



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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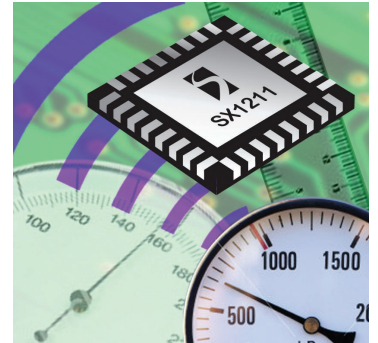
Product Brief



SEMTECH WIRELESS & SENSING PRODUCTS

SX1211

Ultra-low Power Multi-Channel UHF-band Transceiver



WORLD'S LOWEST RECEIVE CURRENT TRANSCEIVER (<3mA)

3x lower RX current than competitive devices

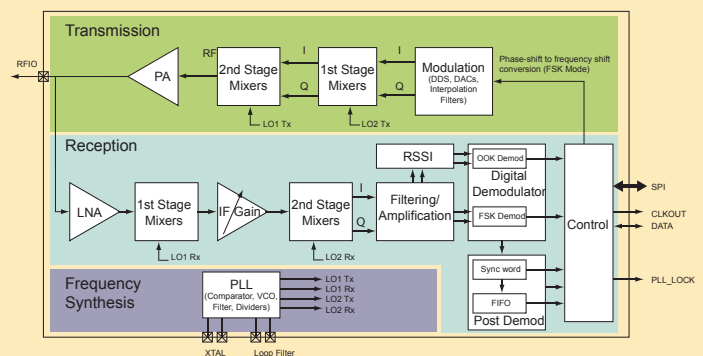
Key Features:

- 3 mA current consumption in receive mode
- Rx sensitivity -107 dBm @ 25 kbit/s (FSK), -110 dBm @ 2 kbit/s (OOK)
- Programmable RF output power: up to +12.5 dBm in 8 steps
- FSK and OOK modulation
- Data rates programmable from 1.56 to 200 kbit/s (FSK)
- 64-byte FIFO for transmit/receive data buffering and transfer via SPI bus
- RSSI (Received Signal Strength Indicator) range from noise floor to 0 dBm
- Packet Handling, CRC generation and Data Whitening
- Incoming sync word recognition
- Built-in bit-synchronizer for incoming data and clock synchronization and recovery
- 868, 915 and 960 MHz frequency bands
- 5 x 5 mm TQFN32 RoHS-compliant
- Low external component count
- FCC DTS compliant (US ISM-band operation without frequency-hopping)
- Satisfies ETSI EN 300-220-1 and FCC part 15.247 & 15.249 regulations

Applications:

- Security and Alarm Systems
- Wireless Sensor Networks
- Sub-Metering
- Personal Area Network
- Sports & Health Equipment
- Home and Building Automation
- KONNEX™ Systems
- Industrial Monitoring and Control

Block Diagram:



WWW.SEMTECH.COM

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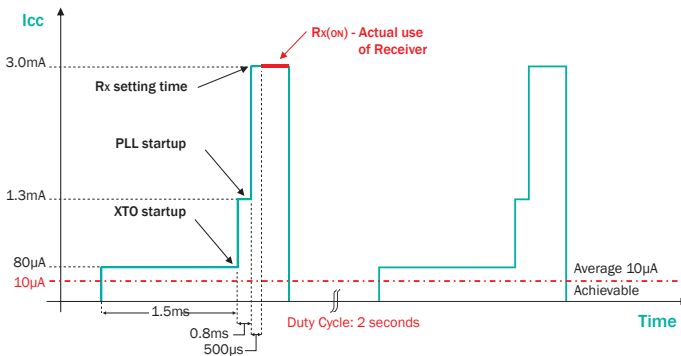
Ultra-low Power Multi-Channel UHF-band Transceiver

Characteristics

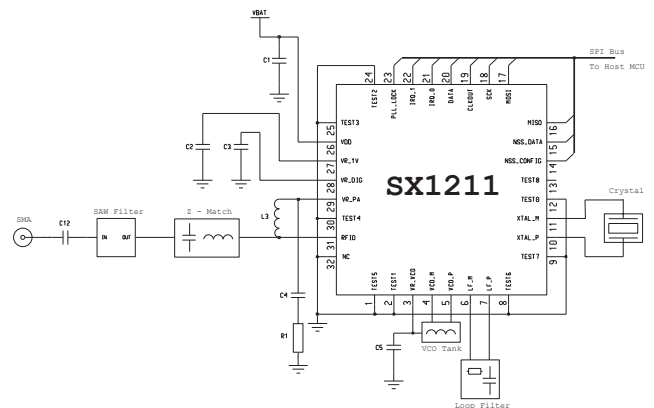
Parameter	Min	Typ	Max	Unit	Condition
Operating Conditions					
Operating temperature range	-40		85	°C	
Operating supply voltage	2.1		3.6	V	
Current Consumption					
Current consumption Rx		3		mA	
Current consumption Tx		16.0		mA	+1 dBm
		25.0		mA	+10 dBm
Current consumption, sleep mode		0.2	2	µA	
RF Characteristics					
Frequency range	863		870	MHz	
	902		928	MHz	
	950		960	MHz	
Data rate (programmable)	1.56		200	kbit/s	FSK
	1.56		32	kbit/s	OOK
T _X output power (programmable)	-8.5		12.5	dBm	
R _X sensitivity		-107		dBm	
		-110		dBm	OOK Modulation: 2 kb/s NRZ, Carrier Frequency=869 MHz

Conditions: Temp=25°C, VDD=3.3V, crystal frequency=12.8 MHz, carrier frequency= 915 MHz, modulation FSK, data rate=25 kb/s, Δf=50 kHz, BW(ssb)=100 kHz, BER=0.1%, unless otherwise specified.

STARTUP TIME CHART



TYPICAL APPLICATION CIRCUIT



Visit our website to locate the most current product specifications, datasheets and contact information for your local Semtech Field Applications Engineer.

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