

Active UHF Tag

i-Q310 DRT ISO 18000-7 Data Rich 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 DRT tags transmit and receive data at distances of up to 100 meters (300 feet).

These tags include also hardwire interface for fast and secure data upload and download with memory of up to 128 kilobytes.

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 come in various form factors and with various features and memory sizes and are ideal fit for high volume tracking of assets.



Features

- 100-meters (300 ft) read/write range
- 128K byte memory
- 433 MHz operating frequency
- ISO / IEC 18000-7 compatible
- Speaker
- USB 2.0 Hardwire Interface
- 3-year battery lifetime and more
- Replaceable battery
- Communication on demand only
- Non-line-of-sight data transmission

Benefits

- Allows automated identification, tracking and tracing of assets without human intervention.
- Stores up to 128K 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.
- Fast and secure data transfer with USB connection with mini-B connector.
- 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.

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) |

RF 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 |

Hardwire Communication

| | |
|-----------|---------|
| Standard | USB 2.0 |
| Connector | Mini-B |

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 | 128K 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