

BluEpyc Beacon Wake-Up Activator Starter Kit

The new BluEpyc designed hybrid system, consisting of a Beacon Activator device with low-frequency radio for the activation (awakening) of the Tag Beacon and of a Wake-Up Beacon with ultra-low battery consumption. It's an evolutionary step aimed to improve the capability of Bluetooth in the indoor localization of people and assets.

BluEpyc simplifies Bluetooth Low Energy

with Starter Kits: BluEpyc BLE Device, Library, SDK, Drivers & Sample Apps



❖ For features of BluEpyc Wake-Up System see:

[BluEpyc-BLE-Wake-Up-System-Starter-Kit.pdf](#)

[BluEpyc-BLE-booklet-2019](#)

What is the new hybrid architecture and how does it work?

The Zone Method with Bluetooth LE technology is an IPS (Indoor Positioning System) solution that reduces but does not remove, the limits of this technology in the field of localization.

The next evolutionary step, aimed to improve the capability of Bluetooth Low Energy in the indoor localization of people and assets, consists in the special hybrid system, designed by BluEpyc, of the Beacon Activator device with low-frequency radio waves (125 kHz) for the activation (awakening) of the Tag Beacon Wake-up.

This system allows the precise identification of objects or persons during the transit through thresholds or gates. The configuration consists of a low-frequency radio wave transmitter, dedicated to the activation of the Tag Beacon, also equipped with a receiver and decoder at 125 kHz.



Beacon Activator transmitter/wakener (power supplied)

Create a precise activation/wake-up zone for deep sleep Beacons Wake-Up.

Operates in radio transmission technology LF (125KHz) and emits a **special activation signal** up to an average range between 0.6 m and 3.5 m: the Beacon Activator thus creates a radio field, a sort of 3D bubble in which the signal, that also contains its **identification code**, is received by the **BluEpyc Beacon Wake-up**.

Application: **Location Based Services**, safety of warehouse operators, production management and traceability, precision access control, application in the Health sector, etc...

BLE Beacon Wake-Up on trigger, ultra low power, accelerometer sensors & push button.



Collects the data wirelessly from the Beacon Activator (thanks to the receiving 3D antenna) and transmits the Bluetooth LE signal to the EchoBeacon or Gateway.

The Beacon is in **deep-sleep** (low power 600 nA) and is **awakened by the LF signal from the Beacon Activator**; when the LF component of the Beacon Wake-up receives the signal from the Activator, the Bluetooth component of the device is activated, which wakes up and transmits the data (via BLE).

BluEpyc's Beacon Activator & Beacon wake-up system allows you to calculate its position more accurately (10/15 cm.) than a standard Bluetooth architecture.

The most striking feature of the Beacon Activator & Wake-up system is its flexibility, thanks to the on-board firmware, it allows to perform the needed functions and therefore easily adapts to the most various needs.



BluEpyc BLE Beacon Activator Wake-Up System Starter Kit

BE-BWS-SK



1 x BE-BLEG-WM-E



1 x BE-LF-BA-ADV



4 x BE-BW51

1 x **BE-BLEG-WM-E BluEpyc BLE Smart Gateway Industrial Wall Mount Ethernet**

CPU Feature - Low Power 16 Bit 16Mips processor. Host Interface: 10/100 Base-T Ethernet controller. I/O on external connector: 2 x digital input, 2 x Output Relè. Internal interface: 1 x buzzer, 1 x Led bicolor, 1 x I2C Interface. Real Time Clock/Calendar with battery. Slot for Micro SD memory card & SIM Card.

Interface & Firmware Feature - on board Web Server & BLE management protocol, anti-collision, read BLE Advertising & RSSI, Lan/Internet notification mode (TCP), read/write BLE parameter, filtering beacons mask. Possibility of custom applications (on request).

Mechanical Data - Class protection IP67. Radome Plastic (UV rating). Mounting kit Aluminium (for pole). Operating temperature: -25 - +65 °C. Wind speed 160 kmh. Dimensions 185 x 185 x 56 mm. Power Supply 12 Volt DC (not included). Firmware upgradable.

