

# WIRELESS PRODUCT SELECTOR GUIDE

SPRING 2013



SPRING 2013

Smart solutions for metering, home automation, industrial, consumer and medical applications

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# Product Selector Tables

## Wireless Products

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### Ember ZigBee ICs

PART NUMBER	FLASH (kB)	RAM (kB)	DATA RATE	FREQ. RANGE (MHz)	SENS.	ADJ CHANNEL REJECTION (15.4)	ALT CHANNEL REJECTION (15.4)	802.11g REJECTION +12/-13 MHz	TX POWER	TOTAL LINK BUDGET	DEEP SLEEP CURRENT	RX CURRENT	TX CURRENT	CRYSTAL FREQ.	VOLTAGE (V)	PACKAGE
EM351	128	12	250 kbps	2400-2500	-102 dBm (boost)	35 dB	46 dB	36 dB	-55 to +8 dBm (boost)	110 dB (boost)	400 mA (no timer)	26.5 mA (normal)	31 mA (normal @ +3 dBm)	24 MHz	2.1 to 3.6	QFN48
EM357	192	12	250 kbps	2400-2500	-102 dBm (boost)	35 dB	46 dB	36 dB	-55 to +8 dBm (boost)	110 dB (boost)	400 mA (no timer)	26.5 mA (normal)	31 mA (normal @ +3 dBm)	24 MHz	2.1 to 3.6	QFN48

### EZRadio® Universal ISM Band RF ICs

PART NUMBER	TYPE	MODULATION SCHEME (MAX kbps)		FREQUENCY BANDS (MHz)				OUTPUT POWER MAX (dBm)		SUPPLY VOLTAGE (V)	SENSITIVITY (DBM)	PACKAGE
		FSK	OOK	315	434	868	915	868 MHz BAND	434 MHz BAND			
Si4010	MCU +TX	100	50	27 - 960				10		1.8-3.6	—	MSOP10/SOIC14
Si4012	TX	100	50	27 - 960				10		1.8-3.6	—	MSOP10/SOIC14
Si4313	RX	256	40	.	.	.	.			1.8-3.6	-118/-107	QFN20
Si4355	RX	500	120	.	.	.	.			1.8-3.6	-116	QFN20
Si4455	TRX	500	120	.	.	.	.	12	13	1.8-3.6	-116	QFN20

### EZRadioPRO® Enhanced Feature Universal ISM Band RF ICs

PART NUMBER	TYPE	MODULATION SCHEME (MAX kbps)		FREQUENCY RANGE (MHz)	OUTPUT POWER RANGE (DBM)	SENSITIVITY (dBm)		RX CURRENT (mA)	TX CURRENT (dBm)				PACKAGE	
		FSK	OOK			2.0 kbps FSK	4.8 kbps OOK		0	+11	+13	+20		
Si4030	TX	256	40	900-960	-8 to +13	—	—	—	18			30		QFN20
Si4031	TX	256	40	240-930	-8 to +13	—	—	—	18			30		QFN20
Si4032	TX	256	40	240-930	+1 to +20	—	—	—		35			85	QFN20
Si4060	TX	1000	120	142-1050 Major Bands	-40 to +13	—	—	—			18			QFN20
Si4063	TX	1000	120	142-1050 Major Bands	-20 to +20	—	—	—					85	QFN20
Si4330	RX	256	40	240-960	—	-121	-110	18.5 mA						QFN20
Si4362	RX	1000	120	142-1050 Major Bands	—	-124	-112	10/13 mA						QFN20
Si4430	TRX	256	40	900-960	-8 to +13	-12	-110	18.5 mA	18			30		QFN20
Si4431	TRX	256	40	240-930	-8 to +13	-121	-110	18.5 mA	18			30		QFN20
Si4432	TRX	256	40	240-930	+1 to +20	-121	-110	18.5 mA		35			85	QFN20
Si4438	TRX	500	120	425 -525	-20 to +20	-121	-110	14 mA					75	QFN20
Si4460	TRX	1000	120	142-1050 Major Bands	-40 to +13	-124	-112	10/13 mA		18	25			QFN20
Si4461	TRX	1000	120	142-1050 Major Bands	-30 to +16	-124	-112	10/13 mA				31		QFN20
Si4463	TRX	1000	120	142-1050 Major Bands	-20 to +20	-124	-112	10/13 mA					85	QFN20
Si4464	TRX	1000	120	119-960 Banded	-20 to +20	-124	-112	10/13 mA					85	QFN20

