

ZigBee™ “ZBPRO MOD” Radio Module by Talon

Low Cost ZigBee™ Wireless Module with Power Amplifier for Extended Range

ZigBee Pro – 802.15.4 RF Module

The ZBPRO MOD is an ultra-low power IEEE802.15.4 compliant, FCC certified 2.4GHz RF Module with an 100mW PA/LNA for extended range operations. The micro form factor module includes a dual antenna design to support receiver diversity systems. The ZBPRO MOD is based on the Freescale MC13226 third-generation ZigBee™ platform which incorporates a complete low power 2.4GHz radio frequency transceiver, 32-bit ARM7 core based MCU, hardware acceleration for both the IEEE 802.15.4 MAC and AES security, and a full set of Microcontroller Unit (MCU) peripherals.

The module comes preloaded with the Simple Media Access Controller (SMAC) Connectivity Test for validating the RF characteristics of the module. Full debug and programming capabilities are included for development of custom applications. Module programming can be done through the JTAG or the embedded serial bootstrap in the MC13226.

Low cost wireless development platform

ZBPRO MOD is an easily integrated RF Module that greatly reduces the risk of wireless application development with a proven ZigBee SE 1.X stack. The ZBPRO MOD platform was designed to provide easy installation, simple operation and, above all, low manufacturing cost. These factors, plus low total NRE costs, will help you justify the integration of the ZBPRO MOD module in your next product.

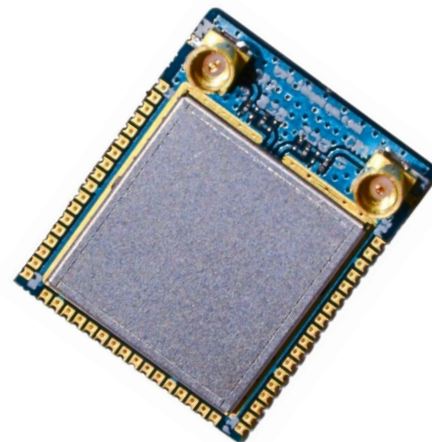
The module brings out all the functional pins of the MC13226 MCU for maximum usability and flexibility, including:

- 2 UART's
- 7 ADC Inputs
- SPI bus
- I2C bus
- I2S bus
- Timers
- JTAG
- 8 KBI's

Applications

The ZBPRO MOD micro form factor offers a low risk wireless option for a wide range of applications including:

- Smart Energy
- M2M
- Automatic Meter Reading
- Industrial Control
- Residential Automation
- HVAC Control
- Lighting Control
- Asset Tracking



ZBPRO MOD - Features

Radio

- 2.4GHz ISM band at 250 kbits/s
- IEEE 802.15.4 Compliant - 16 channels
- +20dBm (100mW) Nominal Transmit Power
- Dual Antenna for Receiver Diversity
- MMCX, on or off-module RF connection
- Two antenna choices

MCU

- 24MHz 32 bit ARM7 core
- 128 Kbyte FLASH, 96 Kbyte SRAM, 80 Kbyte ROM
- Serial UART interface
- Low Power Modes (0.85uA hibernate)
- Freescale BeeStack™ Pro, SynkroRF or SMAC
- I2S and SPI Serial Interface

Other Features

- Micro 25mm x 20mm x 1.7mm form factor
- -40°C to +85°C Operation
- 3.0v to 3.6v Operation
- RoHS Compliant
- 100mW PA for extended range performance
- AES 128 Encryption
- FCC Certified

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