

EasyReach BLE Beacon / Industrial Material Tag

Bluetooth Low Energy Tag - Small for asset tracking

Product Overview

The **ER-beacon-V1.1** module is a compact, low-power Bluetooth Low Energy (BLE) 5.3-compliant solution designed specifically for beacon and asset tracking applications. Used widely in tracking moving assets, forklifts, industrial material etc. Designed and manufactured in India, the device beacons at every 1 seconds time intervals. The device supports Custom advertisement format that provides battery level indication. The ABS plastic based enclosure ensures that device is secured inside a sturdy enclosure. Variety of industrial applications use the BLE Tag for



Figure 1 ER-beacon-V1.1

- Tracking forklift, counting round trips
- Monitoring time spent at various locations in factory
- Finding location of the assets in the factory
- Generating alert based on unavailability of the beacon (logic developed on cloud software)

The small form factor, combined with low power consumption, makes it perfect for a wide range of applications such as industrial, retail, and IoT. The device comes with 1 year warranty.

Technical Specifications

Parameter	Value
Bluetooth Version	BLE 5.3
Operating Voltage	1.1V - 3.6V
Sleep Mode Current	< 650nA
Operating Temperature	-40°C to +60°C (industrial)
Package Type	ABS Enclosure
Power Backup	1 year
Communication Range	30-40 meters line of site
Cell	Coin Cell
Replaceable Cell	Yes
Beaconing interval	1 second with 0 dBm power
Dimensions	45.5 mm x 36.5 mm x 16.7mm
Weight	10 gm
Supports	Custom
Acceleration Sensor	No
Temperature Sensor	No
Connectable	No
Battery Indication	Yes

*Battery life depends upon parameters set such as advertising interval, transmit power, Rx mode time., etc.

Custom Payload

Complete BLE Beacon Advertising Payload:			
0x10 09 45 52 2D 42 4C 45 31 2D 32 36 41 30 30 32 38 0D FF A5 0E 00 28 00 F0 61 26 EA FF FF 73			
10	1 Byte	Length of Payload	16 bytes
9	1 Byte	AD Type	Complete Local Name
45522D424C45312D32364130303238	14 Bytes	Device Name	ASCII: "ER-BLE1-26A0028"
0D	1 Byte	Separator	Carriage Return (CR)
FF	1 Byte	AD Type	Manufacturer Specific Data
A5 0E	2 Bytes	Manufacturer ID	Little Endian → 0x0EA5 (EasyReach)
0	1 Byte	Separator	Separator for MAC ID
28 00 F0 61 26 EA	6 Bytes	MAC ID	Little Endian → EA:26:61:F0:00:28
FF FF	2 Bytes	ADC Value	Reserved Bytes
73	1 Byte	Battery Voltage	Battery level value

Important Note

Note: The same configuration is also available in an IP65-rated enclosure.

For higher quantities, EasyReach is flexible to change configuration based on the hardware feasibility