## Wireless MCUs

PART NUMBER	FLASH MEM.	MHz	RAM (kB)	DIG. I/O	COMM.	FSK/GFSK (kbps)	OOK (kbps)	OUTPUT POWER (dBm)	2/4.8 KBPS SENS.	TX CURRENT (mA)		TIMERS (16-BIT)	PWM/PCA	INT. OSC	ADC	COMP.	OTHER	PACKAGE
										+11/+20	+13							
Si1020	128 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1024	128 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1030	128 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1034	128 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1021	64 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1025	64 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1031	64 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1035	64 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1000	64 kB	25	4352	22	I <sup>2</sup> C, SPI, UART	256	40	+1 to +20	-121/-110	35 mA/85 mA	—	4	6	±2%	10-bit, 18-ch., 300 ksp/s	2	CRC; RTC	QFN42
Si1002	64 kB	25	4352	22	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	10-bit, 18-ch., 300 ksp/s	2	CRC; RTC	QFN42
Si1004	64 kB	25	4352	19	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	10-bit, 15-ch., 300 ksp/s	2	CRC; dc-dc; RTC	QFN42
Si1022	32 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1026	32 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1032	32 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1036	32 kB	25	8448	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1001	32 kB	25	4352	22	I <sup>2</sup> C, SPI, UART	256	40	+1 to +20	-121/-110	35 mA/85 mA	—	4	6	±2%	10-bit, 18-ch., 300 ksp/s	2	CRC; RTC	QFN42
Si1003	32 kB	25	4352	22	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	10-bit, 18-ch., 300 ksp/s	2	CRC; RTC	QFN42
Si1005	32 kB	25	4352	19	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	10-bit, 15-ch., 300 ksp/s	2	CRC; dc-dc; RTC	QFN42
Si1023	16 kB	25	4352	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1027	16 kB	25	4352	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	128 LCD Segments	LGA85
Si1033	16 kB	25	4352	53	I <sup>2</sup> C, 2x SPI, UART	256	40	+1 to +20	-121/-110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1037	16 kB	25	4352	53	I <sup>2</sup> C, 2x SPI, UART	256	40	-8 to +13	-121/-110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksp/s	2	—	LGA85
Si1010	16 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	+1 to +20	-121/-110	35 mA/85 mA	—	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; RTC	QFN42
Si1012	16 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; RTC	QFN42
Si1014	16 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; dc-dc; RTC	QFN42
Si1011	8 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	+1 to +20	-121/-110	35 mA/85 mA	—	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; RTC	QFN42
Si1013	8 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; RTC	QFN42
Si1015	8 kB	25	768	15	I <sup>2</sup> C, SPI, UART	256	40	-8 to +13	-121/-110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksp/s	2	CRC; dc-dc; RTC	QFN42



## Hardware and Software Support

FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT [www.silabs.com/wireless](http://www.silabs.com/wireless)

