



Atrim Stick

Stick:NA:M



Figures 1

User Manual

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Description & Features



Figures 2

The Z-Stick Mini exposes the well-documented and proven Z-Wave Serial API via USB. It allows the host processor to control Z-Wave, Z-Wave Plus and Z-wave LR devices through the Z-Wave protocol. With the developer PC application software, PC Controller, or any software compliant with Z-Wave Serial API, the host is empowered to communicate with various Z-Wave devices through the Z-Wave Command Classes, making your computer the heart of your Z-Wave network.

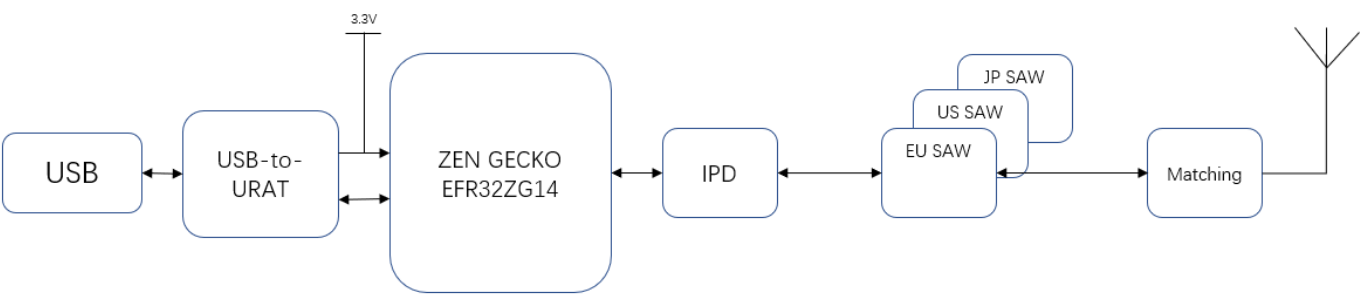
Z-Stick Mini easily enables you to create your own Z-Wave gateway that is locally or remotely hosted with a PC or single-board computers, such as Beagle Bone Black and Raspberry Pi.

Product Specifications

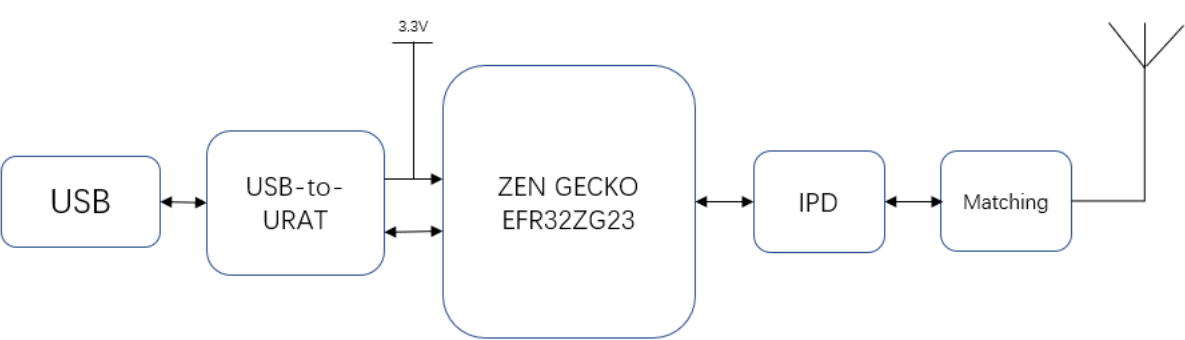
General Specifications	ERF32ZG14 Zen Gecko SoC	ERF32ZG23 Zen Gecko SoC
Potocal	Z-Wave Library	Z-Wave Library
USB Powered	5.00 ± 0.25 V	5.00 ± 0.25 V
RF Transmit current	22 mA (typ.)	12 mA (typ.)
RF Receive current	20 mA (typ.)	10 mA (typ.)
RF Transmit Power	Up to +13 dBm (max.)	Up to +14 dBm (max.)
RF Sensitivity		
<ul style="list-style-type: none">• 9.6 kbps• 40 kbps• 100 kbps	<ul style="list-style-type: none">• 101 dBm (typ.)• 100 dBm (typ.)• 97 dBm (typ.)	<ul style="list-style-type: none">• 109.3 dBm (typ.)• 109.7 dBm (typ.)• 108.1 dBm (typ.)
Operating Temperature	-20 to 75°C	
Internal antenna	Metal spiral antenna	
Sleep Current	< 25 µA	
Range	100 m open space line-of-sight	
Z-Wave Libraries		
Bridge Controller		
Z/IP Application	Version	7.17.2.0

