

Active UHF Tag i-D2



The i-D series is the next generation of IDEN TEC 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 low power consumption, the tag can operate effectively for over 6 years.

Also, the optional LED supports visual recognition, such as, for example, for "pick-by-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. It is also available in an i-Q housing for use in more demanding environments.

Features

- 6-meter (20ft) read/write range
- 64-byte data memory
- UHF operating frequencies
- 100-tag/s identification rate
- 2,000-tag simultaneous identification
- LED (optional)
- 6-year battery lifetime
- Two types of housing
- 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 by light").

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

Credit card-style packaging:

Offers thin, lightweight, versatile packaging in two forms suitable for personnel or asset tracking.

i-Q8 style housing:

For reliable use in more demanding environments.

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

IDENDEC SOLUTIONS

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

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 efficiency of your business, contact IDENDEC SOLUTIONS or visit our website at www.identecsolutions.com.

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

In North America:
1-866-402-4211 (toll free), or
sales@identecsolutions.com

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This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject 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.

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 minutes DIN IEC 68-2-64

Physical

Enclosure Plastic (ASA / Luran® S)

	Dimensions	Weight	Enclosure rating
i-D2 S (Standard tag) 	131 x 28 x 21 mm (5.16 x 1.1 x 0.83 in.)	50 g (1.76 oz)	IP 65
i-D2 P (Personnel tag) 	87 x 50 x 7 mm (3.43 x 1.97 x 0.27 in.)	27 g (0.95 oz)	IP 52
i-D2 I (Industrial tag) 	100 x 50 x 7 mm (3.49 x 1.97 x 0.27 in.)	24 g (0.85 oz)	IP 52
i-D2 R (Rugged tag) 	130 x 58 x 19 mm (5.12 x 2.28 x 0.75 in.)	95 g (3.35 oz)	IP 67/IP 69K

¹⁾ at 27 dBm ERP with i-A9185 Antenna Connector

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

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www.identecsolutions.com

Europe:

Austria: IDENDEC SOLUTIONS AG, Millennium Park 2, 6890 Lustenau / AUSTRIA Tel: +43 (0)5577 87387-0 Fax: +43 (0)5577 87387-15
Germany: IDENDEC SOLUTIONS Deutschland GmbH, Hertzstr. 10, 69469 Weinheim / GERMANY Tel.: +49 (0)6201 9957-0 Fax: +49 (0)6201 9957-99

North America:

USA: IDENDEC SOLUTIONS INC., Liberty Plaza II, 5057 Keller Springs Rd. Suite 375, Addison, Texas 75001 Tel: +1(972) 535 4144 Fax: +1(469) 424 0404