

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.

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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 (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

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