

**Time Domain adds new products to RTLS platform; Rite Aid drug stores to accept RFID-enabled MasterCard PayPass; Motorola boosts RFID readers with upgrades, certifications; ThingMagic upgrades Mercury5 RFID readers and antennas; NFC and SD maker Wireless Dynamics intros rugged enclosure for handheld; RFID Global Solution, Franwell team up on RFID across industries.**

Sept. 11, 2008—The following are news announcements made during the past week.

### **Time Domain Adds New Products to RTLS Platform**

Real-time location systems (RTLS) provider [Time Domain Corp.](#) has introduced several new products to its ultra-wide band (UWB) PLUS 2.0 product line. Announced in June (see [Time Domain Enhances Its UWB Location System](#)), PLUS 2.0 is an upgrade to the company's RTLS platform, which consists of active UWB RFID tags, interrogators, ceiling-tile antennas, synchronization distribution panels and software. UWB tags emit a series of extremely short signals (billionths of a second or shorter), with each signal spanning a wide band of frequencies between 3.1 and 10.6 GHz. The new products include a thin active wearable UWB badge tag for RTLS applications, an externally powered original equipment manufacturer (OEM) tag and a small reader with a built-in antenna. The LED-enabled, thin Badge tag measures 6.8 millimeters (0.27 inch) thick, 75 millimeters (2.9 inches) long and 37 millimeters (1.5 inches) wide that can be affixed to a collar, shirt pocket, lanyard or belt. Users can verify their arrival and status at a location, or their interaction with another person or piece of equipment, with the touch of a button on the PLUS 2.0 Badge Tag, which offers a four-year battery life. The externally powered PLUS 2.0 OEM Tag can be integrated into a variety of products, has multiple transmission rates ranging from a few times per minute to a 100 times per second, and can use any available battery or other external power source for continuous long-life tracking. It is available as a printed circuit board, and with a housing. The PLUS 2.0 Small Form Reader/Antenna, which measures 12 inches by 12 inches, can be mounted on multiple surfaces in an indoor facility, such as on I-beams, poles and flat ceilings. It is available in omni-directional (circular) and 180-degree (semi-circular) coverage patterns, according to Time Domain, and can read thousands of PLUS tags per second through multiple walls.

### **Rite Aid Drug Stores to Accept RFID-enabled MasterCard PayPass**

Drugstore chain [Rite Aid Corp.](#) has announced it is now accepting MasterCard PayPass payments, in addition to traditional magnetic-stripe payment cards. The Tap & Go MasterCard PayPass card, which employs embedded passive 13.56 MHz RFID chips complying with the ISO 14443 standard to communicate a cardholder's payment information to payment terminals, will be accepted at 3,800 of Rite Aid's nearly 5,000 stores across the United States. Using the tap-and-go feature, customers will be able to pay for items by tapping a PayPass card or key fob on a PayPass reader at the store's checkout counter. For purchases of less than \$25, customers will not need to sign receipts. As of the second quarter of 2008, there are nearly 37 million MasterCard PayPass cards and fobs in use in 24 countries, with PayPass currently accepted globally at more than 122,000 merchant locations, according to MasterCard. Companies such as [PETCO Animal Supplies](#) (see [PETCO to Accept PayPass Contactless Payments](#)), [CVS](#) and [McDonald's](#) are already accepting MasterCard PayPass payments.

### **Motorola Boosts RFID Readers With Upgrades, Certifications**

[Motorola](#) has announced several new product enhancements and certifications, which the company claims will expand its RFID footprint globally. The new Motorola MC9090-G RFID handheld interrogator, available in mid-September for \$4,995, is compliant with current ETSI 302 208 standards required for operation in countries in the European Union. The reader is a multi-modal device that supports 1-D and 2-D bar-code scanning and EPC Gen 2 RFID, and is suited for a variety of retail, manufacturing, transportation and logistics applications, including shipping and receiving, work-in-process, item-level in-store inventory management and asset, baggage and cargo tracking. Motorola has also announced a global firmware upgrade that will install an LLRP (low-level reader protocol) interface to its XR family of fixed EPC Gen 2 RFID readers. LLRP is a specification for the network interface between an interrogator and its controlling software or hardware. The firmware upgrade, according to Motorola, will enable its XR family of products to "plug and play" into any preexisting RFID system. The interrogators will also now be compliant with the latest EU ETSI 302 208 standard, and the upgrade will provide extended read-write EPC Gen 2 memory support, with a maximum packet size of 512 bits. The firmware upgrade will be applicable to XR440, XR450 and XR480 fixed readers, and is expected to be available in October via a free download on the Motorola Web site. Finally, Motorola has reported that its RD5000 EPC Gen 2 mobile RFID reader is now certified for use in Malaysia, Thailand, Hong Kong and Singapore, and is expected to be certified for China and Taiwan by the end of this year. The RD5000 mobile reader—which provides proximity and motion sensors to extend battery life, and supports wireless LAN connectivity—is priced at \$4,995.