Block Diagram

ERF32ZG14 Zen Gecko SoC



ERF32ZG23 Zen Gecko SoC



Quick Start Up

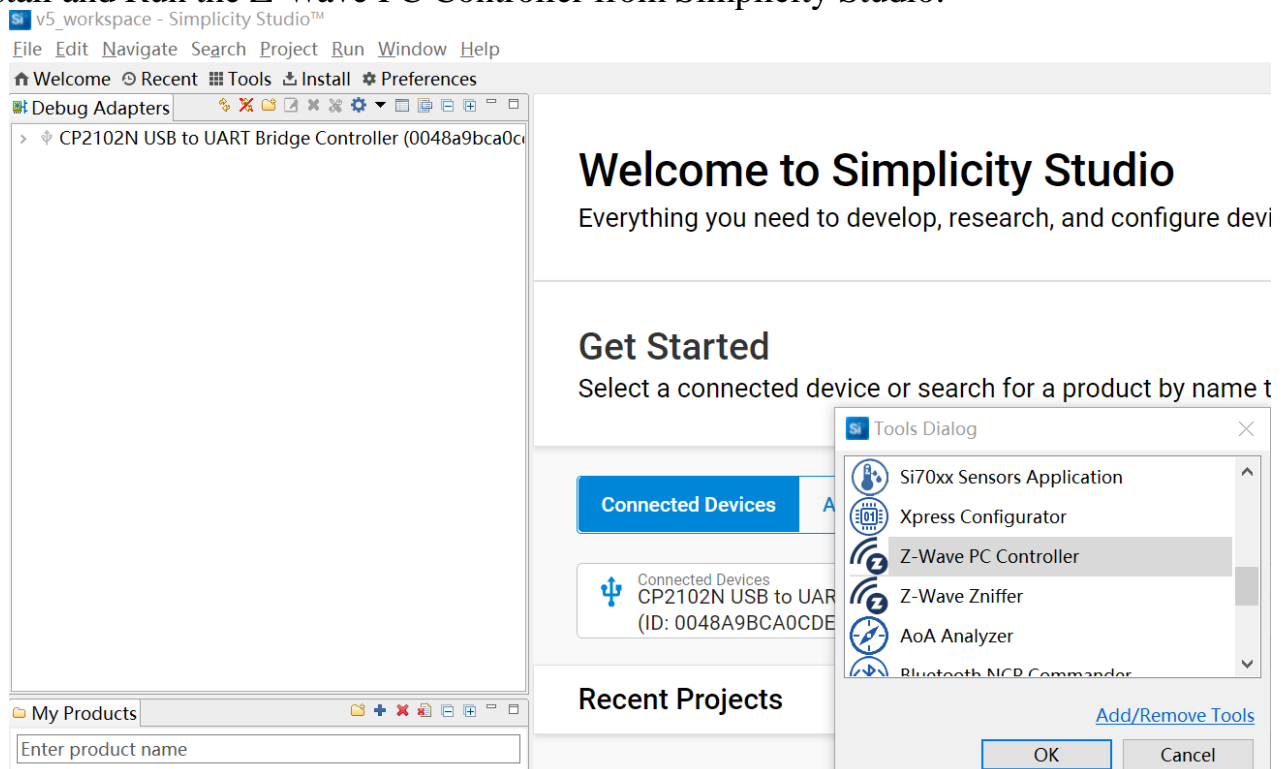
Here is a Quick Start Up guide to get Z-stick Mini to work with the Z-Wave PC Controller. The Z-Wave PC Controller is a PC application software tool that enables communications with Z-Wave nodes, such as switches and sensors.

