

## Indoor active localization beacon

The RF800-B beacon has been designed to allow « indoor » localization inside buildings (offices, warehouses, ...) and to provide a solution when GPS localization can't be used.

**This beacon works in the 868/915 MHz radio band which allows larger range and better coverage than BLE beacons in confined spaces. Used with HFI option boards and / or simple MikadoLT DIN control modules, it allows specific operating modes of the portable radio, with or without supervision and geolocation software.**

Beacons are installed at specific points of the site to detect the presence or passage in a specific area. These beacons periodically transmit their identity that can be received by a portable radio with RF800 option board. Depending on the selected mode, this information is transmitted over the wireless network automatically (tracking) or only when a lone-worker alarm occurs (man-down or emergency)



### Main advantages of the system

- **Fully automatic localization**

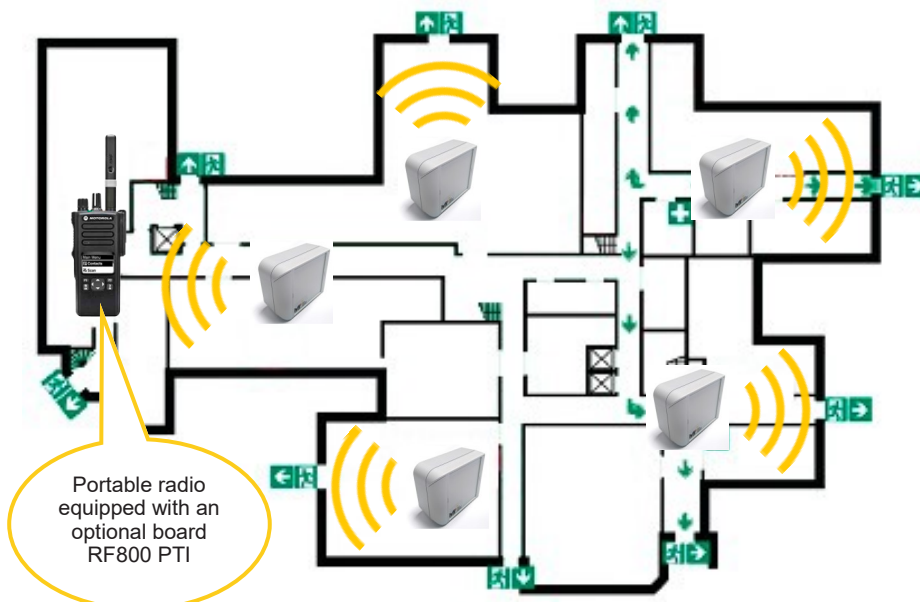
The user has no manual action to perform to be located..

- **Ease and low cost of implementation**

Beacons are autonomous and powered by two standard Alkaline batteries Type D (LR20) 1.5V / 18000 mAh (not included): no power cable. The housing of beacons, which is compact (12 x 9 x 5 cm), rugged, waterproof (IP-66), can be easily installed: wall mount, ceiling, exterior, ...

- **Versatile system**

Localization can be performed continuously or only when emergency or lone-worker alarm occurs.



#### Implementation of the beacon:

The beacons can be installed either on passageways, either for covering large areas (warehouses, workshops, laboratories, etc.).

Their multiple configuration settings allow different solutions and thus can be used in many areas.

## Technical specifications

- **Technology :**

RISC microprocessor with low power consumption to offer an endurance up to several years (4 years pwr:5@t:2s), use of the band 868 MHz or 915 MHz to avoid interference with the portable radio frequencies: current most suitable technologies have been used in designing beacons

- **Endurance :**

The autonomy of tags is 4 years with a typical setting corresponding to a transmission period set to 2 seconds at a power level of 5. This autonomy can reach months by adopting emission 5s period, or decrease significantly if the scheduled transmission period is shorter.

- **Safety :**

The state of the system is controlled automatically: when the batteries are discharged, or if the power supply is missing, an alert is sent. This status information of the system is transmitted to the control unit by the radio network when a portable radio is in the coverage area of the beacon, along with the localization information. So, continuous system and beacons testing is achieved when a portable radio circulates in the areas under coverage.

- **Settings :**

All beacon settings are configured easily and remotely using wireless programming tools (software + dongle). The transmission power control is tunable on 7 levels up to 10mW, and the transmission rate can be adjusted from 0.22 to 120 seconds.

- **Compatibility :**

The RF800-B beacons are compatible with option boards RF800-M, RF800-MD, RF800-MD4, RF800-K and different operating softwares.

For more information please contact us.



Wireless programming tools: ProgPC-BT software



+ BlueLoc



## Technical characteristics

- Overall dimensions: 120 x 90 x 50 mm
- Weight : 198 g (Without batteries)
- Operating Temperature -10 à + 50 °C
- Storage temperature : - 30 à + 80 °C
- Average consumption : 500 uA for 2s period
- Protection index : IP66
- CE R&TTE EN 300 220-1 & 2, EN 31 489-1 & 3, EN 61000-4 2 & 3, EN 60 950-1
- Power : 7 adjustable levels (-up to 12 dBm)
- Radio coverage : 0.5m à > 30m (indoor), > 100m (outdoor)
- Used frequency : 868 MHz—915 MHz
- Transmission rate (0.2s to 120 secs)
- Power supply: two D-type Alkaline batteries (LR20) 1.5V / 18000 mAh (not provided).



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