### **ThingMagic Upgrades Mercury5 RFID Readers and Antennas**

Cambridge, Mass.-based RFID reader supplier [ThingMagic](#) has released a firmware upgrade for its family of UHF EPC Gen 2 Mercury5 embedded RFID readers and antennas. The upgrade, which can be performed remotely, increases the device's RFID tag read rates via support of the EPC Gen 2 "Q" algorithm, designed to mitigate tag data collisions and reduce channel hop time. The upgrade includes support for custom commands to NXP G2XM and G2XL tags; set and reset "ReadProtect," for on-demand prevention of all communication with tags; electronic article surveillance (EAS) that enables and activates alarms for product theft prevention; and calibration functionality to aid in lab testing. It also includes support for the China Compulsory Certificate mark, commonly known as the CCC Mark, which is a safety mark required for many products sold on the Chinese market—including imported products—beginning in 2002.

### **NFC and SD Maker Wireless Dynamics Intros Rugged Enclosure For Handheld**

[Wireless Dynamics Inc.](#), a Canadian provider of near-field communications (NFC) and RFID Secure Digital (SD) products, has announced its OtterBox 1951 rugged enclosure for use with its SDiD family of SD card RFID interrogators and the Motorola MC35 handheld mobile computer. SD cards are flash (non-volatile) memory card format for use in such portable devices as handheld computers, PDAs and GPS receivers. The new enclosure has three layers of protection, a clear membrane that protects against scratching, dust and water intrusion; a second layer made of polycarbonate with a clear, scratch-resistant camera lens; and an outside layer that is a soft silicone skin to absorb bump and shock. The OtterBox 1951 Defender Case with Pod is compatible with the Motorola MC35 when used

with Wireless Dynamics' SDiD 1010, SDiD 1020, SDiD 1210 and SDiD 1212 RFID interrogators. The SDiD 1010 reader complies with the ISO 18092 NFC and ISO 14443A RFID standards, has a read range of 2 inches and is designed for contactless payment, advertising and promotional applications. The SDiD 1020 card is compliant with the ISO 15693 and ISO 14443A standards and offers a read range of up to 3.2 inches; it can be customized for industrial, enterprise and government applications. The SDiD 1210 is a low-frequency (LF) model compliant with the ISO 11784 and ISO 11785 standards for animal identification applications. It supports half-duplex LF RFID with a read range of 5 inches, full duplex LF RFID with a read range of up to 3.5 inches and both the 125 kHz and 134.2 kHz frequencies. The SDiD 1212 offers the same features as the SDiD 1210, but adds 512 megabytes of SD memory.

### **RFID Global Solution, Franwell Team Up on RFID Across Industries**

Two RFID providers—[RFID Global Solution](#) (RFIDGS) and [Franwell](#)—have joined forces to help drive active, passive and GPS-based RFID solutions for leading companies in the cold chain management, fresh foods, consumer product goods, aerospace and defense, manufacturing, life sciences and government sectors. RFIDGS, based in Mount Airy, Md., is a provider of wireless asset and personnel management systems that leverage active and passive RFID as well as GPS, cellular and camera-based technologies. Franwell, headquartered in Lakeland, Fla., is a consulting and systems integration firm specializing in RFID technology for supply chain operations, particularly those dealing with such environmentally sensitive products as fresh foods and pharmaceuticals. The two companies will work together, combining their services and products. These will include RFIDGS' SmartCart, a passive RFID-enabled cart for file and records management, and Franwell's RFID Commissioning (Shipping) and Compliance Cart Solution, a packaged solution designed to help companies implement a basic EPC Gen 2 system that incorporates a multi-protocol reader, an antenna, cables, 200 tags and mounting plates for the components. The partners will also leverage Franwell's contributions and participation in the RFID lab at the [University of Florida](#), as well as Franwell's own RFID laboratory at its headquarters.