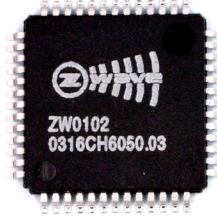


ZW0102

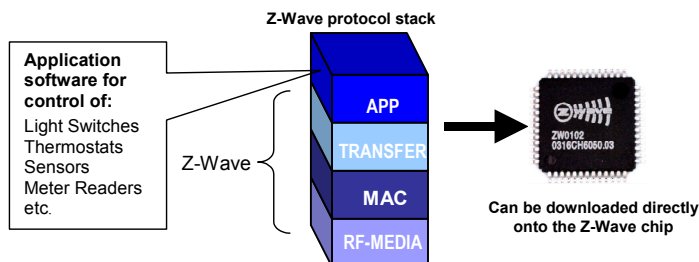
Z-Wave™ Single Chip



The ZW0102 Z-Wave™ Single Chip is an advanced implementation of Zensys' Z-Wave wireless control networking technology offering a low cost, lower power consumption, and small form factor solution.

Zensys' Single Chip solution is specially suited for control and status reading applications including lighting, HVAC, and appliance control, while the optional security capabilities through HW encryption support and SW authentication/key-exchange is suited for sensors, alarm systems, automatic meter reading and energy management systems.

The ZW0102 is a mixed signal chip integrating RF transceiver, Z-Wave protocol storage and handling, and OEM product application storage and handling in one single chip. An on-chip 8 bit MCU handles both the OEM application as well as the wireless communication protocol. Free on-chip flash memory gives the OEM the opportunity to download and run just about any control application directly on the Z-Wave Single Chip. This eliminates the need for an additional micro controller and external Flash memory for application code storage.



Zensys provides a range of tools including reference RF circuitry designs and a comprehensive Developer's Kit to enable rapid OEM development. Complete ready-to-go application code examples are tailored to the OEM engineer's needs with fast time-to-market in mind.



ZW0102 Features:

- Mixed Signal IC with 8051 MCU core and RF Transceiver in a Single Chip
- Low Cost for use in Mass Market Products
- Reliable Wireless Communication
- HW Supported Cipher Capabilities
- Future Proof and Versatile for Integration into any Product



About Zensys:

Zensys (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.

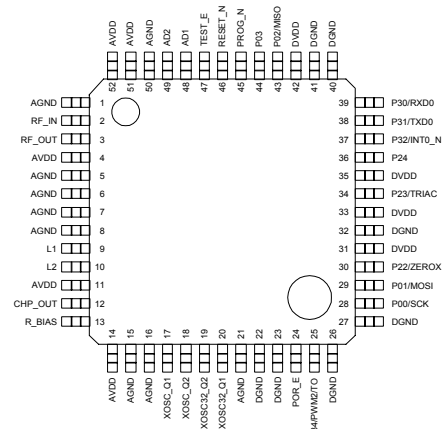
Zensys offers a family of low-cost, low-power, radio chip sets embedded with Z-Wave, as well as a suite of development tools and services making it easy for companies to develop wireless products for residential and light commercial applications including lighting and appliance control, energy management,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

ZW0102 Z-Wave Single Chip Benefits

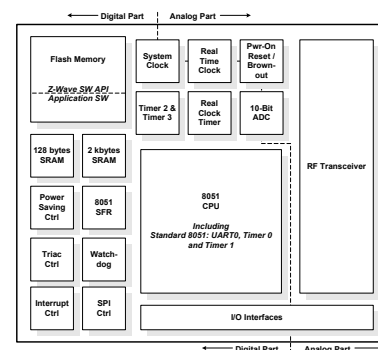
- Low cost wireless connectivity
- Free on-chip Flash memory for OEM application SW
- Eliminates the need for an additional micro controller to run the application
- For smooth OEM product development, Zensys offers a range of reference designs of the PCB circuitry surrounding the Z-Wave chip – including antenna circuitry and filters

ZW0102 Product Specifications

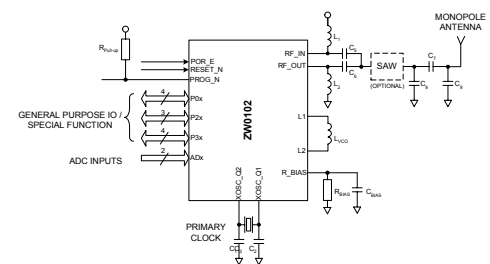
RF frequency	868.42MHz (EU) 908.42MHz (US)
RF data rate	9.6kbps
Receiver sensitivity	Typ: -96dBm
Programmable output power	-20 to 4dBm
Clock frequency	7.376974MHz
Power consumption: - Transmit - Receive - Power down (wake up on reset)	Typ: 34mA @ 4dBm Typ: 20mA Typ: 1µA @ 25°C
Microprocessor type	8051
Flash memory for Z-Wave API Library & OEM Application SW	32kbyte
SRAM memory for Z-Wave API Library & OEM Application SW	2kbyte
Serial interfaces	56kbaud UART SPI
Package	TQFP 52 pins, 10x10mm body size
Digital I/Os	11 (some with dual function)
Analog I/Os	4
Optional Cipher/ Security Features	DES and 3DES
Operating Temperature	-35 to 85°C



ZW0102 Single Chip Pin-Out (top-view)



ZW0102 Single Chip Block Diagram



Typical Application

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

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

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