### Sub-GHz EZRadio Development Support

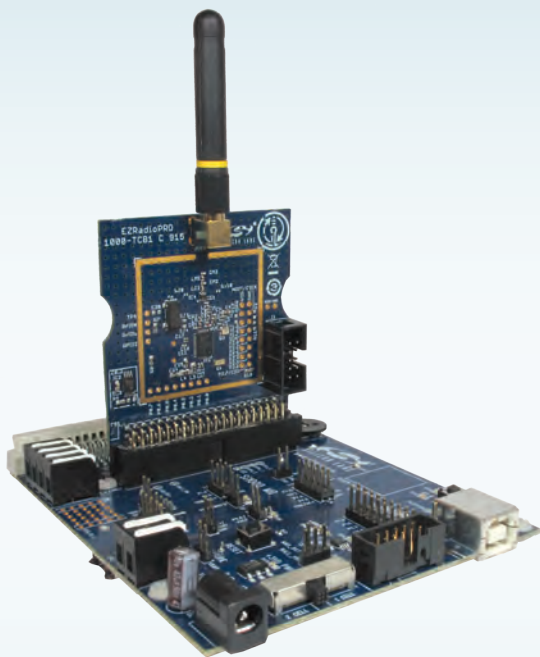
Silicon Labs offers complete tools to help designers throughout the entire project. The EZRadio®, EZRadioPRO® and wireless solutions offer hardware and software platforms to easily set up and configure, compile and debug a project. Full documentation and a broad range of third-party compilers and development tools are available. Software stacks provide networking support for multi-node metering networks. Software simulation tools can estimate power consumption and determine expected battery life.

Complete development/prototyping system includes the following:

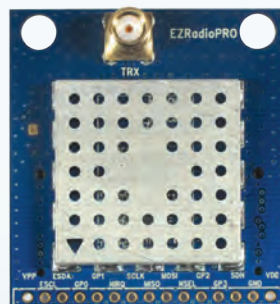
- Prototyping/demonstration board
- USB adapter for in-system programming and debugging
- Silicon Laboratories IDE
- MCU configuration wizard



Si4431/  
C8051F342  
EZRadioPRO®  
USB DONGLE



Si1000 TARGET BOARD  
WITH EZRadio® TEST CARD



Si4463 915 MHz  
RF PICO CARD



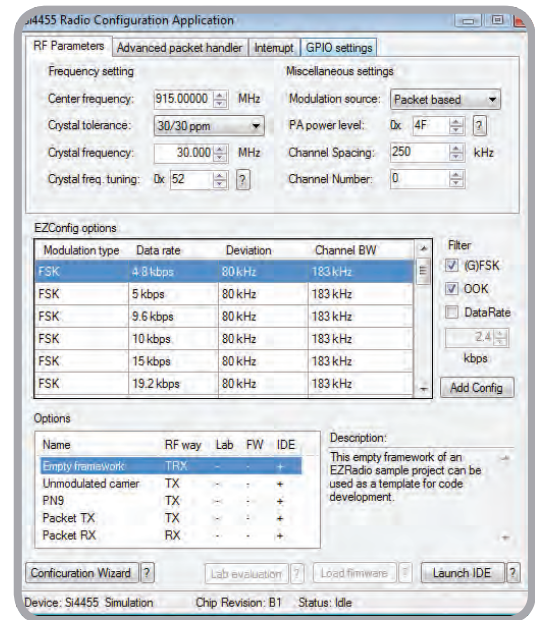
Si4355/Si4010 ONE-WAY  
SUB-GHz KEY FOB TO LED  
RECEIVER STICK

## Wireless Development Suite

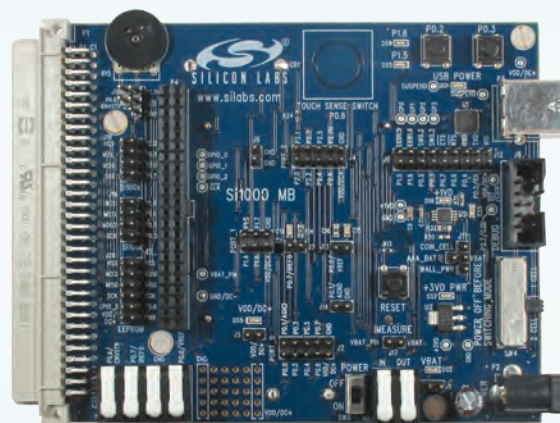
The Wireless Development Suite (WDS) provides developers a comprehensive toolset to quickly and easily create and deploy efficient, robust and low-cost wireless applications. WDS can be used for demonstrating part capabilities, testing performance, and prototyping application examples, with little or no RF design and measurement experience.

