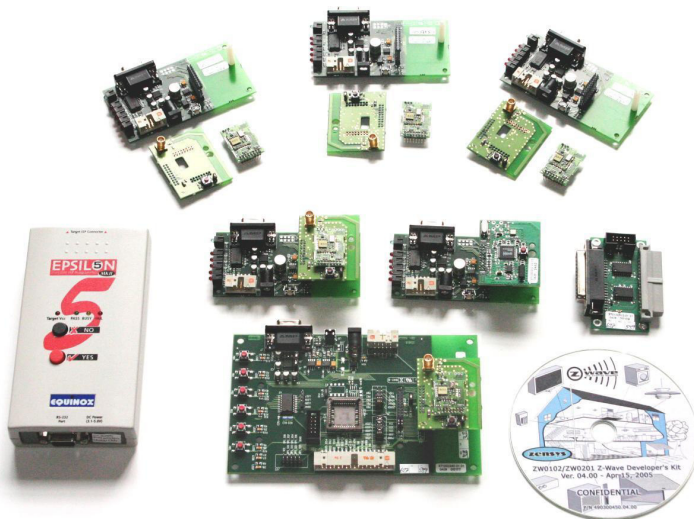


# Z-Wave™ Developer's Kit v4.x for Wireless Networking



Zensys' Z-Wave™ Developer's Kit v4.x enables developers and Original Equipment Manufacturers (OEMs) to design, and develop products that network wirelessly using the RF based Z-Wave Technology.

The Z-Wave Developer's Kit v4.x is based on Zensys' ZW0201 Single Chip, a mixed signal chip integrating a RF transceiver, memory, and a MCU capable of handling both the Z-Wave Protocol and the OEM's application software storage in one single chip. The Z-Wave Protocol and Z-Wave Single Chips deliver a low-cost, low power consumption, wireless networking solution targeted for residential and light commercial control and status reading applications including lighting, HVAC, and appliance control.

The Z-Wave Developer's Kit contains all the software and detailed documentation necessary to design and write OEM application software on top of the Z-Wave Protocol API, as well as to test and debug the final Z-Wave product.

In addition, the Z-Wave Developer's Kit contains 5 Z-Wave ZM2102 Modules that can be integrated into an OEM's product.



## Developer's kit v4.x features:

- Complete Z-Wave Protocol and Network documentation
- Fully RF qualified Z-Wave Modules for building into OEM prototypes
- Versatile Development Module for easy HW prototyping
- Sample code libraries included for fast application prototyping
- PC interface SW for easy communication between a PC and the Z-Wave Modules
- Real-time Z-Wave Analyzer included for frame flow and network analysis
- Optional Consulting Services for rapid product development



## About Zensys:

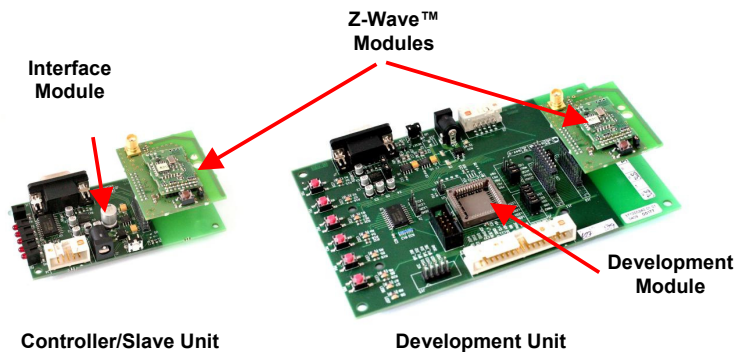
Zensys ([www.zen-sys.com](http://www.zen-sys.com)) is a leading provider of wireless networking technology for control and status reading applications. Our Z-Wave™ technology is an RF based, two-way; mesh network, communications protocol that enables everyday devices to be controlled and monitored wirelessly.

Zensys offers a family of low-cost, low-power, radio chip sets embedded with Z-Wave, as well as a suite of development tools and services making it easy for companies to develop wireless products for residential and light commercial applications including lighting and appliance control, energy management, access control, security, and building automation.

