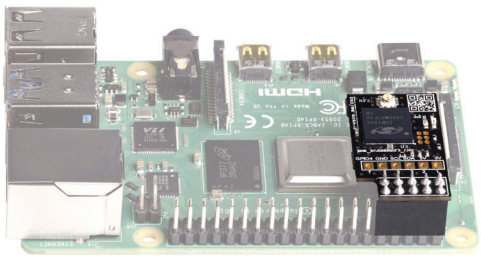
RAZBERRY 7 PRO

Z-WAVE SHIELD
WITH EXTERNAL ANTENNA

ZMEERAZBERRY7_ANT
ZMEURAZBERRY7_ANT



RaZberry 7 Pro Z-Wave shield (Raspberry Pi not included)

Congratulations! You have got a modern Z-Wave™ shield RaZberry 7 Pro with extended radio range. RaZberry 7 Pro will transform your Raspberry Pi into a full featured smart home gateway.

Installation steps:
1. Install the RaZberry 7 Pro shield on the Raspberry Pi GPIO
2. Install Z-Way software

The RaZberry 7 Pro shield is designed to work with the Raspberry Pi 4 Model B, but is fully compatible with all previous models, such as: A, A+, B, B+, 2B, Zero, Zero W, 3A+, 3B, 3B+. The maximum potential of the RaZberry 7 Pro is achieved together with Z-Way software.

There are several ways to install Z-Way:
1. Download a flash card image based on Raspberry Pi OS with pre-installed Z-Way (flash card minimum size is 4 GB)
   https://storage.z-wave.me/z-way-server/raspberryPiOS_zway.img.zip
2. Install Z-Way on Raspberry Pi OS from an apt repository:
   wget -q -O - https://storage.z-wave.me/RaspbianInstall | sudo bash
3. Install Z-Way on Raspberry Pi OS from a deb package:
   https://storage.z-wave.me/z-way-server/

It is recommended to use the latest version of Raspberry Pi OS

NOTE: RaZberry 7 Pro is also compatible with other third party Z-Wave software supporting Silicon Labs Z-Wave Serial API.

After the successful installation of Z-Way, make sure that Raspberry Pi has Internet access. In the same local network go to https://find.z-wave.me, you will see the local IP address of your Raspberry Pi below the login form. Click on the IP to reach the Z-Way Web UI initial setup screen. The welcome screen shows the Remote ID and will prompt you to set the administrator password.

NOTE: If you are in the same local network with the Raspberry Pi, you can access Z-Way Web UI using a browser by typing in the address bar: http://RASPBERRY_IP:8083.

After setting the administrator password you can access the Z-Way Web UI from anywhere in the world, to do this go to https://find.z-wave.me, type ID/login (e.g. 12345/admin) and enter your password.

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 ABOUT RAZBERRY 7 PRO

Full documentation, training videos and technical support can be found on the website https://z-wave.me/raz.

You can change the radio frequency of the RaZberry 7 Pro shield at any time by going to the Expert UI http://RASPBERRY_IP:8083/expert, Network > Control and select the desired frequency from the list.

RaZberry 7 Pro shield constantly improves and adds new features. To use them, you need to update the firmware and activate the necessary functions. This is done from the Z-Way Expert UI under Network > Controller Information.

https://z-wave.me/raz

INTERFACE

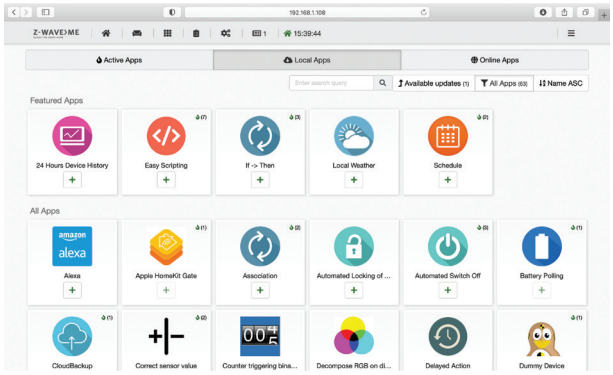
The "SmartHome" user interface looks similar on different devices such as desktops, smartphones or tablets, but adapts to the screen size. The user interface is intuitive and simple:

Dashboard (1)
Rooms (2)
Widgets (3)
Events (4)
Quick automation (5)
Main menu (6)
Device widgets (7)
Widget settings (8)

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

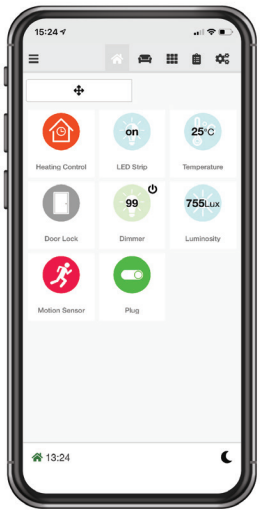
The device can provide several functions, for example a 3-in-1 Multisensor provides: motion sensor, light sensor and temperature sensor. In this case there will be three separate widgets (7) with individual settings (8).

