

## General description

The CC1110-433 RF module is a low cost and high performance SOC RF transceiver designed for very low power wireless applications. Their high level of integration and flexible firmware can help to replace wires in many transmission systems. These pre-certified RF modules that can be easily integrated into your application, thereby reducing development time and cost.

## Features

- Low cost Sub1GHz SOC RF transceiver
- Front-end with PA/LNA for extended RF range
- RF outpour power programmable -30 to 10 dBm
- Programmable data rate up to 500 kbps
- Digital RSSI / LQI support
- Excellent receiver selectivity -110dBm@2.4Kbps
- 0.6  $\mu$ A consumption in lowest power mode
- Support UART/SPI/I2S interface
- 21 general I/O pins
- Wide supply voltage range (2.0V – 3.6V)
- Low size 16\*21.5mm SMD component



## Applications

- Auto Metering Reader
- RF Remote controller
- Low power telemetry
- Active RFID Tag
- Home and building automation
- Weather stations
- Wireless alarm and security systems
- Industrial monitoring and control
- Wireless sensor networks

### Electrical Characteristics

ITEM	TEST REQUIREMENT	REMARKS
Voltage supply	2.0—3.6V	DC
Center frequency	433MHz	Programmable
Frequency error	±10KHz	
Modulation	FSK/GFSK	
Output power	10dBm	Programmable
Receiving sensitivity	-110dBm	@2.4Kbps data rate
Receiving current	<20mA	
Transmitting current	<38mA	Po=10dBm
Sleep consumption	<1uA	Sleeping Mode
Data rate	1.2-500kbps	Programmable
Transmit distance	300M @2.4K data rate	At open area
Antenna	50ohm	
Store temperature	-40—125°C	
Operation temperature	-20—85°C	Base on crystal performance
Package size	16*21.5mm	

### RECOMMENDED OPERATING CONDITIONS

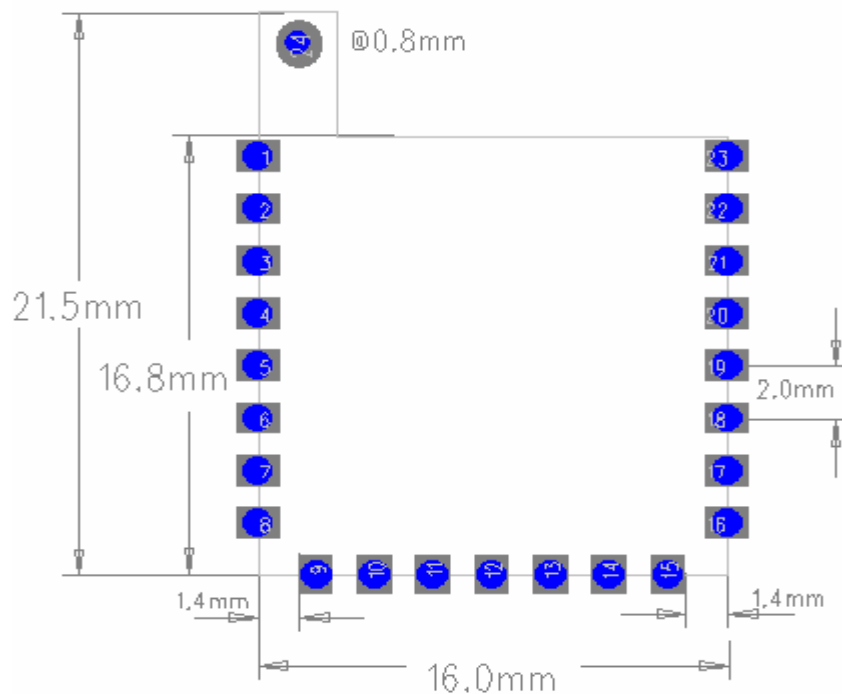
	MIN	MAX	UNIT
Operating ambient temperature range, TA	-40	85	°C
Operating supply voltage	2	3.6	V

### CAUTION:

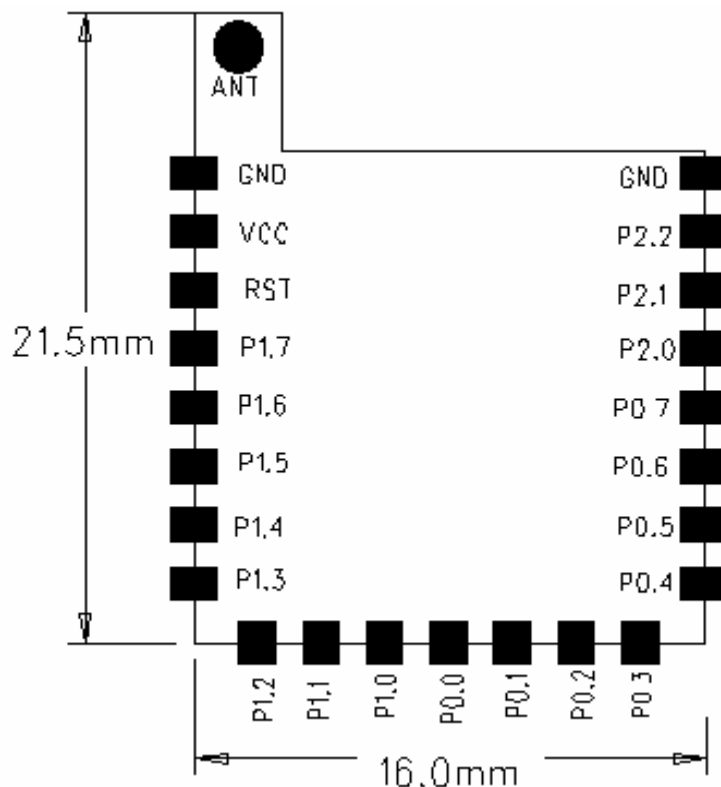


ESD sensitive device. Precautions should be used when handling the device in order to prevent permanent damage.

### Dimensions



### Pin Assignment



# RadioLand

## Smart Wireless Solutions

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### **NOTE:**

Additional information on the Texas Instruments CC1110 device can be found in the company's latest datasheet release at [http:// www.ti.com/product/CC1110](http://www.ti.com/product/CC1110)