

Active UHF Beacon Tag i-B2L P Marker Version — Preliminary



IDEN TEC SOLUTIONS' ILR i-B2L P tags are designed to be cost effective, easy to implement and maintain offering maximum flexibility. The beacon tags are continually send out their ID at pre-programmed intervals. They do not need to be interrogated in order for them to send their information—they do it automatically.

The Marker technology allows selective locating of a transponder for example in adjacent car tracks. Here the inductive Marker field informs the transponder about its current location. In a moment the transponder sends its location information several times to a central unit. For this data transmission it uses its long range RFID abilities.

Even after the transponder has left the Marker field it transmits this data steadily at a configurable ping rate.

The i-B2L series offers an attractive price for continuous monitoring and optimisation of logistics in the supply chain.

The main applications are:

- 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 from 0.5 seconds up to 1 minute, the battery lifetime is very long.

The i-B2L tag from IDEN TEC SOLUTIONS is the most economical choice for typical long range RFID applications and an ideal solutions for tracking and tracing of mobile objects.

Features

- 100 meter read range
- Long battery lifetime
- Customizable ping rate
- UHF operating frequencies
- Non-line-of-sight data transmission
- Automatic transmission
- Cost-effective

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 mainly on the ping rate, which is configurable.

To optimize battery consumption, dynamic appearance and RF band use.

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.

Creates the economical conditions for the usage of active high performance RFID technology to track and trace objects.

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.

The OIS product range offers automatic identification systems of different technologies, suitable for operation in the rough environment as in industry and logistics while providing high reliability. OIS transponders are equipped with up to 32 kBytes of memory and can withstand up to 235 °C.

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

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Technical Data

Operating Data Long-Range RFID (ILR, Beacon Technology)

Read range	Up to 100 m in free air
Operating frequency	868 MHz (EU) or 915 MHz (NA) ISM band
Operation mode	Transmits marker information in at regular intervals
Repetition rate (ping rate)	0,5 – 60 seconds, adjustable in steps of 0,5 seconds
Transmit power	< 1 mW
Compatibility	i-PORT 4B, i-PORT MB, i-CARD CF B

Operating Data Inductive Loop (Marker)

Read range	Up to several meters
Operating frequency	125 kHz (world-wide approved)
Operation mode	Receives marker ID number and transmits marker information several times

Electrical Data

Power supply	Lithium battery (not replaceable)
Battery lifetime expectancy	> 1 years @ 5 seconds ping rate and 3600 seconds per day inside the marker field > 2 years @ 10 seconds ping rate and 3600 seconds per day inside the marker field

Configuration

The transponder is configured using the i-B2-Programmer in a distance of max. 5 cm.	
Ping rate	Configurable from 0.5 to 60 seconds in steps of 0.5 seconds
Number of burst	Configurable from 0 to 15

Environmental Conditions

Operating temperature	-20 to +70 °C (-4 to +158 °F)
Shock	1 m free fall, 3 times onto concrete floor, DIN IEC 68-2-27
Vibration	3 G, 20 sine wave cycles, 5 to 150 Hz, DIN IEC 68-2-6 5 G, noise 5 to 1.000 Hz, 30 minutes, DIN IEC 68-2-64

Mechanical Data

Dimensions	87 × 50 × 7 mm (3,4 × 2 × 0.28 inches)
Casing	Plastics (Luran® S), light grey
Mass	27.5 g
Protection class	IP 52

EMC

Certifications	CE (EN 300 220-1, -3; ETSI EN 301 489-1, -3), FCC Part 15 (US), Industry Canada
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FCC Compliance: This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING:

Changes or modifications not expressly approved by manufacturer could void the user's authority to operate the equipment.

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