

Active UHF Tag

i-Q310 ATR ISO 18000-7 Asset Tag



The i-Q310 series of tags is IDENTEC SOLUTIONS' well-established generation of Intelligent Long Range® (ILR®) active RFID tags based on the ISO 18000-7 standard.

ILR provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- identification
- tracking and tracing.

Using advanced UHF radio frequency technology, i-Q310 ATR tags transmit and receive data at distances of up to 100 meters (300 feet).

The standardized anti-collision multi-tag-handling algorithm allows communication to tags even when thousands of tags are within the interrogator's read zone.

Because of its very low power consumption, the tag can operate effectively for over 3 years.

Integrated speaker supports acoustic signalization during search, locate and alarms.

The i-Q310 tag line can withstand the abuse expected from work processes; the tags are very economical and an ideal fit for high volume tracking of assets.

Features

- 100-meters (300 ft) read/write range
- 2K byte memory
- 433 MHz operating frequency
- ISO / IEC 18000-7 compatible
- Speaker
- 3-year battery lifetime and more
- Replaceable battery
- Communication on demand only
- Non-line-of-sight data transmission
- Low cost

Benefits

- Allows automated identification, tracking and tracing of assets without human intervention.
- Stores 2K of user data.
- Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions.
- Manufacturer independent interoperation. US DoD and NATO ITV compatible.
- Acoustic signalization during search, locate, alarms.
- Delivers long-time maintenance-free operation, without battery replacement.
- Battery is replaceable to extend the tag's lifetime.
- 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

Information in this document is subject to change without notice and becomes contractual only after written confirmation by IDENDEC SOLUTIONS. "IDENDEC SOLUTIONS", "Intelligent Long Range", "ILR", "i-LINKS", "i-Q", "i-D", "i-B", "i-CARD", "i-PORT", "Solutions. It's in our name.", "Smarten up your assets." and the stylized "i" are trademarks or registered trademarks of IDENDEC SOLUTIONS, Inc. and/or IDENDEC SOLUTIONS AG.

Copyright © 2008 by IDENDEC SOLUTIONS.
All rights reserved.
Version 1.2 08/08

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 (Collect Tag Identification Code only)
Max. response time	< 150 ms (single tag)

Communication

Read range	Up to 100 m (300 feet) @ free air
Write range	Up to 100 m (300 feet) @ free air
Operating frequency	433.92MHz
Data rate (download to tag)	27.778 Kbits/s
Data rate (upload to reader)	27.778 Kbits/s
Frequency	433.92MHz international ISM band
Modulation	FSK ± 50 kHz at 27.778 kHz data rate
Sensitivity	-85dBm / range at least 300ft (~100m)
Maximum transmission power	1mW- comply with national regulations
Standard / Certification	ISO/IEC 18000-7

Electrical

Power source	Lithium battery (replaceable)
Expected battery life	typically 3 years and more depending on usage
Battery monitoring	Yes

Data

Data retention	>10 years without power
Write cycles	100,000 writes to a tag
Memory size	2K bytes
Identification code	32 bit fixed ID

Environmental

Operating temperature	-40°C to +80°C (-40°F to +176°F)
Humidity	10% to 90% relative humidity at 30°C (+86°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

Dimensions	5.81 in. x 2.17 in. x 1.5 in.
Dimensions w/ mount:	6.19 in. x 2.17 in. x 1.77 in
Enclosure	Plastic (ASA / Luran® S)
Weight	100 g (3.52 ounces)
Enclosure rating	IP 65

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

Contents subject to change without notice.

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