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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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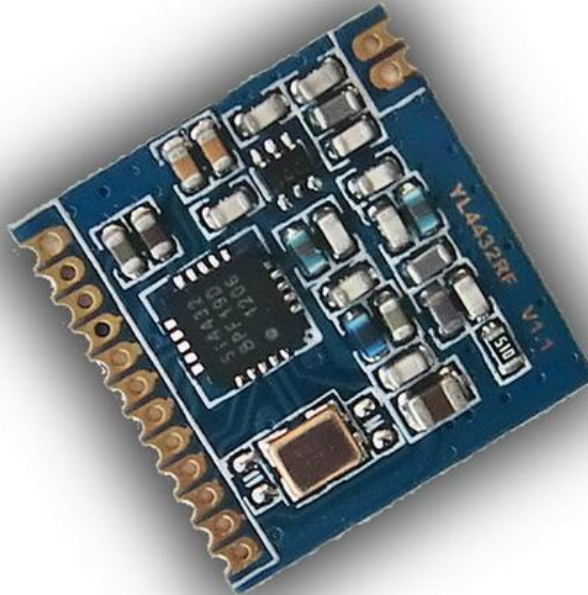
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SEM-YL-4432G 100mW Transceiver Module User Manual V1.0



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Description

Semitron's SEM-YL-4432G are highly integrated wireless ISM transceiver module. Very low receive sensitivity (-121dBm/1200bps), coupled with industry leading +20dBm output power ensures extended range and improved link performance. Built-in antenna diversity and support for frequency hopping can be used to further extend range and enhance performance.

Features

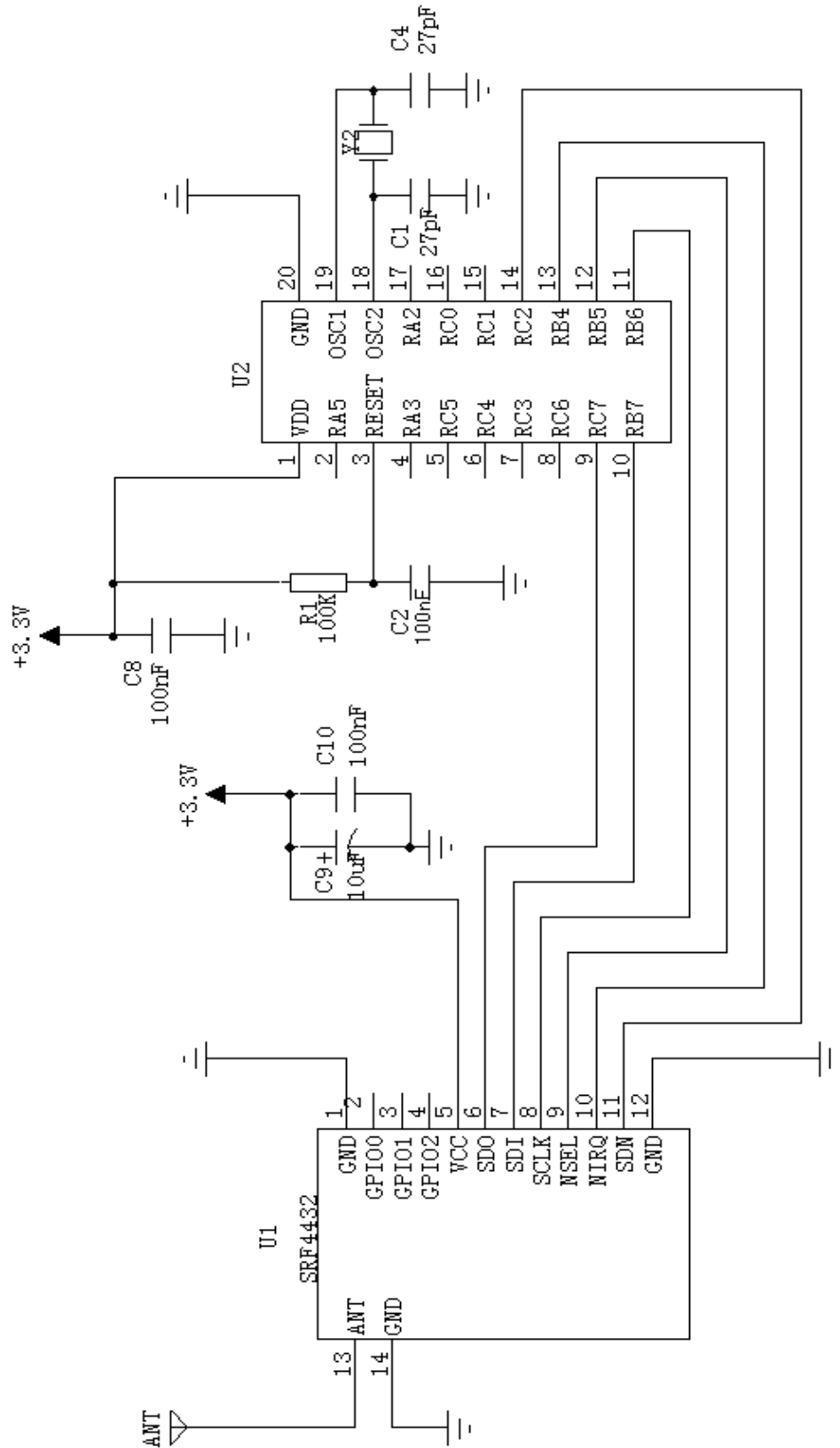
- Frequency Range: 433 MHz
(other frequencies need to be customized)
- Sensitivity = -121 dBm at 1200bps
- Max output power:20dBm
- 85mA@+20dBm transmit
- Data Rate = 0.123 to 256 kbps
- FSK,GFSK and OOK modulation
- Power Supply = 1.8 to 3.6 V
- Ultra low power shutdown mode
- Digital RSSI
- Wake-up timer
- Auto-frequency calibration (AFC)
- Configurable packet handler
- Antenna diversity and TR switch control
- Preamble detector
- TX and RX 64 byte FIFOs
- Low battery detector
- Temperature sensor and 8-bit ADC
- -40 to +85 °C temperature range
- Integrated voltage regulators
- Frequency hopping capability
- Power-on-reset (POR)
- On-chip crystal tuning

