

Intermec's expertise in real world RFID implementations, combined with its knowledge about building rugged hardware is reflected in its diverse offering of RFID products and services.

The cornerstone of a highly functional Gen 2 RFID system is the reader, and not just one type of reader. Supply chain applications demand multiple form factors so that the product being read doesn't always have to be brought to the reader. Intermec offers Gen 2 handheld (IP4), vehicle mounted (IV7), fixed serial (IF4) and fixed network (IF5) readers. The IF4, IF5 and IV7 readers are built on the Intermec IM5 reader module, recently EPCglobal Hardware Certified for 869 and 915 frequencies.

With the PM4i RFID printer, companies can create Gen 2 RFID smart labels to drive RFID applications without host reprogramming. By using frequency agile Gen 2 RFID tags, currently available in 4 in x 6 in (10.2 cm x 15.2 cm) and 3 in x 4 in (7.6 cm x 10.2 cm) sizes with short and cross dipole antenna patterns, the PM4i can simultaneously encode and print labels that can be used worldwide, thus enabling the tag to be read via multiple frequencies, dependant on regional standards. The PM4i also utilizes the EPCglobal Hardware Certified IM5 reader module.

The Intermec RFIDDeploySM Services Team, a specialized group of experts designed specifically to help companies evaluate, install and maintain RFID systems, facilitates a phased approach to RFID implementation so that there is no room for error or waste, leading to a faster return on investment.

Intermec RFID systems have been at work around the world helping make companies more efficient and effective since 1997. When you choose Intermec, a standards-based technology leader with a proven track record, offering the broadest Gen 2 tag and reader selection along with RFIDDeploy Service and an experienced partner community, there isn't a smarter choice.



INTERMEC® Gen 2

The Most Complete Hardware, Media, and Service Products for RFID.



- **Products built on EPCglobal Hardware Certified reader module**
- **Capable of operation at multiple communications frequencies, required for global implementations**
- **Engineered for seamless migration to emerging global RFID standards**
- **Interoperable tags can be read by multiple manufacturers' readers**
- **Compliant to both FCC Part 15 and ETSI radio standards**
- **RFIDDeploy Services leave no room for error or waste**
- **Investment protection inherent in products that meet a recognized standard**

The EPC Generation 2 (Gen 2) standard for RFID (radio frequency identification) created a foundation on which companies can now build a truly global, open loop supply chain, an inevitable destination in today's global economy. For smart companies, Gen 2 is the ultimate RFID destination in order to gain multi-frequency, interoperable solutions required by the global supply chain. Intermec has the products and technology services to get you there, regardless of your starting point on the RFID continuum.

Intermec Technologies, the first company in the industry to demonstrate working Gen 2 products, offers the most complete hardware, media and service products for EPC Gen 2 compliant installations desiring a best-in-class inventory management, logistics and retail operations solution.

Intermec Gen 2 RFID technology dramatically increases system performance and provides levels of reliability and functionality not found in older UHF RFID technologies. More importantly, it offers the functions and features most requested by companies implementing RFID:

- Reliable read/write RFID tags with unlimited read-write capabilities for maximum system flexibility and utility
- "Frequency hopping" to maximize read ranges needed in typical supply chain operations
- FCC Part 15 operation to avoid the need for a separate FCC site license for each U.S.-deployed reader
- Operation under new, higher-power European frequency requirements, ensuring the highest possible performance
- Tag "persistence," which dramatically improves tag read reliability in the field
- High tag detection reliability for extremely high read rates
- Reliable and verifiable write operations
- Operation of many readers in close proximity using the "dense reader mode"
- EPCglobal Certification

These are the technical capabilities that allow companies to gain the true business benefits of RFID.

Intermec
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In a continuing effort to improve our products, Intermec Technologies Corporation reserves the right to change specifications and features without prior notice.

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INTERMEC® GENERATION 2 (GEN 2) SOLUTION

IF4



The Intellitag® IF4 Serial Reader, available in 865, 869, and 915 MHz bands, is a rugged RFID reader appropriate for use in indoor industrial environments.