To easily set up the EZRadio products, Silicon Labs offers the EZConfig setup tools within our Wireless Development Suite software. The EZConfig tool provides recommended settings for the most common application configurations. These settings have been optimized by Silicon Labs and verified for performance. [www.silabs.com/WDS](http://www.silabs.com/WDS)

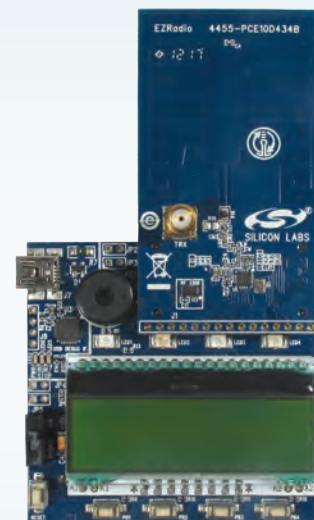
- Supports a family of TX, RX and TRX test cards
- Device config, save, and restore
- Custom scripting API
- Online device documentation
- Terminal window
- PC interface to evaluation boards



Si4010 EZRadio®  
KEY FOB TRANSMITTER



Si1000 WIRELESS MCU  
TARGET BOARD



EZRadio® Si4010/Si4355  
ONE-WAY AES  
DEVELOPMENT KIT

## Development Kits

FIND THE EVALUATION TOOLS AND REFERENCE DESIGNS TO HELP YOU GET STARTED: [www.silabs.com/wireless-devkits](http://www.silabs.com/wireless-devkits)

### Wireless MCU Development Kits

PART NUMBER	DESCRIPTION	PRICE
Si1000DK	Si1000 Wireless MCU Development Kit	
Si1010DK	Si1010 Wireless MCU Development Kit	
Si1020-915-A-SDK	Si1020 915 MHz Software Development Kit	
Si1020-915-A-DK	Si1020 915 MHz Wireless Development Kit	
Si1024-868-A-SDK	Si1024 868 MHz Software Development Kit	
Si1024-868-A-DK	Si1024 868 MHz Wireless Development Kit	

### Wireless MCU Development Kit Test Cards

PART NUMBER	TYPE	FREQUENCY	ANTENNA CONFIGURATION	PRICE
1000-TCB1 C 915	Si1000 TRX Testcard	915 MHz	Single Switch Antenna Rev c/B1; +20 dBm	
1000-TCB1 C 470	Si1000 TRX Testcard	470 MHz	Single Switch Antenna Rev c/B1; +20 dBm	
1002-TCB1 D 868	Si1002 TRX Testcard	868 MHz	Single Tied Antenna Rev c/B1; +13 dBm	
1002-TCB1 D 434	Si1002 TRX Testcard	470 MHz	Single Tied Antenna Rev c/B1; +13 dBm	
1004-TCB1 D 868	Si1004 TRX Testcard	868 MHz	Single Tied Antenna Rev d/B1; +13 dBm, dc-dc	
1004-TCB1 D 434	Si1004 TRX Testcard	434 MHz	Single Tied Antenna Rev d/B1; +13 dBm, dc-dc	
1010-TAB1 C 915	Si1010 TRX Testcard	915 MHz	Single Switch Antenna Rev c/B1; +20 dBm	
1010-TCB1 C 470	Si1010 TRX Testcard	470 MHz	Single Switch Antenna Rev c/B1; +20 dBm	
1012-TAB1 D 868	Si1012 TRX Testcard	868 MHz	Single Tied Antenna Rev d/B1; +13 dBm	
1012-TAB1 D 434	Si1012 TRX Testcard	434 MHz	Single Tied Antenna Rev d/B1; +13 dBm	
1014-TAB1 D 868	Si1014 TRX Testcard	868 MHz	Single Tied Antenna Rev d/B1; +13 dBm, dc-dc	
1014-TAB1 D 434	Si1014 TRX Testcard	434 MHz	Single Tied Antenna Rev d/B1; +13 dBm, dc-dc	

