

#### TECHNICAL SUPPORT

Free technical support is provided via email to [support@i-syst.com](mailto:support@i-syst.com) and indirectly through blog post and community forums:

<https://devzone.nordicsemi.com>  
<http://embeddedsoftdev.blogspot.ca/p/ehal-nrf51.html>

#### SOFTWARE SUPPORT

Nordic Bluetooth Low Energy stack and SDK can be downloaded from <http://www.nordicsemi.com> with the provided product key

#### CUSTOMIZATION

I-SYST can assist you in both software and hardware development: Custom base board, BSP customization, Firmware development, etc...

For more information please visit us at: <http://www.i-syst.com>

# IMM-NRF51822

## Bluetooth® 4.0 Low Energy Micro-module



The nRF51822 is an ultra low power System on Chip (SoC) from Nordic Semiconductor. It integrates the nRF51 series 2.4GHz transceiver, a 32 bits ARM® Cortex™-M0 CPU, Flash memory, analog and digital I/O. The nRF51822 supports both Bluetooth Low Energy and proprietary protocols.

The IMM-NRF51822 is a 23 x 17 mm micro-module with embedded PCB antenna. It allows developers to take full advantage of the nRF51822 by making all its I/O available via 35 SMD/Through hole 1.27mm pitch pads. The module can be mounted with header pins in order to re-use during development and prototyping phase and SMD it for production to be the most cost effective.

Quick start and examples code on <http://embeddedsoftdev.blogspot.ca/p/ehal-nrf51.html>

## Features

- 32 bits ARM® Cortex™-M0 @ 16MHz.
- 2.4GHz multi-protocol transceiver
- 16KB SRAM.
- 256KB Flash
- 31 configurable I/O pins
- One 32 and two 16 bit timers with counter mode
- 16 channel CPU independent Programmable Peripheral Interconnect (PPI)
- Encryption -128 bit AES ECB/CCM/AAR co-processor
- RNG, RTC
- Temperature sensor
- Up to 4 PWM
- Digital interfaces SPI Master/Slave, 2-wire Master (I2C compatible), UART (CTS/RTS)
- Quadrature decoder
- 8/9/10 bit ADC - 8 configurable channels
- Low power comparator
- Operating voltage : 1.8V to 3.6V
- Dimension : 23 x 17 mm

## Applications

- Mobile phone accessories
- Wearables
- Beacons
- PC peripherals
- Consumer Electronics (CE) remote controls
- Proximity/Alert sensors
- Sports, fitness and healthcare sensors
- Smart RF tags
- Toys and electronic games
- Intelligent domestic appliances
- Industrial and commercial sensors