Connect Z-stick Mini to your computer.

Install the Virtual COM Port (VCP) drivers and CP210x VCP Drivers, if required by your Operating System. The latest drivers are available at <http://www.silabs.com/interface-software>. Note: The driver is WHQL certified. No installation is required for Window OS.

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1. Install and Run the Z-Wave PC Controller from Simplicity Studio.



2. Click on the “Setting-wheel” in the Right-Top corner of the PC Controller and select “Silicon Labs CP210x USB to UART Bridge”. Click OK.

COM15

Included nodes: 1

Settings

Serial Port Data Sources:

Name	Version	Description	Type	IP Address	Port	Description
COM15		Silicon Labs CP210x USB				

Socket Data Sources:

Count: 3

Size, Mb: 10

Duration, min: 0

OK

Cancel

Enable Watchdog

Capture communication trace to

Capture Folder:

Keep last files

Auto split by:

Detect

Refresh

Add

Clear All

Discover

3. Click on Network Management.

COM15

Included nodes: 1

Id: 1
Home Id: F8 CB 9D F8
Network Role: SUC, RealPrimary, SIS,
NodeIdServerPresent
Source: COM15

OTA Firmware Update

OTW Firmware Update

Network Management

Command Classes

Encrypt / Decrypt

Setup Route

Topology Map

NVM Backup/Restore

Configuration Parameters

ERTT

Polling

Associations

IMA Network

Smart Start

Set Controller Node Info

Transmit Settings

Network Statistics

Version 5.53.103

4. Z-Stick Mini is detected and appears as [S2] Pc Controller. The bottom panel displays that the Z-Wave Command Class is supported by Z-Stick Mini.

COM15 - Z-Wave PC Controller

COM15 - Network management

☐ Floating View

Id	Type	Sch	LR	Lsr	V
▼ Controllers (1)					
1	[S2] Pc Controller			✓	✓

1 [S2] Pc Controller

- Properties1: 0xD3
- Properties2: 0x96
- Properties3: 0x03
- Basic Device Class: 0x02 - STATIC_CONTROLLER
- Generic Device Class: 0x02 - STATIC_CONTROLLER
- Specific Device Class: 0x01 - PC_CONTROLLER
- Command Classes:
- Role Type: CONTROLLER_CENTRAL_STATIC_CONTROLLER

Add
Add Virtual
Replace Failed
Add Custom

Remove
Remove Virtual
Remove Failed

0
NOP
Set as SIS
Neighbors Update

NWE
Is Failed

Node Info

Get Version

Basic Set ON

Basic Set OFF

wakeup Interval 5

Switch All ON

Switch All OFF

Indicator Set

Start Test 'Basic Get'

Reset SPAN

Next SPAN

Security Scheme

Classic Learn Mode

Select Learn Mode

Reset

Send Node Info

RF Receiver Set OFF

Shift

Update

Mpan Table

▼ Id: 1

- Home Id: F8 CB 9D F8
- Network Role: SUC, RealPrimary, SIS, NodeIdServerPresent
- DSK: 33197-02640-15313-45910-26331-43001-48728-45341
- Pu: 81AD0A503BD1B35666DBA7F9BE58B11DC8EA1CF6F54653DE3EB3
- Serial API: ControllerBridgeLib, ver.9
- Z-Wave device chip: ZW0800
- Z-Wave device firmware: Z-Wave 7.17

FCC Warning

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.

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:

- 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.