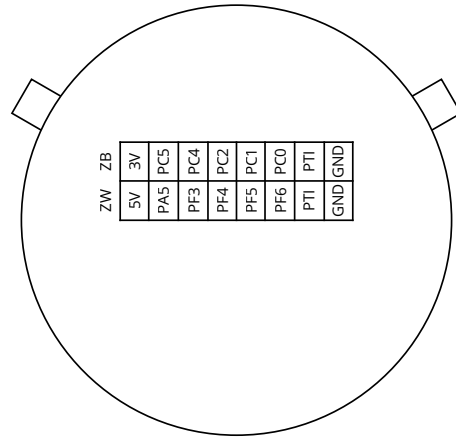
Pins in the ZB row (except for 3V and GND pins) are pins of the Zigbee/Thread/BLE EFR32MG21 chip. Pins in the ZW row (except for 5V and GND pins) are pins of the Z-Wave ZGM130S chip.

Z-Station can also run with Z-Uno firmware and drive GPIO pins. Check **https://z-uno.z-wave.me** for more info about the Z-Uno project.

Mobile App Z-Wave.Me
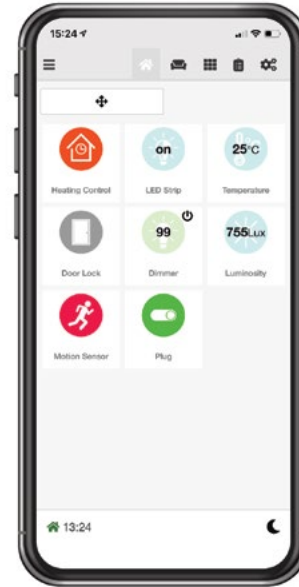
Hardware Specification

Z-Wave Transceiver	Silicon Labs ZGM130S
Z-Wave Protocol	Z-Wave Plus® v2
	Z-Wave Long Range
Zigbee Transceiver	Silicon Labs EFR32MG21P
Wireless Range	Min. 40 m indoor in direct line of sight (measured with Linx Technologies Inc antenna)
Dimensions	ø70 x 22 mm (without antennas)
Interface	USB (USB-C connector)
USB driver	Silicon Labs CP2105
Z-Wave frequency range	865...869 MHz: Europe (EU), India (IN), Russia (RU), China (CN), South Africa (EU), Middle East (EU)
	908...920 MHz: America, excluding Brazil and Peru (US), Israel (IL)
	919...928 MHz: Australia / New Zealand / Brazil / Peru (ANZ), Hong Kong (HK), Japan (JP), Taiwan (TW), Korea (KR)
Zigbee/Thread/BLE frequency range	2.4 GHz, IEEE 802.15.4

Linx Technologies/TE Connectivity Antenna Selection

Protocol	Z-Wave EU/IN/RU/CN	Z-Wave US/IL/ANZ/HK/JP/TW/KR	Zigbee/Thread/ Bluetooth Low Energy
Band	865-870 MHz	908-928 MHz	2400-2490 MHz
Color Code	Grey ⬛	Yellow 🟨	Rose 🟥
ZME_ZSTATION_ZW_ZB	–	–	–
ZME**E**ZSTATION_ZW_ZB	+	–	+
ZME**U**ZSTATION_ZW_ZB	–	+	+

Connector polarity: RP-SMA female
Antenna polarity: RP-SMA male

Box content

The Z-Station box includes the following items:

- Z-Station

- Z-Wave antenna (868 MHz or 916 MHz)

- Zigbee/Thread/BLE antenna (2.4 GHz)

- USB-C to USB-C cable

- USB-C to USB-A cable

- Set of screws for wall mounting and a wall-mounting template

- Quick start guide

FCC Statement

FCC Device ID: 2ALIB-ZMEZSTAZWZB

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

FCC 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 20cm between the radiator and your body.

Integration instructions for host product manufacturers according to KDB 996369 D03 OEM Manual v01.

Information on test modes and additional testing requirements:

IEEE 802.15.14 (Zigbee/Thread):
Operation Frequency: 2402~2480 MHz
Number of Channel: 40 Channels Modulation

Type: OQPSK
Antenna Type: External antenna
Antenna Gain (Peak): 3.2 dBi

Z-Wave:
Operation Frequency: 908.42 MHz, 912 MHz, 916 MHz, 920 MHz
Number of Channel: 4 Channels
Modulation Type: GFSK
Antenna Type: External antenna
Antenna Gain (Peak): 1.2 dBi

The module can be used for mobile or portable applications with a maximum 3.2dBi (for 2.4 GHz) and 1.2 dBi (for 916 GHz) antenna. The host manufacturer installing this module into their product must ensure that the final composit product complies with the FCC requirements by a technical assessment or evaluation to the FCC rules, including the transmitter operaition. The host manufacturer has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

Z-WAVE›ME

BUILDS THE SMART HOME

Z WAVE
PLUS LR

Manufactured by
Smart Systems Distribution Sàrl
15B, av. Edmond Vaucher
1219 Châtelaine, Switzerland

EAC FC C E