

Active UHF Tag i-Q350TL F



The brand new i-Q350 series of tags combines the features of IDEN TEC SOLUTIONS' well-established i-Q and i-B series. In addition the i-Q350 series tags provide an even larger communication range of up to 500 m.

Furthermore the i-Q350TL F is also equipped with the Marker technology for locating goods, vehicles, etc. The Marker technology allows selective locating of a transponder for example in adjacent car tracks. Here the inductive Marker field informs the transponder about its current location.

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

- identification
- tracking and tracing
- localization and
- temperature monitoring.

Using advanced UHF radio frequency technology, i-Q350TL F tags transmit and receive data at distances of up to 250 m (800 feet). In addition they can be configured to beacon data at a configurable rate to a range of up to 500 m (1600 ft).

The i-Q350TL F tag contains an internal sensor for temperature monitoring in order to measure and log the temperature of goods in definable intervals.

With its LED, the tag supports visual recognition, such as, for example, for "pick by light" applications. The light is visible from almost every direction

Features

- Tag operates in beacon mode
- Tag operates in response mode
- 2000-tag simultaneous identification
- 360° LED
- Pushbutton
- Industrial housing
- Temperature logging
- 10,000 Bytes memory
- UHF operating frequencies
- 6 year battery lifetime
- Non-line-of-sight data transmission
- European and North American versions

Benefits

- In this configurable operation mode the tag can automatically transmit data over a range of up to 500 m (1600 ft).
- In this standard operation mode data can be written onto or read from the tag over a range of up to 250 m (800 ft).
- Large numbers of tags can be identified virtually simultaneously.
- Provides visual identification of an addressed tag ("pick by light").
- Enable manual status check.
- Durable in demanding environments.
- Measures and logs the temperature of goods in definable intervals.
- Stores user and process information as well as temperature data onto the tag to provide real-time tracking and tracing. Can be used as an electronic packing slip or as an electronic shop traveler.
- Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions.
- Delivers long-time maintenance-free operation, without battery replacement.
- Allows tags to be identified without the need of visual contact.

IDENTEC SOLUTIONS

IDENTEC SOLUTIONS is the global leader in active wireless tracking solutions. A commitment to developing ground-breaking, industry-specific tracking solutions featuring proprietary patented technology has placed IDENTEC SOLUTIONS in the international forefront as a technology provider for innovation and as a complete solution provider in the automotive, oil, gas and mining industries.

Utilized by the world's leading organizations and system integrators, IDENTEC SOLUTIONS' award-winning technology portfolio offers robust, highly effective tracking solutions that manage critical process and optimize supply chain flow. Privately held since 1999, IDENTEC SOLUTIONS has provided asset management solutions and support to a variety of organizations, including an impressive roster of Fortune 500 clients such as Volkswagen, Audi, Deutsche Post and General Electric. Headquartered in Lustenau, Austria, the company's North American headquarters are located in Dallas, Texas, with customer service centers in Germany, Australia and Norway. For more information, please visit:

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.

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

"IDENTEC 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 IDENTEC SOLUTIONS, Inc. and/or IDENTEC SOLUTIONS AG.

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Technical Data

Operating Data

Operating frequency ILR-RFID	868 MHz (EU) or 920 MHz (NA), further frequencies on request
Maximum transmission power	0.75mW (EU / NA)
Compatibility	i-PORT M 350, i-CARD CF-350
Standards/Certification	FCC Part 15 (US), ETSI EN 300 220 (EU)

Communication Data Long-Range RFID (ILR, Response Technology)

Multiple tag handling	Up to 2,000 tags in the read zone
Read/write range response mode	Up to 250 m (800 feet), free air*
Data rate response	19.2 to 115.2 kbits/s

Communication Data Long-Range RFID (ILR, Beacon Technology)

Read range broadcast	Up to 500 m (1600 feet) free air*
Operation mode	Transmits marker information in at regular intervals
Repetition rate (ping rate)	0,5 – 300 seconds, adjustable in steps of 0,5 seconds
Data rate broadcast	115.2 kbits/s

* The communication range depends on the antenna type, the antenna cable runs and the environmental conditions.

Communication Data Inductive Loop (Marker)

Read range	Up to several meters
Operating frequency	125 kHz (world-wide approved)
Operation mode	Receives marker ID number and transmits marker information several times

Electrical

Power source	Replaceable Lithium battery
Battery monitoring	Yes

Temperature Logging

Number of samples	10,000
Logging interval	User definable in intervals from 1 to 255 min
Measuring interval	User definable in intervals from 0 s to 255 min
Metering range	-40 °C to +85 °C (-40 °F to +176 °F) with std. internal sensor -80 °C to 110 °C (-112 °F to +230 °F) with std. external sensor Other metering ranges are available on request
Resolution	0.1 °C (0.2 °F)
Accuracy	±0.5 °C (1 °F) from -20 °C up to +50 °C, ±1 °C (2 °F) in the remaining temperature range

Data

Data retention	>10 years without power
Write cycles	100,000 writes to a tag
Memory size	10,000 Bytes user definable
Identification code	48 bit fixed ID

Environmental Conditions

Operating temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Humidity	10 % to 95 % relative humidity @ 30 °C
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	137 × 37.5 × 26.5 mm (5.4 × 1.48 × 1.04 in.)
Enclosure	Plastic
Weight	50 g (1.75 ounces)
Enclosure rating	IP 65

US Patent Technology

United States Patent No.	6,563,417
United States Patent No.	7,053,777



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