



Summary

EasyBee is an IEEE 802.15.4 compliant RF transceiver. It enables designers to easily add ZigBee / IEEE 802.15.4 wireless capability to their products without the need for RF or antenna design expertise.

The module contains all RF circuitry, including integral antenna and controller in a simple-to-use, plug-in or surface mount module. A 4-wire SPI port interfaces to a baseband microcontroller.

The PHY (Physical) layer includes an impedance matched balun and integral antenna. The MAC (Media Access Control) layer includes CRC-16 generation, clear channel assessment, signal energy detection, security, encryption and authentication.

EasyBee is a fully capable device and a ZigBee networking layer is not required for point-to-point communication. If ZigBee is required, compatible ZigBee stacks include Microchip Technology's free ZigBee stack, and Figure-8's ZigBee stack.

This module is an application-ready solution for fast-to-market ZigBee and IEEE 802.15.4 communications, providing the development engineer unlimited choice of host controller and stack firmware provider.

Features

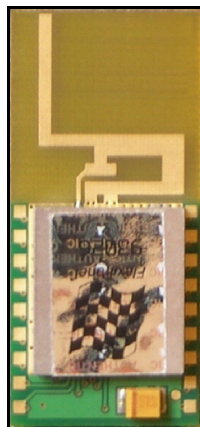
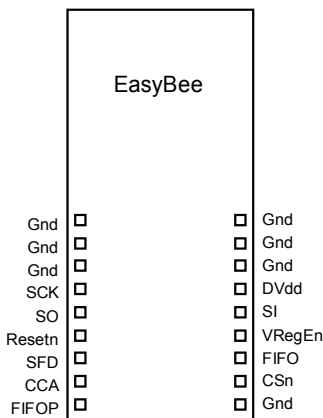
- 2.4GHz IEEE 802.15.4 / ZigBee RF module
- Free space range approx 120m
- Raw data rate 250kbps
- FCC / CE compliant
- Integral antenna
- Based on ChipCon CC2420 RF controller:
 - 4-wire SPI interface
 - separate 128-byte Rx & Tx FIFO buffers
- For ZigBee use controller of developer's choice, e.g. PIC running Microchip stack or ATMEL running Figure-8 stack
- Output power 1mW / 0dBm
- Consumes just 20mA (Rx), 18mA (Tx)
- 2.1V – 3.6V supply
- Surface mount or with PCB headers
- Wide temperature range -40°C to +85°C
- Just 26mm x 20mm

Applications

- IEEE 802.15.4 & ZigBee networks
- Cable replacement
- Home / building automation
- Industrial control & networking
- Wireless sensor networks

Ordering Information

Table 1. Ordering information	
Part No	Description
EASYBEE-SO	EasyBee 18-contact surface mount module
EASYBEE-DIL	EasyBee 18-pin 0.1" Dual-in-Line module
EVAL EASYBEE	EasyBee daughter card for Microchip Technology's PICDEM-Z ZigBee development kit
Contact us for information on all-weather enclosures	



Manufactured to ISO9001:2000