### Wireless MCU Development Kit Pico Cards

PART NUMBER	FREQUENCY	DESCRIPTION	PRICE
UPPH1020GM-A-915EK	915 MHz	Si1020-GM 915 +20 dBm T/R switch pico board	
UPPH1024GM-A-868EK	868 MHz	Si1024-GM 868 +13 dBm direct tie pico board	
UPPH1024GM-A-434EK	434 MHz	Si1024-GM 434 +13 dBm direct tie pico board	

### Ember ZigBee Development Kits

PART NUMBER	DESCRIPTION	PRICE
EM35x-DEV	EM351 and EM357 Development Kit with 30-day trial license for IAR Embedded Workbench for ARM	
EM35x-DEV-IAR	EM351 and EM357 Development Kit with a full standalone Cortex-M3 licence for IAR Embedded Workbench for ARM	
EM35x-NCP-ADD-ON-S	Network co-processor development with an existing EM35x Development kit	

## EZRadio Development Kits

PART NUMBER	DESCRIPTION	PRICE
4010-KFOBDEV-434	Si4010/Si4355 Key Fob Development Kit; 434 MHz Frequency	
4010-KFOBDEV-868	Si4010/Si4355 Key Fob Development Kit; 868 MHz Frequency	
4010-KFOBDEV-915	Si4010/Si4355 Key Fob Development Kit; 915 MHz Frequency	
4010-AESK1W-315	Si4010/Si4355 One-Way AES Development Kit; 315 MHz Frequency	
4010-AESK1W-434	Si4010/Si4355 One-Way AES Development Kit; 434 MHz Frequency	
4010-AESK1W-868	Si4010/Si4355 One-Way AES Development Kit; 868 MHz Frequency	
4010-AESK1W-915	Si4010/Si4355 One-Way AES Development Kit; 915 MHz Frequency	
4012-LCDK1W-434	Si4355 One-Way LCD Development Kit; 434 MHz Frequency	
4012-LCDK1W-915	Si4355 One-Way LCD Development Kit; 915 MHz Frequency	
EZR-LEDK1W-434	Si4010/Si4355 One-way Sub-GHz Key Fob to LED Receiver Stick; 434 MHz Frequency	
EZR-LEDK1W-868	Si4010/Si4355 One-way Sub-GHz Key Fob to LED Receiver Stick; 868 MHz Frequency	
EZR-LEDK1W-915	Si4010/Si4355 One-way Sub-GHz Key Fob to LED Receiver Stick; 915 MHz Frequency	
EZR-LEDK2W-434	Si4455 Two-way Sub-GHz Key Fob to LED Receiver Stick; 434 MHz Frequency	
EZR-LEDK2W-868	Si4455 Two-way Sub-GHz Key Fob to LED Receiver Stick; 868 MHz Frequency	
EZR-LEDK2W-915	Si4455 Two-way Sub-GHz Key Fob to LED Receiver Stick; 915 MHz Frequency	
EZR-LCDK2W-434	Si4455 Two-way LCD Development Kit; 434 MHz Frequency	
EZR-LCDK2W-868	Si4455 Two-Way LCD Development Kit; 868 MHz Frequency	
EZR-LCDK2W-915	Si4455 Two-Way LCD Development Kit; 915 MHz Frequency	
RF-to-USB-RD	Two board RF to USB Reference Design	

## EZRadioPRO Development Kits

PART NUMBER	DESCRIPTION	PRICE
4060-868-PDK	Si4060 One-way Wireless Development Kit; 868 MHz Frequency	
4063-915-PDK	Si4063 One-way Wireless Development Kit; 915 MHz Frequency	
4438-490-PDK	Si4438 Wireless Development Kit; 490 MHz Frequency	
4461-868-PDK	Si4461 Wireless Development Kit; 868 MHz Frequency	
4463-915-PDK	Si4463 Wireless Development Kit; 915 MHz Frequency	

