

# RFID News Roundup

Atmel, Innovision make smallest RFID reader; research group considers tags to track mags; Genestra releases reader for Intermec 700 Series; InkSure RF announces patents; Weber releases smart label software.

June 3, 2005—The following are news announcements made during the week of May 30.

## **Atmel, Innovision Make Smallest**

Atmel, a San Jose, Calif.-based semiconductor company, and Innovision Research & Technology, a United Kingdom-based RFID hardware developer, have announced what they call the world's smallest RFID single chip reader, the AT90RF135602. This device reads and writes to industry-standard 13.56 MHz RFID tags and smart labels. The tag reader module measures 12mm by 12mm by 2mm and is designed for insertion into small handheld devices (a smaller version, without the components needed to interface with an antenna, is available at 6mm by 8mm by 1.5mm). The reader was developed by Innovision and uses an Atmel 8 MHz RISC processor with 16 kilobytes of flash memory. It is optimized for 2.8-volt battery operation and is field programmable and upgradeable. The reader is compliant to ISO/IEC 14443-A, parts 2 and 3. It can be used to read Philips MIFARE Ultralight tags, as well as Innovision's Jewel RFID tag, which is endorsed by the Integrated Transport Smartcard Organization and used in mass-transit ticketing applications. Samples of the reader without the antenna interface are available now, with volume production slated for Q3 2005. Pricing for the reader is \$3 per unit in quantities of 10,000.

## **Research Group Considers Tags to Track Mags**

Mediamark Research Inc. (MRI), a New York City-based provider of magazine audience and multimedia research data, has signed an agreement with TagSense, a Cambridge, Mass.-based technology development company, to test radio frequency identification as a means of measuring magazine readership. Per the agreement, TagSense will research and experiment with different types of RFID tags and reader systems for tracking magazine readership. It will then present its findings to MRI in the coming six to eight months. Within 18 months, MRI hopes to field-test RFID applications with some of its media clients. In one possible application, magazines read in public places, such as doctors' offices or train stations, would be tagged and their movements tracked to determine how long each magazine, and possibly each individual page, is read. This data would be valuable to advertisers and magazine publishers. Currently, MRI attains readership data by conducting 26,000 phone interviews with magazine readers each year. Unlike television, the Internet and broadcast radio, there are no automated methods of measuring print media audiences. MRI says it is not sure whether tracking magazine readership is a viable application for RFID. However, it has entered into this partnership with TagSense to explore the possibility of providing an automated means of measuring magazine readership. If it succeeds, MRI will enjoy a competitive advantage over other magazine measurement research firms. The firm says it would rely on magazine publishers and distributors to bear the costs of deploying the hardware components of any RFID system. TagSense has developed, or is developing, a number of different RFID tag designs and ink-based technologies, including chipless RFID tags (which use electromagnetic materials to store information rather than microchips), printed RFID tags and multiplexed antenna arrays.

## **Genesta Releases Reader for Intermec 700 Series**

RFID systems integrator Genesta has released the Intrepid multiprotocol handheld reader, based on Intermec's

IP3 handheld reader. Genesta, an OEM partner of Intermec, has made the Intrepid capable of reading EPC Gen 1 Class 0, Class 0+ and Class 1 tags. (Intermec's IP3 is not a multiprotocol reader.) The Intrepid was designed to provide RFID users awaiting wide availability of Gen 2 products to begin applying and reading Gen 1 tags now. The Intrepid's firmware can be upgraded so that the device will be able to read Gen 2 tags. The Intrepid reader is built into a handle that attaches to Intermec's 700 Series of color handheld computers. The Genesta Intrepid Kit includes the handle-reader and Intermec 700 Series mobile computer and costs \$5,295. For customers who already have a 700 Series or want to purchase the computer separately, the handle-reader is \$2,850. Both configurations are available immediately.

### **InkSure RF Announces Patents**

InkSure Technologies, a Ft. Lauderdale, Fla.-based provider of covert machine-readable security anticounterfeiting solutions, has announced that its InkSure RF subsidiary has been awarded two U.S. patents related to its development of chipless RFID tags, which do not use a silicon microchip and are significantly less expensive to produce than silicon-based tags. InkSure will not disclose the frequency at which its chipless tags operate, but does say they have a 20- to 24-inch read range. The first of the two patents, entitled "Chipless RF Tags," was awarded late last year and describes a number of materials and assembly techniques used in the production of InkSure's tags, which are printed using conductive polymers and other materials. The second patent, which addresses how InkSure tags are read, was recently awarded. According to James Assaf, CEO of U.S. operations (InkSure also operates a research and development park in Israel), the company hopes to have its chipless tags and readers available within the year. A number of other companies have announced chipless RFID products in the past two years, including CrossID (see [Firewall Protection for Paper Documents](#)) and Tapemark (see [RFID Fibers for Secure Applications](#)). Unlike some chipless tags that use microscopic fibers, multiple InkSure tags can be read simultaneously. InkSure says its contactless chips could be used in anticounterfeiting platforms for documents or to track and trace consumer packaged goods.

### **Weber Releases Software**

Weber Marking Systems, a labeling systems developer based in Arlington Heights, Ill., has announced the availability of its Legitronic 3.5.0 label design software, which supports the encoding of EPC-compatible smart labels to meet EPC Class 1, Class 0, Class 0+ and emerging Gen 2 specifications. The software includes editing, formatting, printing and RFID encoding tools and is designed for a high-speed, 32-bit operating system (Windows 98 SE, NT, 2000 or XP). The software can pull label data from various database, word processing and graphic-design programs, eliminating the need to maintain a separate database for label information. Its remote input capabilities permit direct input from other devices, such as electronic scales, so that a product's weight can be automatically printed and encoded on the label, and programmable logic controllers (PLCs), which can be used to control conveyor systems for moving cases through a label applicator. Labels can be created from a selection of built-in features, including numerous bar code symbologies. Secure Series, a special version of the Legitronic software, is also available and includes a new security administrator function to help meet the requirements of FDA 21 CFR Part 11, a compliance standard regarding the recording and retention of secure label information and electronic signatures. Legitronic software is compatible with thermal-transfer, direct-thermal and laser label printers and RFID printer-encoders, as well as with standard Windows-based printers. It can be deployed over a network and includes a security feature that restricts use and protects information. Pricing information has not been released.