1 x **BE-LF-BA-ADV BluEpyc BLE Beacon Activator Advanced Edition - position detection.**

3D LF field (125 KHz) coded (avoids false ignitions) for ultra low power Wake-Up Beacon. Activator identifier configurable from 0 to 4095 (sent by the Beacon Wake-Up awakened). Adjustable threshold radius: 70-350 cm. (power range 1-100 default 50). Accuracy 10/15 cm.

Integrated BLE 5.1 module (see EchoBeacon functionality). Input: 3 x Digital Input. Output: 2 x output relè. Parameter setting via USB or wireless via BLE (Android App or BluEpyc Start). No need to connect to host. N. 2 on board relays (Location Based Services). Possibility of stand alone operation (local processing, access control with white list, etc. ...). Custom applications on-board (on request). Mechanical Data - Enclosure: ABS Box, dimension: 200 x 110 x 60 mm. Protection class IP 66. Operating Temperature: -25°C to +70°C. Power Supply 11-26 Volt DC (not included).

4 x **BE-BW51 BluEpyc BLE Beacon Wake-Up on trigger - ultra low power, accelerometer sensors & push button.**

Sensors: Wake-Up LF, accelerometer, temperature, push button. Status LEDs (bi-color). Beacon Wake-Up Advertising: Presence (Watch Dog), Wake-Up (with Area Code), Action/Allarm (push button), accelerometer (transmission on movement or free fall). All functions can be activated & customized separately. Setup/test mode (debug mode). Fully customizable parameters (Android App): LF sensitivity, RF transmission power, transmission interval, frame, broadcasting advertising (eg Apple iBeacon, Google Eddystone or custom), accelerometer sensitivity, valid time, out time, etc...

Replaceable battery CR2032 3V Li; life up to 5 years (depending on use). Possibility of custom firmware. Mechanical Data - Enclosure: ASA (UL 94 HB) Box, dimension: 55 x 46 x 17 mm. Protection class IP 65. Operating Temperature: -25°C to +70°C. Mounting accessories (keyfob, wall mount, bracelet). Supplied with: Android App, SDK and BluEpyc Start software.

Standard Reseller & OEM Price - ~~1.432,00~~ Euro

Special Price BluEpyc BLE Wake-Up System Starter Kit

(excluded Freight Cost and VAT, if due)

1.100,00 Euro

🔗 On our ftp site you can download **SDK and tools to quickly start using Starter Kit.**

BluEpyc BLE Starter Kit Order Form	
Company Name:	
Company Address:	
Your Name:	Job role:
Your Email:	Phone Number:
Notes:	

Choose the kit of interest and send it to BluEpyc, you will receive order confirmation and delivery terms.

	Code	Description	Amount
<input type="checkbox"/>	BE-BWS-SK	BluEpyc BLE Beacon Activator Wake-Up System Starter Kit <i>(excluded Freight Cost and VAT, if due)</i>	1.100,00 Euro

For the composition of the kit see the previous pages.

For features of the devices see:

[BluEpyc-BLE-Wake-Up-System-Starter-Kit.pdf](#)

[BluEpyc-BLE-booklet-2019](#)

On our ftp site you can download SDK and tools to quickly begin using Starter Kit. BluEpyc BLE Starter Kit includes:

- Hardware documentation and low level protocol reference manual
- .NET SDK, including C# software samples and development tutorial
- BluEpyc Start software for configuration (all device) and test.
- Windows service for simple data collection (upon request).
- BluEpyc Android App for device configuration

Sales terms	
	Starter kits can only be purchased once
Warranty	All products include one (1) year warranty covering labour and spare parts, with maintenance work carried out in the Distributor's laboratories. The products travel at the customer's expense and risk. The use of non-certified add-on products can cause malfunctions, in these cases the restoration of functionality is subject to the charge of the intervention cost.
Lead Time	Generally available, otherwise about 20 days from the date of the order .
Price	Excluded Freight Cost and VAT, if due. Delivery Ex Works - Customs duty at your expense.
Payment	Anticipated wire transfer
Bank details	UBI BANCA S.P.A Agenzia di Concesio (BS) - IBAN: IT19Y0311154411000000006600

Date

Stamp and signature

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