## EZRadioPRO Development Kit Test Cards

PART NUMBER	TYPE	FREQUENCY	ANTENNA CONFIGURATION	PRICE
4060-PCE10B868-EK	Si4060 TX Testcard	868 MHz	+10 dBm, TX only	
4063-PCE20B915-EK	Si4063 TX Testcard	915 MHz	+20 dBm, TX only	
4362-PRXB868-EK	Si4362 RX Testcard	868 MHz	-126 dBm, RX only	
4362-PRXB915-EK	Si4362 RX Testcard	915 MHz	-126 dBm, RX only	
4438-PCE20D490-EK	Si4438 TRX Testcard	490 MHz	+20 dBm, Single antenna implemented without RF switch for China applications	
4461-PCE14D868-EK	Si4461 TRX Testcard	868 MHz	+14 dBm, Single antenna implemented without RF switch	
4463-PCE20C915-EK	Si4463 TRX Testcard	915 MHz	+20 dBm, Single antenna implemented with RF switch	
4063-PSQ20B169-EK	Si4063 TX Testcard	169 MHz	+ 20 dBm, TX only	
4060-PCE10B434-EK	Si4063 TX Testcard	434 MHz	+10 dBm, TX only	
4362-PRXB169-EK	Si4362 RX Testcard	169 MHz	-126 dBm, RX only	
4362-PRXB434-EK	Si4362 RX Testcard	434 MHz	-126 dBm, RX only	
4463-PSQ20D169-EK	Si4463 TRX Testcard	169 MHz	+20 dBm, Single antenna implemented without RF switch	

4460-PCE10D434-EK	Si4460 TRX Testcard	434 MHz	+10 dBm, Single antenna implemented without RF switch
4463-PCE20B915-EK	Si4463 TRX Testcard	915 MHz	+20 dBm, Separate TX and RX designed for lab testing (not recommended for range testing)
4463-PCE20C460-EK	Si4463 TRX Testcard	460 MHz	+20 dBm, Single antenna implemented with RF switch
4463PCE20C868SE-EK	Si4463 TRX Testcard	868 MHz	+20 dBm, Single antenna implemented with RF switch, SAW filter, TCXO, for ETSI Cat 1 applications
4463PSQ20C169SE-EK	Si4463 TRX Testcard	169 MHz	+20 dBm, Single antenna implemented with RF switch, SAW filter, TCXO, for ETSI Cat 1 applications
4463-PSQ27F169-EK	Si4463 TRX Testcard	169 MHz	+27 dBm, Single antenna implemented with RF switch and low cost external amplifier
4463-PCE27F868-EK	Si4463 TRX Testcard	868 MHz	+27 dBm, Single antenna implemented with RF switch and low cost external amplifier
4463-PCE30E915R-EK	Si4463 TRX Testcard	915 MHz	+30 dBm high power design with RFMD FEM
4460-PCE30E915S-EK	Si4460 TRX Testcard	915 MHz	+30 dBm high power design with Skyworks FEM
4463-PCE20A915-EK	Si4463 TRX Testcard	915 MHz	+20 dBm used to evaluate the embedded Antenna Diversity algorithm
4432-T-B1 A 915	Si4432 TRX Testcard	915 MHz	Two antennas mounted at 90°; used to evaluate the embedded antenna diversity algorithm
4432-T-B1 B 915	Si4432 TRX Testcard	915 MHz	Separate TX and RX designed for lab testing (not recommended for range testing)
4432-T-B1 C 915	Si4432 TRX Testcard	915 MHz	Single tied antenna implemented with RF switch
4432-T-B1 C 868	Si4432 TRX Testcard	868 MHz	Single tied antenna implemented with RF switch
4432-T-B1 B 470	Si4432 TRX Testcard	470 MHz	Separate TX and RX designed for lab testing (not recommended for range testing)
4432-T-B1 C 470	Si4432 TRX Testcard	470 MHz	Single tied antenna implemented with RF switch
4432-T-B1 D 470	Si4432 TRX Testcard	470 MHz	Single tied antenna implemented with RF switch
4431-T-B1 B 868	Si4431 TRX Testcard	868 MHz	Separate TX and RX designed for lab testing (not recommended for range testing)
4431-T-B1 D 868	Si4431 TRX Testcard	868 MHz	Single tied antenna implemented without RF switch
4431-T-B1 B 434	Si4431 TRX Testcard	434 MHz	Separate TX and RX designed for lab testing (not recommended for range testing)
4431-T-B1 D 434	Si4431 TRX Testcard	434 MHz	Single tied antenna implemented without RF switch
4430-T-B1 B 950	Si4430 TRX Testcard	950 MHz	Separate TX and RX designed for lab testing (not recommended for range testing)
4430-T-B1 D 950	Si4430 TRX Testcard	950 MHz	Single Antenna implemented without RF switch
4330-T-B1 B 434	Si4430 RX Testcard	434 MHz	Single tied antenna
4330-T-B1 B 470	Si4430 RX Testcard	470 MHz	Single tied antenna
4330-T-B1 B 868	Si4430 RX Testcard	868 MHz	Single tied antenna
4330-T-B1 B 915	Si4430 RX Testcard	915 MHz	Single tied antenna
4330-T-B1 B 950	Si4430 RX Testcard	950 MHz	Single tied antenna
4032-T-B1 B 915	Si4430 TX Testcard	915 MHz	Single tied antenna
4032-T-B1 B 470	Si4430 TX Testcard	470 MHz	Single tied antenna
4031-T-B1 B 868	Si4430 TX Testcard	868 MHz	Single tied antenna
4031-T-B1 B 434	Si4430 TX Testcard	434 MHz	Single tied antenna



