RFID News Roundup

Topics/Verticals: RFID Channel

William Frick & Co. announces three new rugged tags for oil and gas; French government funds five RFID projects; Czech tag maker intros UHF label for metal; MTI Wireless Edge announces new small UHF circular outdoor antenna; Cupertino, Calif., schools to try RFID to encourage walking, biking; TowerJazz licenses Kilopass' one-time programmable nonvolatile memory IP.

July 22, 2010—The following are news announcements made during the past week.

William Frick & Co. Announces Three New Rugged Tags for Oil And Gas
William Frick & Co. is offering three new ultrahigh-frequency (UHF) EPC Gen 2 passive RFID tags for heavy industries, including oil and gas, mining and manufacturing, based on the company's rugged tags, manufactured by Technologies ROI (TROI) but with new form factors that make them easier to attach. The Oil and Gas RFID Solution Group, a consortium composed of technology vendors, academia, oil and gas companies, and industry experts (see Oil & Gas RFID Group Focuses on Live Lab, Middle East), tested the tags over the course of 24 months, in real-word testing conducted by the group's oil-producer members. As a result, the group is displaying its logo on the tags, indicating it considers them to be tags of choice for that industry. One tag can be welded onto an item, while the other two are made of rubber and attach with a nylon-coated cable composed of braided steel. The tags, according to Frick, have been tested by the top-five oil-producing companies over the past two years. All three were shown to be virtually indestructible, based on tests conducted by end users, as well as those carried out by Frick and TROI. The WoW Tag is a weldable tag encased in steel (see Armored-RFID Tag Loves to Get Hammered). The FRAC tag is encased in vulcanized rubber to protect it from harsh environments, and is also impact-resistant, having proven itself to remain undamaged when struck by a sledgehammer. It can be attached to items via a nylon-coated 5/16-inch-thick cable made of braided stainless steel, the ends of which are precrimped and slide together to lock the tag. And the Sling/Hang tag is the same form factor as the FRAC tag, but uses the braided attachment cable as a loop to fasten it through chain links or other small openings. The FRAC tag also comes with an aluminum plate, on which users could etch a 2-D bar code, serial number or logo. Tag cost is based on the volume sold.

French Government Funds Five RFID Projects
As part of its efforts to support the development of innovative contactless services, with the aim of accelerating their use, the French government has selected 12 projects that implement RFID technologies, including seven supporting Near Field Communications (NFC). The government will fund the projects as part of the initiative known as Innovation in the Processes of Companies by the Use of RFID—Mobile Contactless Services (IPER-SMSC). The French government established the CNRFID project in July 2008, to encourage networking and solutions deployment partnerships between providers, users, research laboratories and institutions, and to support them in their different needs and interests. The French Ministry of Industry will fund the projects. The BARFID project, managed by Systerel , will track railroad transport vehicles via barriers equipped with RFID technology. The system will be used to verify the presence of a train, optimize the management of equipment, facilitate maintenance and improve security. The Intelligent Data Center project, managed by Noolitic, proposes a solution for

more efficiently managing energy consumed by data centers, by using automated measurements of temperatures and energy consumption. The IRÈNE project, managed by Jidelec, will leverage radio frequency identification to identify equipment in the field during industrial maintenance, particularly along an aeronautical assembly line. The ONCO Trace project, managed by Créative Eurecom, will work on conceiving and developing an RFID system to track and trace injectable anti-cancer chemotherapies from pharmaceutical production until administration to a patient (at home or in an institution). And the Trace It All project, managed by Sophia Conseil, will develop an RFID-enabled solution to follow the life cycle of a system with electronic circuit boards—in particular, to improve the traceability of the development of and components of circuit boards, in order to optimize time of cycle, as well as improve the operations of inventory. The French Ministry of Industry has also announced a new call for IPER-SMSC projects in 2011.

Czech Tag Maker Intros UHF Label For Metal

Ing. Libor Hofmann, an RFID tag manufacturer based in Brno, in the Czech Republic, has introduced an EPC Gen 2 RFID label designed for use on metal. The label, known as the H86-WL-Fe, operates at a frequency of 860 to 960 MHz and has 240 bits of nonvolatile memory. Currently, the tag is built with Impinj 's Monza 3 chip, but the company is now developing a label with the Monza 4 model. Monza 4 chips offer greater memory and more innovative privacy features, Impinj reports (see Impinj Launches New High-Performance RFID Chips). The H86-WL-Fe is made of PVC with an adhesive backing, measures 152 millimeters by 8 millimeters by 1.1 millimeters (6 inches by 0.3 inch by 0.04 inch) and can operate within a temperature range of -15 degree to +65 degrees Celsius (5 to 149 degrees Fahrenheit). According to the company, the tag has a range of uses for asset management, including the tracking of air cylinders and electronic devices; the label's thin dimensions, the firm notes, make it an ideal choice for many applications.

