

Active UHF Beacon Tag i-B2L – Marker Version - Preliminary



The i-B series is the **beacon** generation of IDENDEC SOLUTIONS' Intelligent Long Range® (ILR®) active RFID tags. Built on IDENDEC SOLUTIONS' patented high-performance technology, the i-B2L tag provides impressive long-range capabilities for wireless applications that require the benefits provided by beacon tags. Static data is written on an i-BL tag and is continuously sent at a programmable interval (ping rate) without being requested by a reader.

The i-B2L series offers an attractive price for continuous tag collection in specific scenarios such as:

- Access control
- Tracking of Vehicles and Containers
- Online inventory
- Localization of assets or personnel at specific areas (i.e. gates, dock doors)

Using advanced UHF radio frequency technology, i-B2L tags send data at distances of up to 100 meters (300 feet) to either a mobile (handheld) or fixed reader (interrogator).

Due to the ultra-low power consumption and configurable ping rate (one second to four minutes), the i-B2L tag can effectively operate maintenance-free for many years.

The i-B2L tag is the most economical choice for basic long-range technology and is ideal for tracking mobile assets in more stable, predictable environments.

Features

- 100-meter read range
- Long battery lifetime
- UHF operating frequencies
- Non-line-of-sight data transmission
- Automatic transmission
- Industrial housing
- Customizable ping rate
- Low cost
- Marker Technology

Benefits

Allows the longest read-range for identification and tracking using beacon technology.

Delivers long time maintenance-free operation, without battery replacement. The battery lifetime depends on the ping rate, which is configurable.

Ping-Rate	Durability (Years)
1s	2
2s	4

Tags are available for both standard North American and European ISM band frequencies.

Allows tags to be identified without the need of visual contact.

Tags do not have to be "woken" — they transmit automatically.

Durable in demanding environments.

Ensures that the frequency band is not busy.

Economical choice for tracking assets with active RFID technology.

Precise position location of the Tag via its 125KHz inductive loop coils in 3 axis.

IDENDEC SOLUTIONS

IDENDEC SOLUTIONS is a leading global supplier of innovative RFID systems (Radio Frequency Identification) with communication ranges of up to 100 metres.

With its unique Intelligent Long Range® (ILR®) technology, IDENDEC SOLUTIONS offers innovative and economical solutions for automated data gathering, identification, tracking, and localization of objects.

ILR technology makes it possible to ensure that

- the right goods,
- in the right amounts,
- in the right condition,
- with the right information
- are located at the right place
- at the right time,

leading to increased efficiency and quality improvements in Production, Logistics and Supply Chain Management.

To learn more about how ILR technology can increase the efficiency of your business, contact IDENDEC SOLUTIONS or visit our website at www.identecsolutions.com.

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Technical Specifications

Performance

Read range to i-PORT R2	Up to 100 m (300 ft) (free air)
Read range to i-CARD R2	Up to 100 m (300 ft) (free air)
Operating frequency	868 MHz (EC) or 915 MHz (NA) ISM band
Triggering frequency band	125 kHz
Operation	Transmits in regular intervals a pre-programmed data string
Repetition rate (ping rate)	0.5 – 60 seconds in 0.5 second steps
Antennas:	1 Omnidirectional PCB Antenna, 3 inductive coil antenna for 3 dimensions x,y,z
Transmit power	<1 mW
Certification	CE (EN 300 220-1, -3; ETSI EN 301 489-1, -3), FCC Part 15

Electrical

Power source	Lithium battery (not replaceable)
Expected battery life	2 Years @ 4 second intervals

Data

Programmability	One time
Programming and activation	Wireless by proximity device over a distance of maximum 5 cm
Reprogrammable	No
Deactivation	No
Memory capacity	13 characters or 17 bytes

Environmental

Operating temperature	–40°C to +85°C (–40°F to +158°F)
Shock	50 G, 3 times DIN IEC 68-2-27 Multiple drops to concrete from 1 m (3 ft)
Vibration	3 G, 20 sine wave cycles, 5 Hz to 150 Hz, DIN IEC 68-2-6 5 G, noise 5 Hz to 1000 Hz, 30 minutes DIN IEC 68-2-64

Physical

Type	i-B2L potted version
Dimensions	131 mm x 28 mm x 21 mm (5.2 in. x 1.1 in. x 0.85 in.)
Case Material	Plastic (Luran® S)
Mass	100 grams
Enclosure rating	IP 65 — Protected against dust and low-pressure jets of water
Colour	dark blue or grey

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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