



i-PORT M 350 RTLS READER



The RTLS system is the newest development in IDEN-TEC SOLUTIONS' SensorSMART Platform. SensorSMART provides highly accurate, real-time data collection with minimal human intervention.

The very long communication range of up to 500 m (1600 ft) allows automated identification, tracking and tracing of assets and people in areas as large as a steel construction workshop without human intervention.

With the fast localization speed, the information not only about the identity but also about the exact position is truly real-time. The i-PORT M 350 RTLS is the main unit to collect all the identification and position information from several hundred tags within its read zone. The high rate of transmission allows communication even with rapidly-moving Tags.

The new RTLS system allows localization of tags down to a few metres. This new series of SensorSMART products is the next step forward in wireless applications such as:

- Identification
- Tracking and tracing and
- Localization of assets or personnel.

BENEFITS

500-tag simultaneous identification - Large numbers of tags can be identified virtually simultaneously.

Response communication mode - The i-PORT M 350 RTLS offers the ability to adjust the read/write range with i-Q350 tags from a range of < 1 meter (3 feet) up to 250 m (800 ft).

Beacon communication mode - The i-PORT M 350 RTLS can detect the broadcast messages of i-Q350 tags from a distance of up to 500 m (1600 ft).

Up to 300 m (1000 ft) localization range - Allows automated localization of vehicles, assets and people without human intervention.

400 localizations per minute - This fast speed provides real-time information.

Light Infrastructure Automatic gathering of information from several i-SATs/i-PORTs. Preprocessing of multiple position information from the RTLS transponders. This key element of the system can be vamped up easily with little effort for challenging areas that require a higher visibility.

FEATURES

- 500-tag simultaneous identification
- Response communication mode
- Beacon communication mode
- Up to 300 m (1000 ft) localization range
- 400 localizations per minute
- Light Infrastructure
- ISM and UHF operating frequencies
- Communication on demand only
- Industrial housing

Information in this document is subject to change without notice and becomes contractual only after written confirmation by IDEN-TEC SOLUTIONS. "IDEN-TEC 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 IDEN-TEC SOLUTIONS, Inc. and/or IDEN-TEC SOLUTIONS AG.

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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.



i-PORT M 350 RTLS READER

IDENTEC SOLUTIONS delivers innovative wireless sensor technology and systems that are helping transform the way business manages industrial processes and safeguards lives.

Committed to developing industry-leading, low power and long-range sensor based solutions, IDENTEC SOLUTIONS' SensorSMART networks have been setting the industry standard since 1999. Currently deployed on every continent throughout the globe in the Marine, Intermodal & Logistics, Oil, Gas & Mining, Construction industries as well as sought out by the world's leading system integrators and governments; IDENTEC SOLUTIONS patented technology is helping to optimize productivity in some of the continent's most challenging situations. Robust, flexible and powerful IDENTEC SOLUTIONS technology delivers when others cannot.

IDENTEC SOLUTIONS is privately held, with its corporate office located in Lustenau, Austria, and North American headquarters in Dallas, Texas, along with service centers in Germany, Australia and Norway. For more information, please visit www.identecsolutions.com.

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.

TECHNICAL SPECIFICATIONS

Operating Localization Communication (2400 – 2485 MHz ISM Band)

Localization range	Up to 300m (1000 ft) in free air with
Maximum transmission power	100 mW EIRP or local regulation
Standards/Certification	ISO 24730 part 5 FCC part 15, EN 300 328 (EU)
Compatibility	i-Q350 RTLS series tags

Operating Data Long-Range RFID (ILR, UHF Band)

Beacon range	Up to 500 m (1600 ft) in free air with line of sight
Read/write range	Up to 250 m (800 ft) in free air with line of sight
Frequency	868 MHz band (EU) and 919, 920 MHz (NA)
Data rate (read and write)	19.2 up to 115.2 kbits/s
Transmit power	≤ 10 mW/+10 dBm, depending on national regulations, software adjustable
Standards/Certification	FCC Part 15 (US), Industry Canada, EN 300 220 (EU)
Compatibility	i-Q350 and i-Q350 RTLS series tags

Performance

Identification code	48 bits fixed ID
Localization rate	Up to 400 tags per minute per zone
Multiple tags handling	Up to 500 tags in the read zone

Antennas

RFID	1 SMA connector for external antenna at 868 (EU) or 915 MHz (US)
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Localization

	1 SMA connector for external antenna at 2.4 GHz
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Interfaces

Data interface master/host	i-BUS (RS422) or Ethernet
Data interface slave	i-BUS (RS422); for cascading additional i-PORT M 350 RTLS
Status display	4 LEDs (UHF, RTL, RUN, BUS, ERR)

Electrical

Power source	10 – 30 VDC
Power consumption	< 2 W

Environmental

Operating temperature	-30 °C to +70 °C (-22 °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
Humidity	90 %, non-condensing

Physical

Dimensions	97 × 67 × 97 mm (3.8 × 2.6 × 3.8 in.) 153 × 67 × 97 mm (6.0 × 2.6 × 3.8 in.) incl. cover
Case Material	Plastic
Mass	150 grams (5.29 ounces)
Enclosure rating	IP 64 with cover

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