MTI Wireless Edge Announces New Small UHF Circular Outdoor Antenna

MTI Wireless Edge Ltd., an Israeli manufacturer of antennas and antenna systems, including versions for RFID applications, has announced a new ultrahigh-frequency (UHF) antenna model, available now in two versions. The two compact 1.5 dBic (referring to electrical strength) wideband antennas operate at 865 to 956 MHz, have a small form factor of 95 millimeters by 95 millimeters (3.7 inches by 3.7 inches), and feature an IP67 sealing (which protects them from dust and water damage) for outdoor use. The models differ in their mounting options, and complement MTI Wireless' existing portfolio of UHF wideband antennas that come in the 3 dBic to 11 dBic range. "MTI is constantly increasing its RFID portfolio, and is committed to continue leading the RFID antenna market," said Dov Feiner, the firm's CEO, in a prepared statement, "and the new high-performance, high-quality antennas increase our portfolio further more."

Cupertino, Calif., Schools to Try RFID to Encourage Walking, Biking

The Cupertino Public Safety Commission plans to test an RFID-based system created by Boltage to track the number of students who walk and bike to school. The system will help officials monitor students at two schools—Lincoln Elementary School and Kennedy Middle School—with the goal of reducing the number of cars on the road. The system is based on the Zap application, which employs

RFID technology originally developed by a company called Freiker (short for FREquent bIKER). Freiker has since changed hands, and is now known as Boltage (see RFID System Tracks Trips, Fringe Benefits, for Bike Commuters). Zap employs passive ultrahigh-frequency (UHF) tags complying with the EPC Gen 2/ISO 18000-6c standard. Students are issued EPC Gen 2 passive RFID tags that can be attached to bike helmets or back packs. Upon entering and leaving the school campus, a student carrying the tag passes under a reading station, where a solar-powered RFID interrogator collects the unique ID encoded to his or her tag, and emits audio and visual signals to let that student know the tag has been read. Back-end software maintains a database containing the date and time of all tag reads—earning the student points that they can then redeem for prizes. Boltage also provides reports and data that can be utilized to measure the number of children walking to school, as well as help create an incentive program for students and classrooms.

TowerJazz Licenses Kilopass' One-Time Programmable Nonvolatile Memory IP

Specialty foundry TowerJazz, headquartered in Israel, has inked a deal to license Santa Clara, Calif.-based Kilopass Technology's one-time programmable (OTP) memory intellectual property (IP) for its 0.13µm CMOS process. OTP devices can store data even during power shutdown. The information is programmed during production and stored forever, the two companies report; OTP devices are frequently used in video game consoles, mobile phones, RFID tags, implantable medical devices, high-definition multimedia interfaces (HDMI) and many other consumer and automotive electronics products. Kilopass' XPM OTP technology is built using standard, commercially available CMOS logic-process technologies, the companies indicate, and is silicon-proven to deliver high-density, high-performance and highly reliable, electrically field-programmable embedded NVM solutions at a low cost. Kilopass leverages antifuse technology, which is used to permanently program integrated circuits (ICs) in a standard CMOS process without extra mask steps. Antifuse technology provides a high degree of physical security for the permanent storage of sensitive information, the firm explains, thereby making it ideal for design IP protection. Earlier this year, TowerJazz partnered with tag maker Tego, which manufactures the TegoTag, a passive RFID tag with 32 kilobytes of memory—far more than current UHF EPC Gen 2 tags (see Tego Launches 32-Kilobyte EPC RFID Tag). Under the terms of the deal between Tego and TowerJazz, Tego is utilizing the 180nm process (TS18) from TowerJazz for its TegoChip, to tag more than 1,500 pressurized and non-pressurized parts and components on Airbus' A350 XWB aircraft fleet, in order to improve such processes as maintenance and warehouse logistics. In January of this year, Tego announced a contract with Airbus providing the first standards-compliant and fully passive RFID tags that enable access to the complete maintenance history of flyable parts (see Airbus Signs Contract for High-Memory RFID Tags). With regard to the Kilopass relationship, Ori Galzur, TowerJazz's VP, said in a prepared statement that Kilopass is "a proven leader in OTP IP and we are pleased to offer their solution to benefit our customers and enable them with the design advantages offered by this technology. In addition to using it for 0.13µm CMOS designs, we have the flexibility to transfer it to other advanced nodes. By offering Kilopass OTP, we continue to expand the world-class services we provide to our customers for the cost-effective manufacture of their differentiated products and this expands our addressable market by approximately $100 million."