Form Factor: Fixed
Antennas from: \$130 each
No. of Antennas supported: 4
Frequency Band: UHF
Protocols Supported: EPC Class 1; ISO 18000-6B; ANSI INCITS 256-2001
Firmware upgrade to Gen 2:** Yes
Contains module that is EPC Gen 2 Certified: Yes
Accepts Remote Upgrades: Yes
No. of Input/Output Ports: 4 In; 4 Out
Runs Applications: No
Communications Ports: Serial

IF5



The IF5 Intellitag fixed reader is an intelligent RFID reader that can be factory configured to operate in RFID frequency bands: 869MHz or 915MHz. In addition to performing both read and write functions, the IF5 is also capable of running custom applications to filter information from tags, as well as monitor external sensors and control audible and visual indicators.

Form Factor: Fixed
Antennas from: \$130 each
No. of Antennas supported: 4
Frequency Band: UHF
Protocols Supported: EPC Class 1; ISO 18000-6B; ANSI INCITS 256-2001
Firmware upgrade to Gen 2:** Yes
Contains module that is EPC Gen 2 Certified: Yes
Accepts Remote Upgrades: Yes
No. of Input/Output Ports: 4 In; 4 Out
Runs Applications: Yes
Communications Ports: Ethernet, Serial, Wi-Fi

IV7



The IV7 is a rugged RFID tag reader designed to be mounted on a vehicle for mobile use and operation in the same harsh environment as the CV60 vehicle mount computer.

Antennas from: \$13 each
No. of Antennas supported: 4
Frequency Band: UHF
Protocols Supported: EPC Class 1; ISO 18000-6B; ANSI INCITS 256-2001
Firmware upgrade to Gen 2:** Yes
Contains module that is EPC Gen 2 Certified: Yes
Accepts Remote Upgrades: Yes
No. of Input/Output Ports: 4 In; 4 Out
Runs Applications: Yes
Communications Ports: Bluetooth, Serial

Note: The EPCglobal Hardware Certification Marks are specific to Intermec's 915 MHz and 865 MHz IM5 RFID reader modules, which are used in Intermec's IF4, IF5, IV7 readers and PM4i printer.



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** Some models may require a hardware upgrade to support Gen 2 dense-reader mode.

INTERMEC® GENERATION 2 (GEN 2) SOLUTION

IP4



The IP4 Intellitag reader handle is a snap-on, high-impact plastic and magnesium trigger handle accessory that adds the capability to read and to write to RFID tags to all Intermec® 700 Series Color Mobile Computers.

Antennas from: N/A
No. of Antennas supported: 1 (internal)
Frequency Band: UHF
Protocols Supported: EPC Class 1; ISO 18000-6B; ANSI INCITS 256-2001
Firmware upgrade to Gen 2:** Yes
Contains module that is EPC Gen 2 Certified: No
Accepts Remote Upgrades: Yes
No. of Input/Output Ports: N/A
Runs Applications: Yes
Communications Ports: WLAN

PM4i



By using frequency agile RFID tags, the Intellitag PM4i RFID printer can simultaneously encode and print labels that can be used worldwide, thus enabling the tag to be read via multiple frequencies, dependant on regional standards.

Antennas from: N/A
No. of Antennas supported: 1
Frequency Band: UHF
Protocols Supported: EPC Class 1; ISO 18000-6B; ANSI INCITS 256-2001
Firmware upgrade to Gen 2:** Yes
Contains module that is EPC Gen 2 Certified: Yes
Accepts Remote Upgrades: Yes
No. of Input/Output Ports: N/A
Runs Applications: Yes
Communications Ports: WLAN, LAN, Serial, Parallel, Industrial, USB

Short Dipole Label



Sizes: 4" x 3"
Frequency Band: 868 or 915 MHz
Air Interface: EPC Generation 2
Memory: 96 Bit
Physical Properties: Thermal Transfer Film

Cross Dipole Label



Sizes: 4" x 6"
Frequency Band: 868 or 915 MHz
Air Interface: EPC Generation 2
Memory: 96 Bit
Physical Properties: Thermal Transfer Film



Intermec's RFIDDeploySM Services help customers accurately evaluate RFID technology and integrate it into their business processes. RFIDDeploy services include process analysis, to validate RFID business plans against actual and proposed processes; site analysis, to verify that a company's proposed physical environment can effectively accommodate the technology; and site installation, to place and test designated RFID devices for optimal performance.

