

ZM4101

Z-Wave® Integrated Wireless Module for Home Control



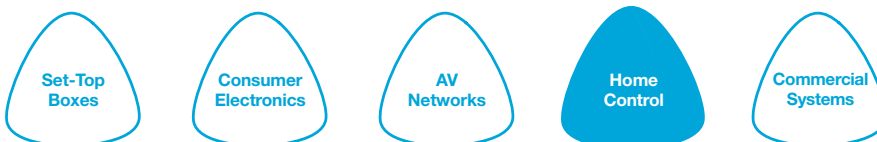
The ZM4101 represents the fourth-generation of Z-Wave® wireless technology, and is ideal for easily adding Z-Wave® control and status capabilities to home control, home security monitoring, and home energy management products. The ZM4101 module includes a Z-Wave® chip and external components required 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.

Powering the new digital home



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
- IR generation and learning
- 64KB OTP, 16KB SRAM, 64B NVRAM
- 1000 DIM step Triac controller
- 4-ch 12-bit rail-to-rail ADC
- Integrated GPIO, SPI, UART, PWM, USB, 128-key matrix scan
- AES 128 security engine
- 4-ch LED controller
- Ultra-low power sleep mode
- 100 kbps data rates, low latency
- Uses frequency bands 779...956 MHz for complete global coverage
- Concurrent multi-channel support reduces external interference
- Superior blocking performance
- Battery monitor and built-in supply regulators
- Power supply: 2.3-3.6V
- 8x8mm SiP module, QFN56 form factor

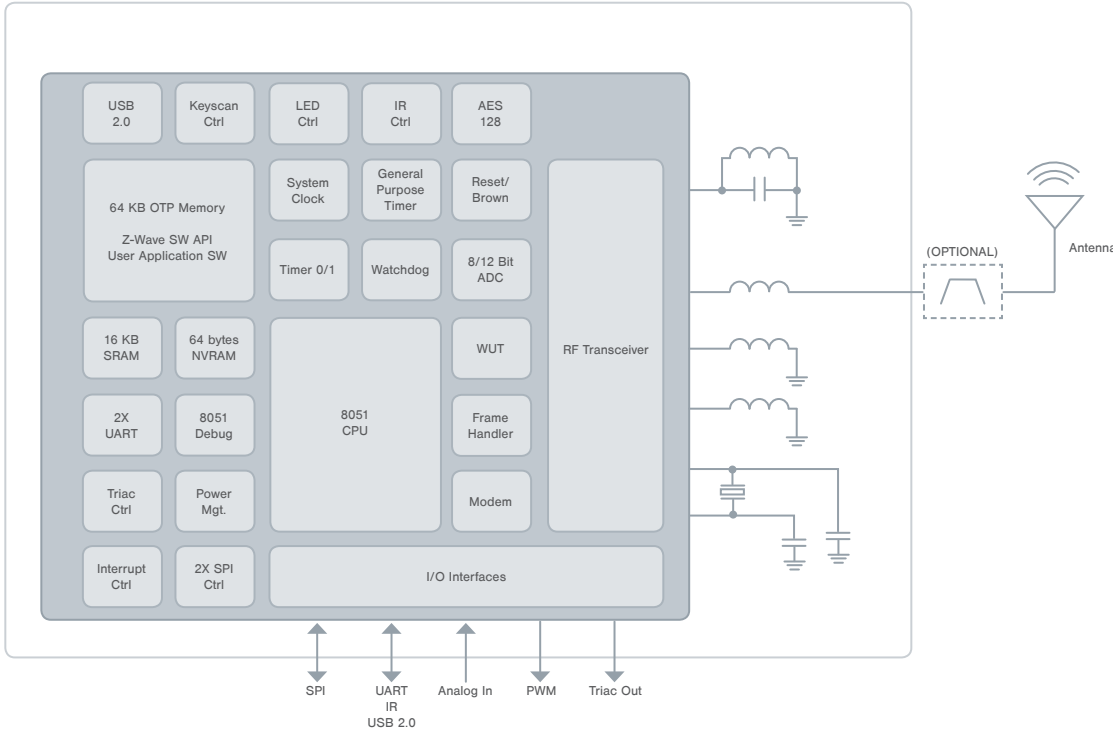


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Z-WAVE® HOME CONTROL MODULE SELECTION GUIDE

	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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