# Hardware and Software Support

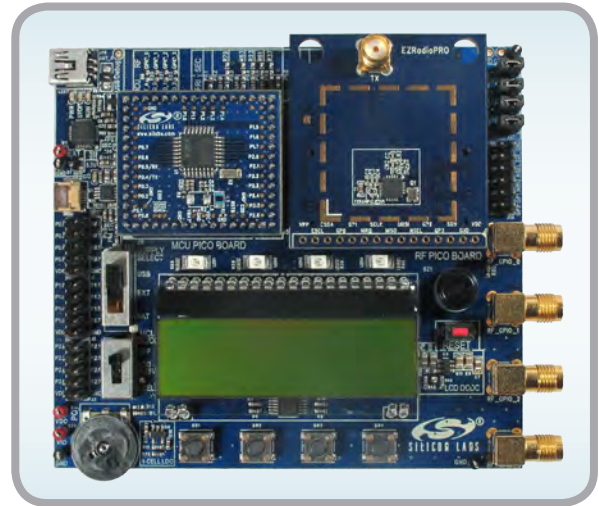
FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT [www.silabs.com/wireless-devkits](http://www.silabs.com/wireless-devkits)

## Wireless Development Tools

Silicon Labs offers an easy to use development platform featuring a small motherboard with modular RF and MCU Pico boards and an integrated LCD with necessary connectors for rapid prototyping and development. The MSC-F930-PDK provides a standalone demonstration platform and software development platform for wireless devices together with the Wireless Development Suite (WDS).

The MSC-F930-PDK supports all of the following:

- MCU code and firmware development (IDE, configuration wizard, example codes, etc.)
- RF design and optimization (Wireless Development Suite support, automatic board detection and firmware download, sample RF code, run-time PHY interface, etc.)



## ZigBee Development Tools

The EM35x development environment dramatically shortens design cycles by joining sophisticated network development and debugging tools. It begins with the silicon-based packet trace port, a collection of minimally-intrusive hardware debugging features on the EM35x system-on-chip (SoC) and network co-processor (NCP). Debug adapters bridge the packet trace port to the developer's PCs via an Ethernet connection, where the Desktop Network Analyzer enables rapid development and debugging. The Ember AppBuilder is an easy-to-use graphical tool providing the fastest path to certifiable products using ZigBee standard public application profiles. Bundles of these tools and development boards are available for each of the Ember ZigBee chipsets.

