ZM3102
Z-Wave® Integrated Wireless Module for Home Control

The ZM3102 represents the third-generation of Z-Wave® wireless technology, and is ideal for easily adding Z-Wave® control and status capabilities to home control, home security monitoring, and home energy management products. The ZM3102 module includes a Z-Wave® chip and external components required to implement a complete, drop-in solution.

The wireless mesh network technology automatically routes the RF signal from one Z-Wave® node to the next, around obstacles and radio dead spots, resulting in high reliability and assured whole-home coverage.

The ability to also use the Z-Wave® protocol over IP (Internet Protocol) networks allows Z-Wave® enabled products to connect seamlessly using the wireless mesh network, the home network, and the Internet.

Z-Wave® allows both manufacturers and consumers the security of knowing that Z-Wave® certified products, regardless of brand, will work together.

Target Markets
- Home control
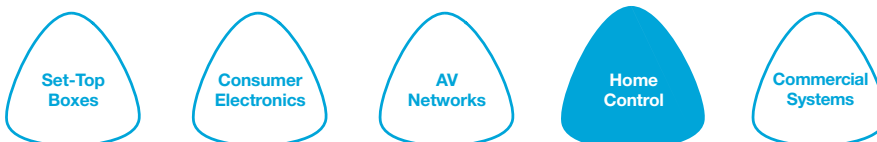- Home security and monitoring
- Home energy management

Benefits
- Integration of home, entertainment, security, and energy management control with metadata support
- Seamless interoperability between multiple vendors and applications
- Robust and reliable whole-home coverage through mesh networking
- Z-Wave® protocol over IP (Internet Protocol) networks, such as home network and Internet
- Supports unicast, multicast, and broadcast messages
- Low power consumption for multi-year battery life

Features
- Integrated CPU and RF transceiver
- 32KB flash, 2KB SRAM
- Triac controller
- 4-ch 12-bit rail-to-rail ADC
- Integrated GPIO, SPI, UART, PWM
- Ultra-low power sleep mode
- 40 kbps data rates, low latency
- Uses the unlicensed Short-Range Device (SRD) frequency bands
- Battery monitor and built-in supply regulators
- Power supply: 2.1-3.6V
- 12.5x13.6mm module, 18 pins
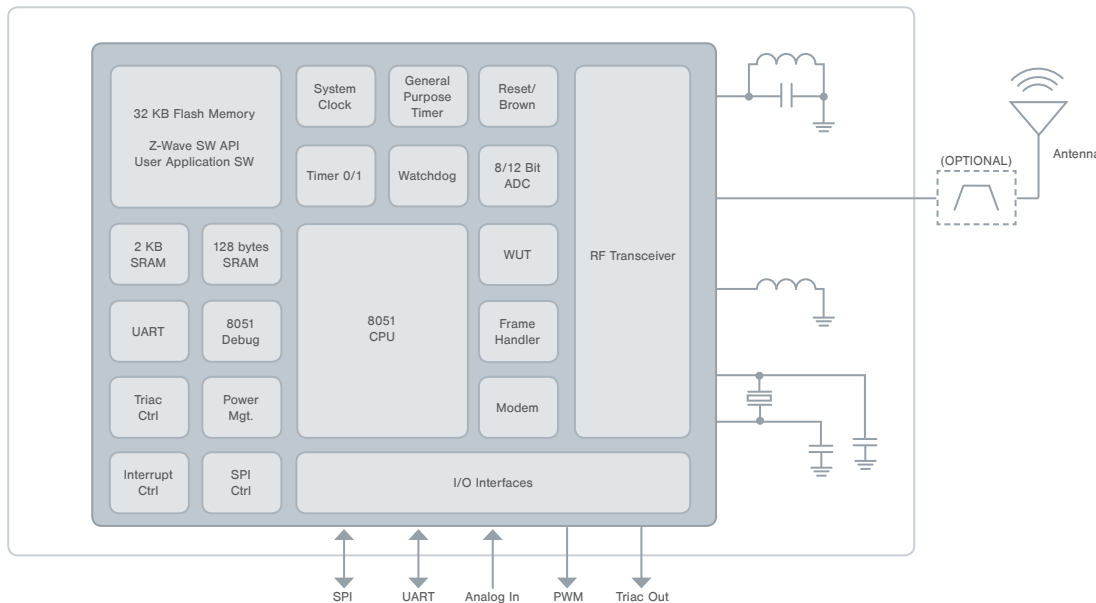
Powering the new digital home

Set-Top Boxes

Consumer Electronics

AV Networks

Home Control

Commercial Systems

ZM3102
Z-Wave® Integrated Wireless Module for Home Control

SIGMA DESIGNS

ZM3102

SPI   **UART**   **Analog In**   **PWM**   **Triac Out**

Z-WAVE® HOME CONTROL MODULE SELECTION GUIDE

	ZM3102	ZM4101	ZM4102
Frequency	868.40…921.42 MHz	779…956 MHz	779…956 MHz
Program Memory	32 KB flash	64 KB OTP	64 KB OTP
SRAM	2 KB	16 KB	16 KB
NVRAM		64 B	64 B
GPIO	10	32	10
Keyboard Scan		128 keys	
UARTs	1	2	1
SPI Ports	1	2	1
USB		•	
AES Security		•	•
IR Transmitter		•	
IR Learning		•	
Data Rate	40 kbps	100 kbps	100 kbps

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