



# i-PORT M 350 READER



Readers from the i-PORT M 350 series are the newest development in IDEN TEC SOLUTIONS' SensorSMART network infrastructure.

SensorSMART provides highly accurate, real-time data collection with minimal human intervention in wireless applications such as:

- identification
- tracking and tracing and
- localization of assets or personnel.

Using advanced UHF radio frequency technology, the i-PORT M 350 communicates at distances of up to 500 meters (1500 ft). The unique, highly sophisticated anti-collision

algorithm guarantees identification of thousands of Tags located concurrently within the interrogator's read zone. The high rate of transmission allows communication even with rapidly-moving Tags.

Combined with other IDEN TEC SOLUTIONS system components, the Readers from the i-PORT M 350 series offer a leading-edge wireless, automated data collection tool that is easily integrated into advanced information systems.

## BENEFITS

Communication with response tags - Communication with response tags - The i-PORT M 350 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).

Collecting data from beacon tags- Collecting data from beacon tags - The i-PORT M 350 can detect the broadcast messages of i-Q350 tags from a distance of up to 500 m (1600 ft).

2000-tag simultaneous identification - Large numbers of tags can be identified virtually simultaneously.

Data interface master/host - i-BUS (RS422), Ethernet or WLAN.

Data interface slave - i-BUS (RS422); permits daisy-chaining of several Readers to a host interface; also provides for only one connection for power supply and data transmission.

Communication on demand only - Eliminates RF flooding through software-controlled read/write operations.

## FEATURES

- Communication with response tags
- Communication on demand only
- Collecting data from beacon tags
- Industrial housing
- 2000-tag simultaneous identification
- Communicates with all i-Q350 tags
- Data interface master/host
- European and North American versions
- Data interface slave
- i-BUS (RS422); permits daisy-chaining

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.

Copyright © 2010 by IDEN TEC SOLUTIONS. All rights reserved. Version 1.8 4/12/2010

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 READER

IDEN TEC 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, IDEN TEC 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; IDEN TEC SOLUTIONS patented technology is helping to optimize productivity in some of the continent's most challenging situations. Robust, flexible and powerful IDEN TEC SOLUTIONS technology delivers when others cannot.

IDEN TEC 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](http://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

### Performance

Response read/write range  
Broadcast read range  
Simultaneous identification  
Compatibility

Up to 250 m (800 feet) @ free air\*  
Up to 500 m (1600 ft) @ free air\*  
Up to 2000 tags  
all i-Q350 tags

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

### Communication

Frequency  
Certification

868 MHz (EU), 919/920/921 MHz (NA)  
EN 300 220 (EU), FCC Part 15 (US),  
Industry Canada

Response communication rate  
Number of antennas  
Antenna connection  
Transmit power

19,200 – 115,200 kbits/s  
1  
SMA  
≤ 10 mW/+10 dBm, depending on national regulations, software adjustable  
16 Bit CRC  
-100 dBm / depending on data rate

Transmission safeguard  
Sensitivity

### Interfaces

Data interface master/host

i-BUS (RS422), Ethernet or WLAN (IEEE 802.11b)

Data interface slave  
Status display

i-BUS (RS422); for cascading additional i-PORT M 350  
4 LEDs (UHF, RUN, BUS, ERR)

WLAN Security  
WEP  
WPA/WPA2/802.11i  
Enterprise mode (

64/128-bit encryption (RC4)  
128-bit TKIP/CCMP (AES) encryption  
802.1X): LEAP (WEP only), PEAP, TTLS, TLS;EAP-FAST,  
GTC, MD5, OTP, PAP, CHAP, MSCHAP, MSCHAPv2,  
TTLS-MSCHAPv2  
Pre-shared key mode (PSK/Personal)

### Electrical

Power source  
Input power  
Standards / Security

10 – 30 VDC  
< 1 W with RS422, < 2 W with Ethernet/WLAN  
CE, EN 300 220

### Environmental

Operating temperature  
Storage temperature  
Humidity

-30 °C to +70 °C (-22 °F to +158 °F)  
-40 °C to +80 °C (-40 °F to +176 °F)  
90 % non-condensing

### Physical

Dimensions  
Case material  
Weight  
Package rating

97 × 67 × 97 mm; (3.8 × 2.6 × 3.8 in.)  
153 × 67 × 97 mm; incl. cover (6.0 × 2.6 × 3.8 in.)  
Plastic  
150 g  
IP40, IP64 with plastic cover

## CONTACT US

**EUROPE**  
+43 5577 87387-0  
[sales@identecsolutions.com](mailto:sales@identecsolutions.com)

**NORTH AMERICA**  
1-866-402-4211 (toll free)  
[sales@identecsolutions.com](mailto:sales@identecsolutions.com)

**HEAD OFFICE**  
IDEN TEC SOLUTIONS AG  
Millennium Park 2  
6890 Lustenau  
Austria  
Tel. +43 5577 87387 0  
Fax +49 5577 87387 15

**GERMANY**  
IDEN TEC SOLUTIONS  
DEUTSCHLAND GMBH  
Hertzstrasse 10  
69469 Weinheim  
Germany  
Tel.: +49 (0)6201 9957-0  
Fax: +49 (0)6201 9957-99

**USA**  
IDEN TEC SOLUTIONS, INC.  
Liberty Plaza II, Suite 375  
5057 Keller Springs Rd,  
Addison, Texas 75001  
USA  
Tel: (972) 535 4144  
Fax: (469) 424-0404

**NORWAY**  
IDEN TEC SOLUTIONS AS  
Kartheia 3  
4626 Kristiansand  
Norway  
Tel. +47 38 00 35 30  
Fax +47 38 00 35 31

**AUSTRALIA**  
IDEN TEC SOLUTIONS  
AUSTRALIA AND NEW  
ZEALAND P/L  
Riverview Business Park 72  
Maribyrnong St, Footscray,  
3011 Australia  
Tel. +61 3 9396 8900