

Active UHF Tag i-D2



The i-D series is the next generation of IDENTEC SOLUTIONS' Intelligent Long Range® (ILR®) active RFID tags. ILR® provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- Identification
 - Tracking and Tracing and
 - Localization
- of assets or people.

Using advanced UHF radio frequency technology, i-D tags transmit and receive data at distances of up to 6 meters (20 feet) from either a handheld or fixed interrogator.

The unique, highly sophisticated anti-collision multi-tag-handling algorithm allows communication to tags even when hundreds of tags are within the interrogator's read zone.

Because of its very lowpower consumption, the tag can operate effectively for over 6 years.

Also, the optional LED supports visual recognition, such as, for example, for "pick-to-light" applications.

The i-D2 tag, with its credit card-style design, is very economical and an ideal fit for high-volume tracking of assets and people.

Features

- 6 meter read/write range
- 64 byte data memory
- UHF operating frequencies
- 100 tag/sec. identification rate
- 2,000 tag simultaneous identification
- LED (optional)
- 6 year battery lifetime
- Card-style packaging
- Communication on demand only
- Non-line-of-sight data transmission
- Low cost

Benefits

Allows automated identification, tracking and tracing of assets and people without human intervention.

Stores user and process information onto the tag to provide real-time tracking and tracing.

Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions. Operates interchangeably on European and North American frequencies so the same infrastructure can be used for global transports.

Provides reliable identification of fast-moving-objects.

Large numbers of tags can be identified virtually simultaneously.

Provides visual identification of an addressed tag ("pick to light").

Delivers long time maintenance-free operation, without battery replacement.

Offers thin, lightweight, versatile packaging in two styles for people and asset tracking.

Eliminates RF flooding through software-controlled read/write operations.

Allows tags to be buried while transmitting for improved tracking/locating efficiency.

Economical tracking of large quantities of assets using high-performance active technology.

IDEN TEC SOLUTIONS

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

With its unique Intelligent Long Range® (ILR®) technology, IDEN TEC 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 efficiency of your business, contact IDEN TEC SOLUTIONS or visit our website at www.identecsolutions.com.

In Europe:
+43 5577 87387-0, or
sales@identecsolutions.at

In North America:
1-877-IDEN TEC (toll free), or
sales@identecsolutions.com

Information in this document is subject to change without notice and becomes contractual only after written confirmation by IDEN TEC SOLUTIONS.

"IDEN TEC SOLUTIONS", "Intelligent Long Range", "ILR", "i-LINKS", "i-O", "i-D", "i-CARD", "i-PORT", "Solutions. It's in our name." and the stylized "i" are trademarks or registered trademarks of IDEN TEC SOLUTIONS, Inc. and/or IDEN TEC SOLUTIONS AG.

Copyright © 2003 by IDEN TEC SOLUTIONS.
All rights reserved.
Version 5.23

Technical Specifications

Performance

Read rate	Up to 100 tags/s (only Identification Code) Up to 35 tags/s @ 128 bit data reading
Max. response time	< 10 ms (single tag)
Multiple tag handling	Up to 2,000 tags in the read zone

Communication

Read/write range	Up to 6 m ¹⁾
Operating frequency	868 MHz (EC) or 915 MHz (NA) ISM Band
Data rate (download to tag)	38.4 kbits/s
Data rate (upload to reader)	115.2 kbits/s
Standards / Certification	EN 300 220 (EC); FCC Part 15 (US); Industry Canada

Electrical

Power source	Lithium battery (not replaceable)
Expected battery life	>6 Years @ 600 times 64 bit readings/day
Battery monitoring	Yes
Option	LED

Data

Data retention	>10 years without power
Write cycles	100,000 writes to a tag
Memory size	64 bytes (56 byte user definable)
Identification code	48 bit fixed ID (one in one trillion)

Environmental

Operating temperature	-20°C to +70°C (-4°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 min DIN IEC 68-2-64

Enclosure rating

Personnel tag	IP 52
Industrial tag	IP 52

Physical

Dimensions Personnel tag	87 mm x 50 mm x 7 mm (3.94 in. x 1.97 in. x 0.27 in.)
Dimensions Industrial tag	100 mm x 50 mm x 7 mm (3.94 in. x 1.97 in. x 0.27 in.)
Enclosure	Plastic (ASA / Luran® S)
Weight	27g (0.95 ounces) Standard tag housing 24g (0.84 ounces) Personnel tag housing

¹⁾ at 27 dBm ERP @ Antennaport