

# SD3402

## Z-Wave® Wireless Controller for CE and Set-top Box Products



The SD3402 represents the fourth-generation of Z-Wave® wireless technology, and is ideal for easily adding Z-Wave® control and status capabilities to RF remote controls, set-top boxes, and CE products.

For RF remote control applications, Z-Wave® overcomes the line-of-sight limitation of IR, enabling reliable two-way communications and whole-home coverage. Program names, song titles, artist names, channel identification, etc. can now be seen from the remote control.

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.

### Target Markets

- RF/IR remote control
- Set-top boxes, thin clients, and CE products that support home security monitoring and home energy management

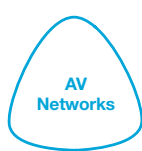
### Benefits

- 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 transmitter
- 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, 88-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

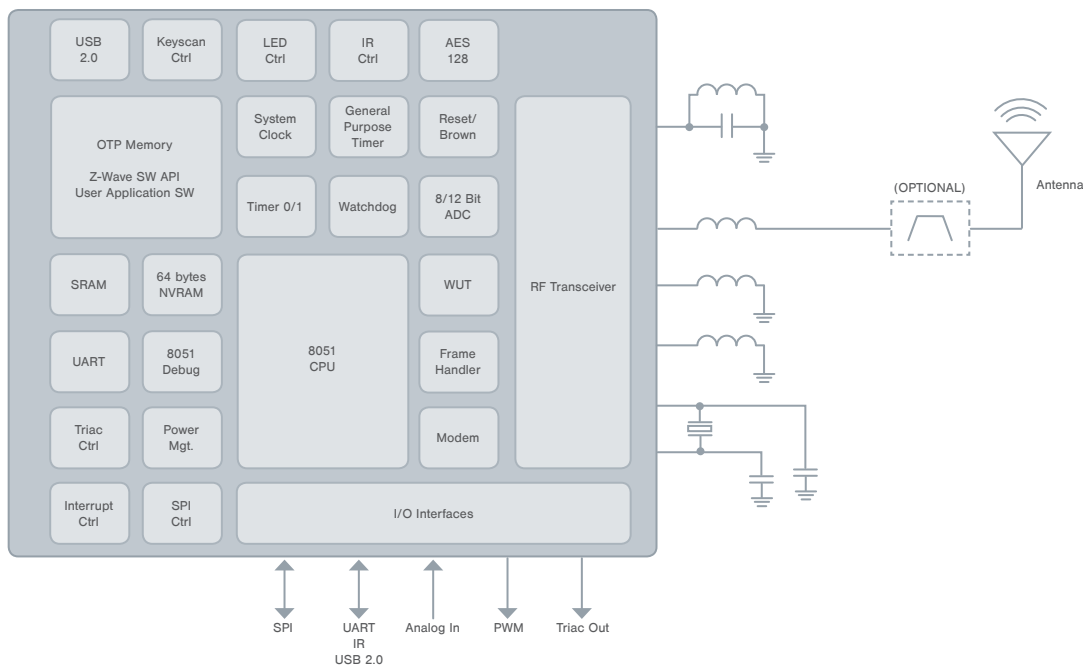
### Powering the new digital home



# SD3402

## Z-Wave® Wireless Controller

### for CE and Set-top Box Products



#### Z-Wave® CE/STB Controller Selection Guide

SD3402	
Frequency	779...956 MHz
Program Memory	64 KB OTP
SRAM	16 KB
NVRAM	64 B
GPIO	23
Keyboard Scan	88 keys
UARTs	1
SPI Ports	1
USB	•
AES Security	•
IR Transmitter	•
Data Rate	100 kbps

#### International Sales Distributors

**INDIA**  
Spectra Innovations  
#30, Unit 30/4,  
St. John's Road  
Bengaluru-560042, India  
Tel: +91.80.2558.8323  
Fax: +91.80.2558.1427  
www.spectraind.com

**KOREA**  
Uniquet Corp.  
Uniquet Building  
271-2 Seohyeon-dong,  
Bundang-gu, Sungnam-si,  
Gyeonggi-do, Korea, 463-824  
Tel: +82.31.708.9988  
Fax: +82.31.708.6598  
www.uniquet.co.kr

**INDONESIA, MALAYSIA, SINGAPORE**  
Convergent Systems (S) Pte. Ltd.  
60 Albert Street  
#11-01 Albert Complex  
Singapore 189969  
Tel: +65.6337.0177  
Fax: +65.6336.2247  
www.convergent.com.sg

**TAIWAN**  
Tradwell Company Ltd.  
Far East World Center,  
C Tower  
8F-8, No. 79, Sec 1  
Hsin Tai Wu Road  
Hsichih, Taipei Hsien, Taiwan  
Tel: +886.2.2698.2066  
Fax: +886.2.2698.2099

**JAPAN**  
MACNICA, Inc.  
Brilliant Technologies Company  
Macnica Bldg. No 1  
1-6-3 Shin-Yokohama  
Kohoku-ku, Yokohama,  
222-8561 Japan  
Tel: +81.45.470.9831  
Fax: +81.45.470.9832  
www.btc.macnica.co.jp

#### U.S. Sales Offices

**WESTERN U.S. (HEADQUARTERS)**  
1778 McCarthy Blvd.  
Milpitas, CA 95035  
Main: +1.408.262.9003  
Tel: +1.408.957.9871  
Fax: +1.408.957.9740  
www.sigmadesigns.com  
sales@sdesigns.com

**EASTERN U.S.**  
Sigma Designs, Inc.  
Tel: +1.585.421.3478

#### International Sales Offices

**AUSTRALIA, INDIA, INDONESIA, KOREA, MALAYSIA, SINGAPORE**  
Sigma Designs Technology Singapore  
8 Kallang Sector  
Level 10, East Wing  
Singapore 349282  
Singapore  
Tel: +65.6749.1877  
Fax: +65.6749.1844

**CHINA**  
Sigma Designs China  
Unit 7C1, TianXiang Bldg.  
Tian'An Cyber Zone,  
Futian District,  
Shenzhen, PRC  
Postcode 518048  
Tel: +86.755.83435669  
Fax: +86.755.83435629

**EUROPE**  
Sigma Designs Denmark ApS  
Emdrupvej 26 A, 1.,  
2100 Copenhagen O  
Denmark  
Tel: +45.7020.9940  
Fax: +45.7020.9950

**HONG KONG**  
Sigma Designs (Asia) Ltd.  
Unit 4001B, Tower 2,  
Metroplaza  
223 Hing Fong Road  
Kwai Fong, N.T. Hong Kong  
Tel: +852.2401.7388  
Fax: +852.2610.2177

**ISRAEL, EASTERN EUROPE**  
Sigma Designs Israel  
38 Habarzel St.  
69710 Tel Aviv  
Israel  
Tel: +972.3.769.6222  
Fax: +972.3.644.6253

**JAPAN**  
Sigma Designs Japan, KK  
KDX381 Building 2F  
3-8-11 Shin-Yokohama  
Kohoku Yokohama Kanagawa  
222-0033, Japan  
Tel: +81.45.470.5877  
Fax: +81.45.470.5876

**TAIWAN**  
Sigma Designs (Asia) Ltd.  
Far East World Center,  
C Tower  
6F-6, No. 79, Sec 1  
Hsin Tai Wu Road  
Hsichih, Taipei Hsien, Taiwan  
Tel: +886.2.7708.6818  
Fax: +886.2.2653.2278