

ZigBee "Oasis" Cortex-M4 Radio Module by Talon

Thread / ZigBee SE2.0 Wireless Module with Power Amplifier for Extended Range

Thread / ZigBee SE2.0 – 802.15.4 RF Module

The Oasis RF module is an ultra-low power IEEE 802.15.4 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 Oasis is based on the Freescale MKW22D512V fourth-generation ZigBee Pro/IP platform which incorporates a low power 2.4GHz IEEE 802.15.4 compliant radio frequency transceiver combined with a powerful Kinetis mixed signal ARM® Cortex™ M4 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 MKW22D512V.

Low cost wireless development platform

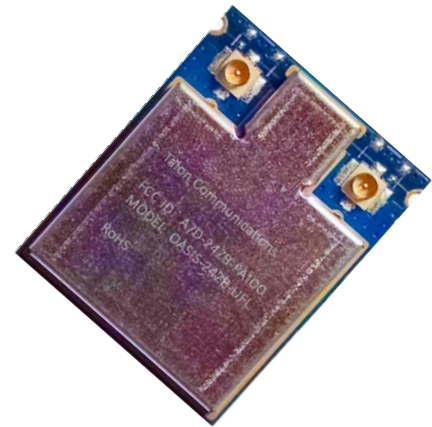
Oasis RF Module is an easily integrated RF Module that greatly reduces the risk of wireless application development with a proven ZigBee SE 2.X/Pro/IP stack. The Oasis platform was designed to provide easy installation, simple operation and, above all, low manufacturing cost. These factors plus low total NRE costs will help you justify the integration of the Oasis module in your next product. The module brings out all the functional pins of the MKW22D512V 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 Oasis 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



Oasis - 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
- 2.36-2.4GHz Medical Band (MBAN)
- MMCX, u.fl or off-module RF connection
- Two certified antenna choices

MCU

- 32 bit 50MHz ARM® Cortex™ M4
- 512 Kbyte FLASH, 64 Kbyte SRAM
- 16 bit ADC
- Serial UART, I2C, SPI and USB Interfaces
- Low Power Modes (0.85uA hibernate)
- PWM, Motor Control Timers
- 128 bit Unique ID
- Freescale BeeStack™ Pro, SynkroRF or SMAC

Other Features

- Micro 25mm x 20mm x 2.8mm form factor
- -40°C to +105°C Operation
- 2.7v to 3.6v Operation
- RoHS Compliant
- AES 128 Encryption
- FCC Certified

For Oasis RF Module information please contact:

Scott McDermaid

Email: scott.mcdermaid@taloncom.com

Direct: (619) 583-1846

Oasis Radio Module Development Platforms

Arduino - Freescale Freedom or Tower or TWRPI - Sierra IoT Platform

Thread / ZigBee SE2.0 – 802.15.4 RF Development Platforms

The Oasis RF module is a low power IEEE 802.15.4 compliant, FCC Certified 2.4GHz RF Module with a 100mW PA/LNA for extended range operations. The micro form factor module includes a dual antenna design to support transmit or receive diversity systems for difficult indoor environments.

Choice of Wireless Development Platform

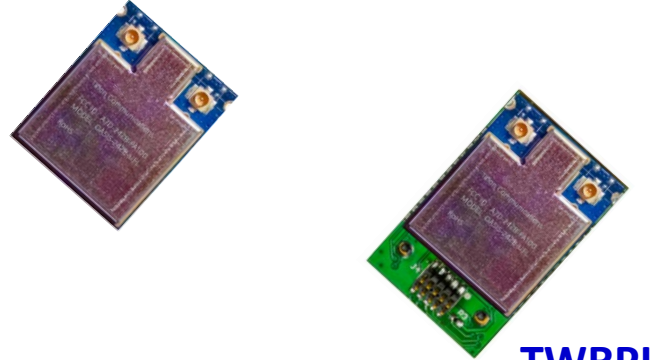
Talon offers 5 different options to allow quick development and progress on your project. Which will you choose ?

Applications

The Oasis micro form factor RF Module 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

Oasis RF Module

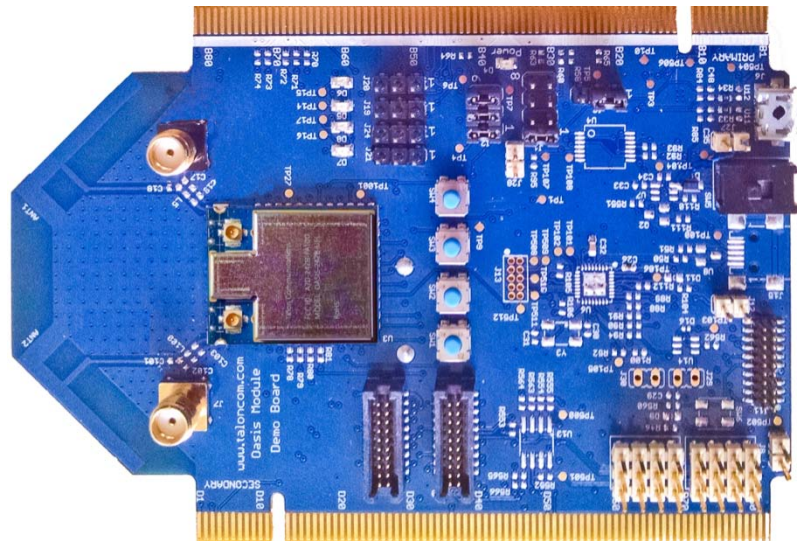


TWRPI

Sierra Wireless mangOH™ IoT



Freescale Tower



Arduino / Freedom

