

Fixed UHF Interrogator

i-PORT III

The i-PORT III is the next generation of IDENDEC SOLUTIONS' Intelligent Long Range® (ILR®) interrogator. ILR® provides highly accurate, real-time data collection in wireless applications such as:



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

Using advanced UHF radio frequency technology, the i-PORT III transmits and receives data at distances of up to 6 meters (20 feet) from an i-D tag or up to 100 meters (300 feet) from an i-Q tag. A unique feature of our tags is a highly sophisticated anti-collision handling algorithm that allows simultaneous communication with hundreds of tags within the interrogator's read zone. The i-PORT III allows the seamless integration of i-Q and i-D tag information to a host computer system. The result is real-time information, where and when it is needed.

The i-PORT III listens with all four antennas concurrently—the tag's signal is received by all antennas at exactly the same time. This extraordinary feature allows fast and reliable identification of tags. Additionally, the built-in signal strength measurement capability enables the localization of tags using triangulation. An internal real-time clock provides accurate time stamps for data captured from the tags. A maximum of 2,000 messages can be stored on the i-PORT III to prevent data loss. The feature-rich i-PORT III, combined with other ILR® system components, offers a leading-edge wireless, automated data collection tool that is easily integrated into a wide variety of applications.

Features Benefits

Multi-tag compatibility	Provides interrogation for both i-D tags and i-Q tags to meet various tracking needs.
Concurrent antenna processing	Receives tag responses simultaneously on all 4 antennas for improved RF communication reliability.
Additional transmission antenna	Provides wide range detection capability for tags moving at high-speeds and for special tag localization tasks.
Concurrent signal strength measurement	Measures signal strength simultaneously on all 4 antennas to triangulate tag position.
Adjustable output power	Allows tuning of read/write zone from a few centimeters up to 100 meters (i-Q tag).
100-tags/sec. identification rate	Provides reliable identification of fast-moving objects.
2000-tag simultaneous identification	Provides high-speed data collection to facilitate warehousing and inventory-based applications.
Real-time operating system (RTOS)	Meets industrial requirements for reliability and robustness.
Ethernet interface	Integrates easily into existing infrastructures.
Serial interface	Expands to include external devices, e.g. GSM, GPS, modem, etc.
4 digital inputs	Synchronizes processes using light beams, switches and inductive loops to provide event-driven RFID data capture.
4 relay outputs	Automates external process control using RFID-triggered horns, signal lights, and barriers.
SNMP remote management	Provides remote management of hardware and software from a centralized location. Configuration and settings can be maintained via a web interface.
Remote diagnostic and configuration	Monitors equipment remotely for fast troubleshooting response time to minimize equipment down -time.

IDENTEC SOLUTIONS

IDENTEC SOLUTIONS provides innovative data-gathering solutions to reduce losses and increase profitability. Our technology is the next generation of long-range active RFID—we call it Intelligent Long Range® (ILR®).

Our product line offers a data collection solution that is wireless, automated, real-time and affordable. The benefits of using our technology include ease-of-use, seamless software integration with ODBC-based applications, scalable infrastructure and inexpensive hardware. With ILR®, the technology becomes transparent and your assets become visible—they're able to report their whereabouts and identity—without human intervention and technical complications.

With ILR®, RFID technology is now simple and affordable.

To learn more about how ILR® technology can increase profitability for your business, contact IDENTEC SOLUTIONS or visit our website

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Contents subject to change without notice.

Technical Specifications

Compatibility

ILR® i-Q tags and ILR® i-D tags

Performance

Read range (adjustable)
Write range (adjustable)
Max. response time
Read rate – ID only
Read rate – 128 bit data
Multiple tag handling

i-Q Tags

100 m (300 ft)
100 m (300 ft)
< 150 msec
100 tags/sec
35 tags/sec
Up to 2,000 tags in the read zone

i-D Tags

6 m (20 ft)
6 m (20 ft)
< 10 msec
100 tags/sec
35 tags/sec
Up to 2,000 tags in the read zone

Communication

Frequency
Certification

868 MHz (EC) or 915 MHz (NA) ISM Band
EN 300 220 (EC), FCC part 15 (US),
Industry Canada

Number of antennas
Number of transmitters
Output power
Number of receivers
Sensitivity
Antenna control

5
5
Up to 23 dBm, digitally controlled
4
Up to -85 dBm, digitally controlled
Concurrent processing

CPU

Operating system
Program memory
Data memory
Configuration memory
Time base

RTOS (Real Time Operating System)
2 MB Flash; 8 MB DRAM
128 KB SRAM
8 KB EEPROM
Real Time Clock (RTC) with battery-backup

User Interfaces

Ethernet interface
Optional
Network protocol
Serial interface
Number of control inputs
Number of control outputs
Number of status indications

10 Mbit/s / 100 Mbit/s
External 802.11 wireless LAN module
TCP/IP, FTP, Telnet, HTTP, SNMP, PPP
RS 232 / 1.2 to 115.2 kbit/s
4 digital inputs
4 relay outputs
19 LEDs

Electrical

Power supply
Power consumption
Safety

10 V DC to 30 V DC
7.5 W maximum
CE

Environmental

Operating temperature
Optional extended temperature range
Storage temperature
Humidity

0°C to +50°C (+32°F to +122°F)
-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
Mass
Enclosure rating

211 mm x 190 mm x 58 mm
(8.3 in. x 7.5 in. x 2.3 in.)
Anodized aluminum
2.0 kg (4.4 lbs)
IP 64 — Protected against dust and low-pressure jets of water / NEMA4

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