

# AptBee 2.4GHz Radio Frequency Module



Combine this module with various sensing devices can be used as building blocks in the wireless sensor networks or the Internet of Things for a variety of different applications.

## Specification

Model	APTZBM_1301
Frequency	2.400 ~ 2.485 GHz
Number of Channels	16
Data Rate	250Kbps
Maximum Output Power	4.5dBm
Sensitivity	-97dBm
In-system Flash Memory	256Kbytes
RAM	8Kbytes
Power Supply	2 ~ 3.6VDC
Maximum Current Consumption	34mA
Static Current Consumption	0.4uA
Operating Temperature	-30 ~ 85°C
Antenna Types	Chip Antenna or U.FL connector
Input/Output ports	8-channel 12-bit ADC
Peripheral Interfaces	UART, SPI and I <sup>2</sup> C
Communication Protocol	IEEE 802.15.4 PHY, ZigBee PRO 2007
Firmware Versions	Coordinator, Router, End Device
Regulatory compliance	FCC, NCC(Taiwan)
Dimensions (mm)	27(L) 23(W) 3.5(H)

## Features

- 2.4GHz IEEE 802.15.4 Compliant RF Transceiver
- ZigBee PRO 2007 Compliant
- 256KB Flash , 8KB RAM
- Low power consumption
- UART, SPI and I<sup>2</sup>C interfaces
- Supports two types of antenna
- Conforms with FCC, NCC(Taiwan) standard

## Applications

- Home/building automation
- Industrial control and monitoring
- Indoor positioning
- Wireless Sensor Networks
- Internet of Things

## Description

The APTZBM\_1311 uses a low power consumption system-on-chip solution which integrates a micro-controller, a 2.4GHz RF Transceiver, 8KB RAM and 256KB Flash memory in on component. This module features ADC for analog input, three different peripheral interfaces and two types of antenna are available. There are three versions of firmware make this device available to form a mesh network.

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