Applications

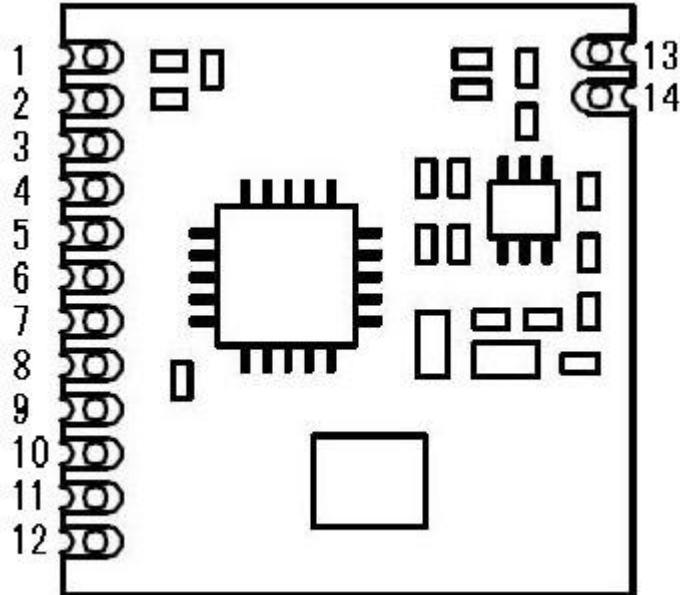
- Remote control
- Telemetry
- Home security & alarm
- Home automation
- Remote keyless entry
- Industrial control
- Toy control
- Personal data logging
- Remote meter reading
- Sensor networks
- Tire pressure monitoring
- Health monitors
- Wireless PC peripherals
- Tag readers

Characteristics

Parameter	Min	Tye	Max	Units	Conditions
Operating Condition					
Supply Voltage Range	1.8	3.3	3.6	V	—
Operating Temperature	-20	—	85	°C	—
DC Characteristics					
Rx Mode Current	—	18.5	—	mA	—
Tx Mode Current	—	85	—	mA	@20dBm
Sleep Mode Current	—	<1	—	uA	—
RF Parameter					
Frequency range	428	433	438	MHZ	@433MHZ
Modulation rate	0.123	—	256	Kbps	FSK
Output power range	0	—	20	dBm	—
Sensitivity	—	-121	—	dBm	@data=1.2kbps,Fdev=30kHz