[www.silabs.com/zigbee-devkits](http://www.silabs.com/zigbee-devkits)

## EM35x Series Development Kit

(EM35X-DEV or EM35X-DEV-IAR)

Customers starting new ZigBee SoC projects should choose the EM35x Development Kit as their starting point.

There are two variants:

- EM35X-DEV with a 30-day trial license of IAR Embedded Workbench for ARM
- EM35X-DEV-IAR includes a full standalone Cortex-M3 licence for IAR Embedded Workbench for ARM

An IAR EWARM license (P/N: EM35X-DEV-UPG-IAR) for use with the EM35x development kit may be purchased separately.



# Silicon Labs Online Utilities

FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT [www.silabs.com/online-utilities](http://www.silabs.com/online-utilities)

## Wireless Chip Selector

The Silicon Labs' wireless product selector online utility helps identify the right wireless product for the application. Simply make the selections that best describe the design, and the appropriate product with all supporting documentation, development software and hardware will be displayed. Enter the design specifications below and in less than a minute we'll match you to the right wireless product for the project. You will receive product match(es), data sheet(s), application notes, development hardware and software.

[www.silabs.com/wireless-chip-selector](http://www.silabs.com/wireless-chip-selector)

- 1 Standard/certification
- 2 Frequency spectrum
- 3 One-way or two-way link

In less than a minute, we'll match you to the right wireless product for your project!

---

Answer Summary:

1) Please select the appropriate standard:

- FCC (e.g. US market)
- ARIB (e.g. Japan market)
- ETSI (e.g. Europe market)
- China
- Brazil

[Next >](#)

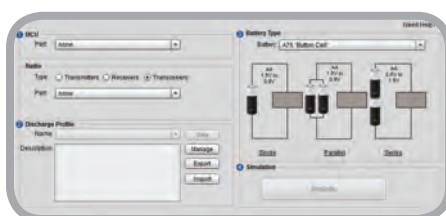


Competitor Part Number	Competitor Name	Silicon Labs Part Number	Description	Availability	Buy Online
1000000000	Texas Instruments	SI2401	2.4GHz 250Kbps 802.15.4 Transceiver	Available	<a href="#">Buy Online</a>
1000000000	Texas Instruments	SI2402	2.4GHz 250Kbps 802.15.4 Transceiver	Available	<a href="#">Buy Online</a>
1000000000	Texas Instruments	SI2403	2.4GHz 250Kbps 802.15.4 Transceiver	Available	<a href="#">Buy Online</a>

## Cross-Reference Utility

Silicon Labs' cross reference utility allows you to type in a competitor's part number (full or partial) and if we have a cross-match, our part number pops up. Results are automatically filtered as you type and can be exported to excel so you can e-mail or save results.

[www.silabs.com/cross-reference](http://www.silabs.com/cross-reference)



1 BCI Part:

2 Battery Type:

3 Discharge Profile:

4 Simulation:

## Battery Life Estimator

The Battery Life Estimator is an easy-to-use web-based calculator that gives designers a quick and easy way to understand the discharge characteristics of different system configurations to help optimize low-power applications. You can also download the software to your desktop.

[www.silabs.com/batterycalculator](http://www.silabs.com/batterycalculator)

Silicon Labs' products are designed and manufactured to ISO 9001, ISO 14001 and ISO/TS 16949 standards.



**ISO 9001**

Quality Management System  
Design and Manufacture of Integrated Circuits  
Certificate Registration No: 951 08 4762



**ISO 14001**

Environmental Management System  
Design and Manufacture of Integrated Circuits  
Certificate Registration No: 951 09 4998



**ISO/TS 16949**

Quality Management System for  
Manufacture of Integrated Circuits and Related  
Products for Automotive Applications  
Certificate Registration No.: 12 111 33114 TMS  
IATF Certificate No.: 0080212



**Mixed Sources**

Product group from well-managed  
forests, controlled sources and  
recycled wood or fiber

[www.fsc.org](http://www.fsc.org) Cert no. SW-COC-001730  
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