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.



powered by
Z-WAVE>ME
BUILDS THE SMART HOME

MOBILE APP Z-WAVE.ME

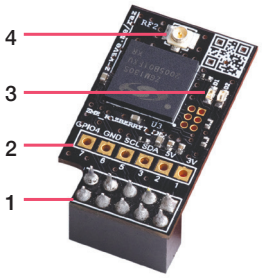


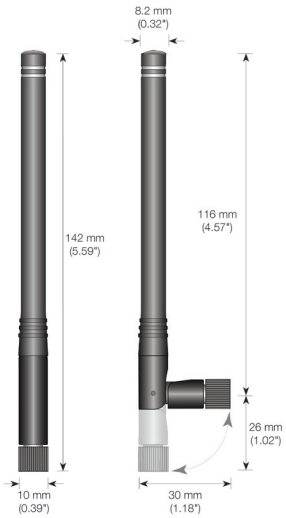
Download on the App Store

GET IT ON Google Play

SHIELD DESCRIPTION

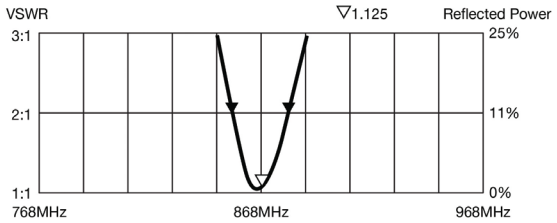
1. The connector sits on pins 1-10 on the Raspberry Pi
2. Duplicate connector
3. Two LEDs for operation indication
4. U.FL connector for external antenna connection



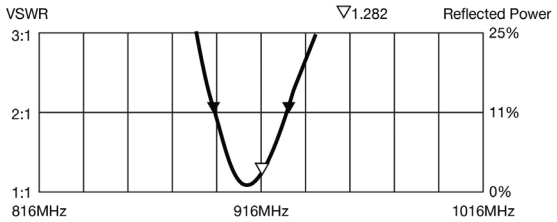


ANTENNA

The kit includes a 100 mm Linx SMA coaxial cable with a U.FL connector and a Linx antenna with a base that can rotate to 360° and tilt to 90°. The Linx antenna has a high radio signal transmission efficiency, which increases the range of the radio communication.



The Linx ANT-868-CW-HWR-RPS antenna is used for 865...869 MHz **(ZMEERAZBERRY7_ANT)**



The Linx ANT-916-CW-HWR-RPS antenna is used for 908...917, 919...921 MHz **(ZMEURAZBERRY7_ANT)**

RaZberry7 Pro can work in Z-Wave sniffer mode, which sniffs all Z-Wave packets and can decrypt them. A special feature is the ability to send an arbitrary packet to any Z-Wave network, this can be used to debug third-party Z-Wave devices. You need to install on your computer software Z-Wave.Me Zniffer and Advanced Radio Toolkit (A.R.T.).

Details here https://z-wave.me/manual/zniffer

Z-Wave Transceiver	Silicon Labs ZGM130S
Wireless Range	Min. 40 m indoor in direct line of sight Z-Wave Long Range – 1.6 km
Self-Test	When powering on, both LEDs must shine for about 2 seconds and then go off. If they don't, the device is defective. If the LEDs do not shine for 2 seconds: hardware problem. If the LEDs are faintly shining constantly: hardware problems or bad firmware.
Dimensions/Weight	30 x 17 x 12 mm / 16 gr
LED indication	Red: Inclusion and Exclusion Mode Green: Send Data.
Interface	TTL UART (3.3 V) compatible with Raspberry Pi GPIO pins
Frequency range	**ZMEERAZBERRY7_ANT:** (865...869 MHz): Europe (EU), India (IN), Russia (RU) [default], China (CN), South Africa (EU), Middle East (EU) **ZMEURAZBERRY7_ANT:** (908...917 MHz): America, excluding Brazil and Peru (US) [default], Israel (IL) (919...921 MHz): Australia / New Zealand / Brazil / Peru (ANZ), Hong Kong (HK), Japan (JP), Taiwan (TW), Korea (KR)

FCC STATEMENT

FCC Device ID: 2ALIB-ZMERAZBERRY7A

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.

NOTE: This equipment has been tested and found to comply with the limits for Class B digital devices, 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 distance between the equipment and the receiver.
3. Connect the equipment into an outlet on a different circuit to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for assistance.

Use of the shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules. Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, it may be necessary to stop the operation of the equipment.

NOTE: If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.

Radiation Exposure Statement: This equipment complies with the set out FCC radiation exposure limits for an uncontrolled environment.

Co-location warning: This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

OEM integration instructions: This module has a LIMITED MODULAR APPROVAL, and is intended only for OEM integrators under the following conditions: As a single, non-colocated transmitter, this module has no restrictions in relation to a safe distance from any user. The module shall be only used with the antenna(s) that has/have been originally tested and certified with this module. As long as these conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements necessary for this installed module (for example, digital device emissions, PC peripheral requirements, etc.).