



Bluetooth® Low-Energy Proximity Beacon

General Description

The EMBC01 is a Bluetooth Low-Energy proximity beacon suitable for mass deployment by system integrators. The EMBC01 advertises ID data that is compatible with common beacon standards (UUID, Major ID, and Minor ID). The EMBC01 is part of the coin-cell family of beacons which come in a small, weatherproof enclosure, using a standard coin-cell battery, or as a PCB panel. A push-button with LED feedback can be used to select the right operating mode for your deployment. The EMBC01 operating modes offer tradeoffs between the best performance, range, and battery lifetime.

The push-button can be used to cycle through different beaconing modes. Modes for high performance and long battery life are available. The modes are:

- Sleep Mode with over 7 years of shelf life typical
- ID Short Range Mode offers 100ms beacon interval, 15m range line-of-sight (LOS), and 1.5 months of battery life typical
- ID Medium Range Mode offers 500ms beacon interval, 30m range, and 7.5 months of battery life typical
- ID Long Range Mode offers 1s beacon interval, 75m range, and 12.5 months of battery life typical
- Any mode can be locked for final deployment

The EMBC01 can be delivered in any quantity with guaranteed unique ID numbers. A unique serial number is printed on the label and encoded in a QR code for optical scanning.

Unlike most other beacons on the market today, the EMBC01 can't be hacked. The beacons come pre-programmed with a uniquely defined UUID, Major ID, and Minor ID and cannot be re-programmed wirelessly.

The EMBC01 can be customized for individual deployments with the Proximity Beacon Development Kit. The DVK contains a programmer interface board, cable, and 5 proximity beacons for re-programming. The RLink and RLink-Pro programming tools are available separately.

The EMBC01 is FCC, IC, and CE certified, RoHS, Reach, and halogen free compliant.

Features

- | Weatherproof Enclosure
 - IP-64 rating, -20C to +60C operating range
 - Size: 30mm x 10mm disk; Weight: 7 grams
 - Replaceable CR2032 3V Li battery
 - Integrated push-button with LED indicators
 - PCB-only format also available
- | Accessories
 - Wall-mount
 - Key-fob
 - Wrist-band
- | Selectable ID Mode beaconing
 - ID packet format includes:
 - UUID, Major ID, and Minor ID
 - Output power information
 - Short Range: 15m LOS, 100ms beacon interval
 - Medium Range: 30m LOS, 500ms beacon interval
 - Long Range: 75m LOS, 1 second beacon interval
- | Unique Identification
 - UUID: 699EBC80-E1F3-11E3-9A0F-0CF3EE3BC012
 - Unique Major and Minor IDs (serialized)
 - Unique Serial Number
 - Serial number, Major/Minor ID embedded in QR Code for deployment

“EMBC Finder” Smart Device App

- | (Formerly called “emBeacon”)
- | iOS App available on App Store
 - iPhone® 4S and above
 - iPad® 3 and above (Mini, Air, etc.)
- | Android App available on Google Play™
 - 4.3 and newer devices

Applications

- | Customer Experience Enhancement
 - Stores, Malls, Airports
 - Museums, Theme Parks, Sports Arenas
 - Conferences, Exhibits, Festivals
- | Proximity, Electronic Leash Applications
- | Push Notifications, Alerts
- | Passive data collection
- | Battery, sensor, push-button monitoring using the DVK