

emBeacon COIN - Fact Sheet

General Description

The **emBeacon COIN** is a small, low-cost, low-power, customizable Bluetooth Low Energy beacon compatible with most Bluetooth Smart Ready devices. Useable lifetimes of up to several years can be achieved on a single 3V CR2032 lithium **COIN** cell battery.

The **emBeacon COIN** can be used with the free **emBeacon App** (iOS and Android versions available) and is compatible with iPhone 4S, iPad 3, and Android 4.3 or newer devices.

The **emBeacon COIN** can be ordered pre-programmed and serialized to advertise iBeacon-compatible packets with user defined UUID, Major ID, Minor ID, output power, and beacon interval. They can also be ordered native (without any program), or as a custom product with a customer-specified packet format and firmware.

Programmable output power and beacon interval allows customers to fine tune range, latency, and battery lifetime to meet their specific application requirements. Up to 50m range and more than 5 years battery lifetime can be attained.

Sensors can be added to the **emBeacon COIN** to support features such as:

- Photo-diode for detecting light level
- Accelerometer for detecting movement
- Buttons/switches to initiate beaconing and detect and/or count events

In conjunction with custom firmware algorithms, beacon operation can be modified based on such sensor inputs to great benefit.

The **emBeacon COIN** is a circular PCB 26mm in diameter and 6mm thick. An available weather resistant plastic enclosure is offered in a variety of colors with custom labeling. An optional directional antenna with 2xAA battery holder is also available. The **emBeacon COIN** is FCC, IC, CE, Japan, and South Korea certified and fully RoHS compliant.

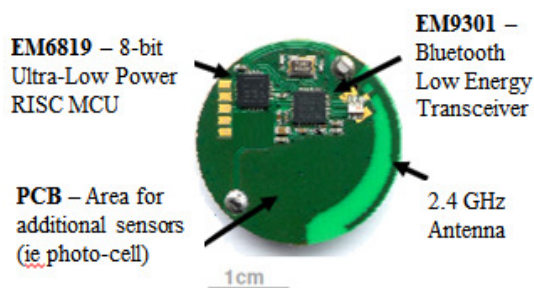


Figure 1: emBeacon COIN Components

Features

- **Small Form Factor**
 - PCB Dimensions 26mm dia. x 6mm (1"x 0.24")
 - Weight: 4grams (1/8oz)
- **Low Cost, Long Battery Life**
 - EM6818 low-power, 8-bit MCU, 6k program
 - EM9301 BLE Controller with PCB antenna
 - CR2032 3V battery
 - Plastic Enclosure
- **Long Range**
 - Up to 50m (150ft) line-of-sight
- **Factory Programmable**
 - Packet Format
 - iBeacon-compatible format
 - UUID, Major ID, Minor ID, Power
 - emBeacon format
 - Battery voltage, temperature, light level, push-button count
 - Custom – Entirely up to you!
 - Output power
 - +3 to -18 dBm
 - Beacon interval
 - 100ms to more than 10 seconds
- **Optional Components**
 - Photo-diode
 - Accelerometer
 - Push-button/Power-Switch
 - LED
 - Custom Enclosure (color, label, etc.)
 - Weather resistant
 - Directional antenna
 - 15 dB forward/reverse isolation
 - 6x6x2cm³ form factor
 - 2xAA battery holder for longer battery life

Compatible Devices

- iPhone 4S and above
- iPad 3 and above (Mini, Air, etc.)
- iPod Touch 5th generation and above
- Android 4.3 and newer devices

Applications

- Customer Experience Enhancement
 - Museums
 - Theme Parks
 - Sports Arenas
 - Shopping Malls
- Push Notification/Alerts
- Geofencing, Geolocation & RTLS
- Proximity Detectors ("Find Me")
- Facility Monitoring – Doors, Lights, Movement