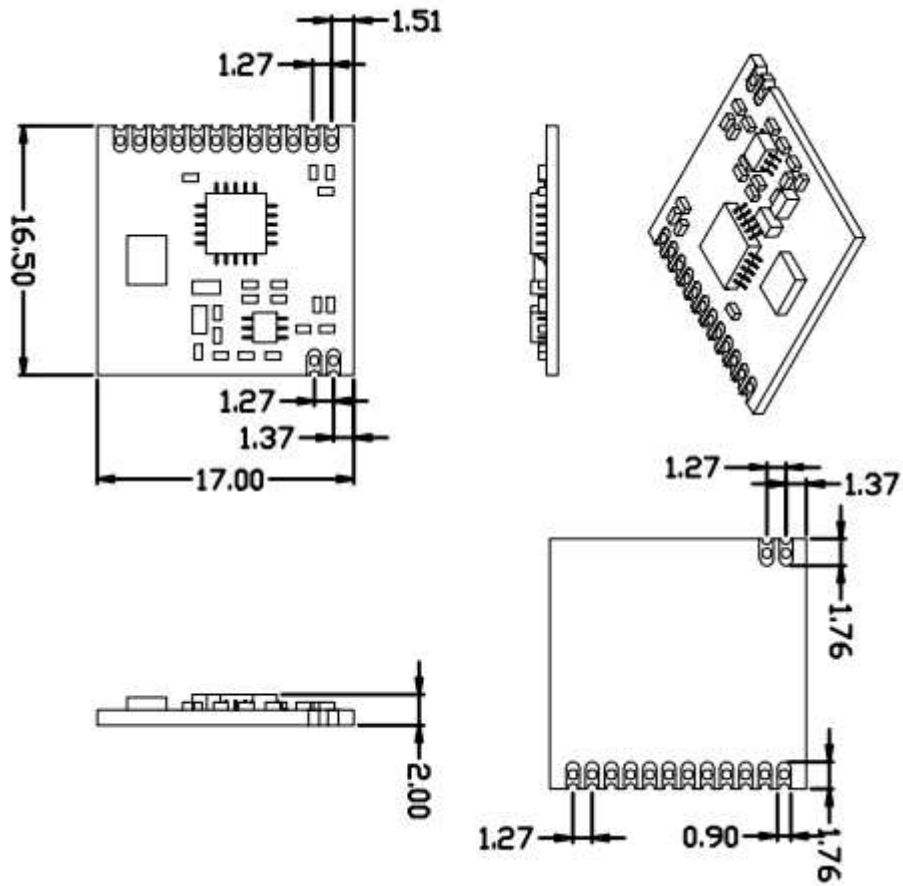
Typical Application Circuit


Pin Descriptions



Pin	Pin Name	Descriptions
1	GND	Ground.
2	GPIO0	Connected module's Tx pin internal, Tx status is high, Rx is low.
3	GPIO1	Connected module's Rx pin internal, Rx status is high, Tx is low.
4	GPIO2	Connect to chip's GPIO2 pin.
5	VCC	Connect positive power supply at 3.3V.
6	SDO	0~VDD V digital output that provides a serial readback function of the internal control registers.
7	SDI	Serial data input. 0~VDD V digital input. This pin provides the serial data stream for the 4-line serial data bus.
8	SCLK	Serial clock input. 0~VDD V digital input. This pin provides the serial data clock function for the 4-line serial data bus.
9	nSEL	Serial interface select input. 0~VDD V digital input. This pin provides the Select/Enable function for the 4-line serial data bus. The signal is also used to signify burst read/write mode.
10	nIRQ	Interrupt output pin.
11	SDN	Shut down input pin. 0~VDD V digital input. SDN should be = 0 in all modes except Shutdown mode. When SDN=1 the chip will be completely shutdown and the contents of the registers will be lost.
12	GND	Ground.
13	ANT	Connected 50OHM coaxial antenna.
14	GND	Ground.

Mechanical Dimension



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