nRF51822 Bluetooth Smart Beacon Kit

The nRF51822 Bluetooth® Smart Beacon Kit is a reference design that lets you explore the full range of development possibilities for beacons using Bluetooth Smart technology. It consists of hardware, firmware and apps for both iOS and Android on Bluetooth 4.0 enabled smartphones.

It is ultra-compact at 20 mm diameter and can run from CR1632 coin-cell batteries. The kit has two buttons which can be programmed to enable easy switching between modes and/or functionality, as well as an RGB LED which can be configured to indicate different events. Ten GPIO pins are available for expansion and the kit can be connected to an external programmer/debugger during development work. The nRF51822 Bluetooth Smart Beacon Kit also supports complete Over-The-Air (OTA) Device Firmware Upgrade (DFU) of the application firmware on the nRF51822 chip.

Apps
Nordic Semiconductor has made Apps available for engineers and developers to use for demonstration of Beacon applications. Source code is available from the Nordic Semiconductor website. This source code can act as a starting point for developing your own beacon demonstrators.

KEY FEATURES
- nRF51822 Bluetooth Smart SoC based kit
- Ultra-compact form factor (20 mm diameter)
- 10 GPIO pins available on board
- 2 x buttons
- 1 x RGB LED
- Fully programmable
- Companion Apps available for iOS and Android 4.3

APPLICATIONS
- Bluetooth Smart Beacons

KIT CONTENT
- 1 x nRF51822 Bluetooth Smart Beacon Kit module
- Apps and source code available as downloads
Using the nRF51822 in beacon applications
Beacons operate by simply broadcasting specific format Bluetooth Smart packets to create a unique identifier.

The identifier is comprised of:
- Proximity UUID – 16 bytes
- Major value – 2 bytes
- Minor value – 2 bytes

These 3 values can be used in conjunction to create absolute locations that create locational awareness. Contextual applications can then use these values to offer information and services associated with a particular location. The nRF51822 Bluetooth Smart Beacon application is fully customizable to create your own ID’s.

RELATED PRODUCTS
nRF51822 Bluetooth Smart / 2.4GHz multiprotocol SoC

ORDER INFORMATION
nRF51822-Beacon Demo/Development Kit for Bluetooth Smart Beacons

The nRF51822 Bluetooth Smart Beacon Kit is available from the following online partners:

For more information
Visit www.nordicsemi.com for the complete product specification about this and any other wireless ULP products.

About Nordic Semiconductor
Nordic Semiconductor is a fabless semiconductor company specializing in ULP short-range wireless communication. Nordic is a public company listed on the Norwegian stock exchange.