# Z-Wave™ Developer's Kit Contents

The Z-Wave Developer's Kit v4.x includes the following items:

- 1 Development Unit (*Z-Wave Module* can be mounted on top)
- 5 Controller/Slave Units (each consisting of a *ZM2102 Z-Wave Module* and *converter modules* mounted on top of an *Interface Module*)
- 5 Small Form Factor ZM2102 Modules
- 1 ZM1220 Z-Wave module (for Zniffer)
- 1 ZetupRF Module for dynamic RF parameter setting
- 1 Equinox Technologies Epsilon5 MKII portable ISP programmer, incl. full software suite
- 6 Power Adapters and 1 Battery Pack
- 2 Serial Cables
- 1 CD containing documentation and software directories
- 5 Antennae (UHF flexi)



## Introduction to Z-Wave

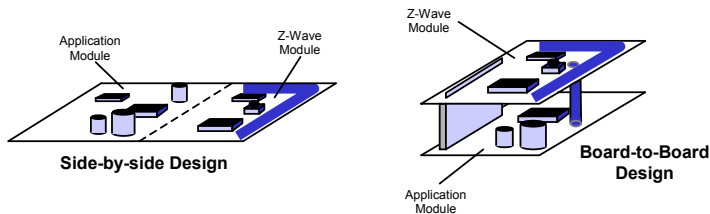
The Development Unit and Controller/Slave Units come pre-programmed with sample code emulating a Lighting Control application. This will enable OEM Design Engineers to immediately start using and testing the Z-Wave Network capabilities and to quickly familiarize themselves with the features of the Z-Wave Protocol.

In addition, the real-time Z-Wave Frame Flow Analyzer tool, Zniffer, allows the engineer to examine the flow of communication between the various devices in the network.

## Fast development of prototypes and short Time-to-Market

The Z-Wave Modules can be removed from the Development and Interface Modules, and be built directly into the OEM prototypes via an Application connector.

This enables the developer to quickly integrate the Z-Wave Technology into any device, thereby transforming it into a wirelessly controllable device.



In parallel with the HW integration, the sample code libraries included in the Developer's Kit allows the application SW developer to quickly develop new applications, and to test these – initially by using the many interface opportunities on the Development and Interface Modules, and later on by testing in the final HW solution.

To implement a Z-Wave™ solution into your company's next project, please contact Zensys at:

**Europe**  
Zensys A/S  
Emdrupvej 26  
2100 Copenhagen O  
Denmark  
Tel: +45 70 20 99 40  
Fax: +45 70 20 99 50

[www.zen-sys.com](http://www.zen-sys.com)

**USA**  
Zensys Inc  
One Park Way  
Upper Saddle River, NJ 07458  
USA  
Tel: +1 (201) 785-1940  
Fax: +1 ((201) 785-1946

## Z-Wave™ Developer's Kit v4.x Specifications

### Z-Wave Module (ZM2102)

- 9.6kbps RF data rate
- 868.42 MHz (EU) or 908.42 MHz (US)
- 8051 microprocessor core
- 32MHz X-tal clock frequency
- 16MHz internal system clock
- Optional EEPROM
- 32kbyte Flash memory for Z-Wave API Library and OEM application SW
- 2kbyte SRAM memory for Z-Wave API Library and OEM application SW
- 10 general purpose I/Os
- 2 interrupt inputs
- 4 multiplexed 12/8 bit ADC inputs

### Development Module

- RS-232 interface
- ISP programming interface
- 8 user configurable LED's
- 6 user configurable push buttons
- 3 Z-Wave application connectors
- User programmable CPLD with access to all interfaces and additional 8 bit I/O connector

### Interface Module

- RS-232 interface
- ISP programming interface
- 5 User configurable LED's
- Z-Wave application connector

### Software

- Z-Wave Protocol and API Libraries
  - Controller API
  - Static Controller API
  - Installation Controller API
  - Slave API
  - Routing Slave API
  - Enhanced Slave API
  - Bridge API
- Source code for sample applications
  - Development Controller
  - LED Dimmer
  - Binary Sensor
  - PC Controller
  - PC based Installer Tool
  - Serial Controller & Slave API
- Z-Wave development tools
  - Zniffer, Z-Wave Frame Flow Analyzer
  - ZetupRF, RF configuring tool
  - EQTools, Equinox ISP programmer GU

### Available Add-On Kits

- I/O Module