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**Security Screenings at Academy Awards Feature RFID**

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Security personnel at the 74<sup>th</sup> Annual Academy Awards Ceremony used Texas Instruments' radio frequency identification (TI-RFid) technology to verify the identity of more than 9,000 stars, crew members, directors, media and other guests at 17 perimeter and interior

check-points and restricted access areas. As part of an overall security framework implemented by Security Solutions of Los Alamitos, CA, attendees and staff were required to wear an ID card, issued in advance of the event, which contained an TI-RFid smart label. The ID cards also had other embedded high technology features to facilitate visual screening and identification.

TI-RFid technology allowed security staff to verify the identity of people passing through checkpoints and determine who had access to various areas of the Kodak Theater. Five-foot tall kiosks, containing a computer monitor, RFID reader, and encased computer server, were placed in strategic locations. Within one half second of the card being read at the kiosks, security personnel had access to information about the card-holder, including a photograph, name, physical descriptors, security clearances, and the date and time the credentials were active. The monitors were carefully shielded from view so that personal information was protected, and computer equipment was locked within the kiosk.

In previous years, “gate crashers” and star struck fans have gone to extreme lengths to reproduce credentials with the hope of gaining entrance to the event. This year there was also grave concern that the event, which is broadcast live, could be the target of a terrorist attack. The RFID and embedded visual technology built into the ID cards made them impossible to counterfeit. As a consequence, not a single perimeter breach occurred during the Ceremony. The procedures implemented by Security Solutions, including Texas Instruments’ RFid, were successful in keeping gatecrashers out and the attendees and show crewmembers safe. Security personnel quickly made visual comparisons of the thousands of cardholders and photographs and could easily determine fake credentials, keeping the venue free from potential intruders.

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## **Prada Personalizing Customer Experience at New York Epicenter Store**

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TI-RFid Systems announced that its TI-RFid Tag-it™ smart label technology is being used at Prada's new Epicenter store in New York City. TI-RFid smart labels identify customers, merchandise, and link individual shoppers with information about their selections before and after they make a purchase.

TI-RFid tags and readers are implemented at numerous touchpoints throughout the Prada Epicenter store to identify products, devices and staff. The technology creates a seamless shopping experience designed to enhance customer relationships. Prada sales personnel are equipped with a wireless RFID handheld reader that gives them up-to-date access

to inventory and customer information stored in a centralized database. Sales personnel also use the device to read RFID-tagged products and identify staff wearing RFID 'clips.' The device also controls video screens throughout the store, which demonstrate products on the runway, show collection photographs and designer sketches, while providing more in-depth information about the color, cut, fabric and materials used to create Prada merchandise.

In the dressing rooms, RFID readers identify all merchandise a customer brings inside and displays information on the garment on the interactive video touch screen display. From the touch screen, customers can access product specifications as well as alternative and complementary items and accessories. Using RFID technology linked to customer information stored in a database, Prada ensures a high-quality customer experience across multiple sales associates and subsequent Epicenter locations.

"Prada is a spectacular example of a retailer delivering on new forms of customer interaction and CRM," said Tres Wiley, strategy manager for emerging markets, TI-RFid Systems. "The result of its work in enhancing the customer shopping experience is truly taking full advantage of several cutting-edge technologies." Among the many companies providing services for this implementation were KTP (UK) and IconNicholson (New York).



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## **3D Analog Front End LF Transceiver Available for Non-Automotive Applications**

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TI-RFid Systems is introducing its 3D Analog Front End (3DAFE) low-frequency transceiver IC for non-automotive applications, including cashless payment systems, asset tracking, access control and supply chain automation. The radio frequency chip is currently being designed into remote keyless entry, passive entry, and immobilizer systems by automotive manufacturers worldwide.

The 3DAFE provides cost, time, power and board space savings for engineers designing low-frequency RFID applications. The 3DAFE interfaces to three different antennas, ensuring that data signals are picked up regardless of the orientation of the identification device. The product features a user-programmable dual wake pattern detection, which helps engineers avoid more expensive design alternatives. The product has a wake up range of 2 to 3m. With a standby current of 5uA and less than 10mV peak-to-peak sensitivity, the 3DAFE provides a long battery life. The 3DAFE comes in an industry-standard, 16-pin TSSOP package. It has also been designed with on-chip antenna trimming using EEPROM controlled capacitor arrays to enable easier and more cost-effective production of printed circuit boards. The 3DAFE is designed to be integrated on a printed circuit board together with a separate microprocessor and UHF device.

For more information on the 3DAFE (part # TMS 37122), please call 1-888-937-6536 or view the TI-RFid Web site, [www.ti-rfid.com](http://www.ti-rfid.com).

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## **"Smart" Employee Access Enhances Production QA at Adam Opel**

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Adam Opel AG, a European automobile manufacturer, completed a successful pilot using TI-RFid technology to control and monitor employee access to production and manufacturing systems, and has announced plans to expand the solution to production and assembly facilities throughout Europe, beginning in 2004. In the pilot program, employees at two plants in Germany and Spain were issued TI-RFid key-ring transponders, which were used to gain access to nearly 1,400 weld timers, stud welding units, and welding computers. In the manufacture of automobiles, even slight modifications to the manufacturing process can affect production, product quality, and pricing. Opel sought TI-RFid technology to restrict the level of access to specific machines to reduce the number of input errors, to monitor and log information regarding changes to the system or process, and ultimately to protect sensitive process and system data.

Based on a hierarchy of 16 levels of access, technical, production, and maintenance staff authorized to modify sensitive manufacturing parameters were required to pass the RFID transponder over readers integrated into control panels of various production machines. If the transponder code was verified by the reader, users gained access to the machine and could enter and adjust data. TI-RFid transponders were ideal in this application because they are designed to withstand harsh



manufacturing environments, including dust, dirt, moisture, impact and extreme temperatures. The transponders also proved to be more flexible and user-friendly than other systems protected by key-operated switches or passwords.

Opel's access control and quality assurance system greatly reduces the possibility of operating errors based on improper use by unqualified employees. Additionally, in the event of any problems, a history log enables managers to determine which employee accessed the system, who made changes to the parameters, and when these adjustments were made. The customer-specific software and reader systems, developed by Sphinx Electronics, were easily integrated into the existing production equipment. Based on the success of the initial pilot, Opel plans to implement this safety system in all of its European manufacturing facilities, utilizing several thousand transponders and readers.

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## **Panama Implements Toll Collection System Using Tag-it Smart Labels**

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Travelers in Corridor Norte, Panama, are speeding through the tolls using cards containing TI-RFid HF-13.56Mhz Tag-it™ smart label inlays. With the system developed by Controles Electromecanicos S.A. de C.V., drivers passing through 46 collection booths can now pay fares using the new toll card. Cards can be purchased in advance, and users can add additional value to the card for continued use and receive discounts as a benefit of prepaying.

Panamanian highways do not have a standardized toll collection system. Toll

takers collect money and keep records manually, calling into question the reliability of the information. Officials needed a system that would enable automatic payment as well as the ability to collect information about the number and types of vehicles passing through the tolls. Toll cards integrated with Tag-it smart labels have reduced operating costs and minimized concerns about the reliability of collected data.

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## **TI-RFid Shuts Down Grey Market for Goldwin Sportswear**

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Giorgio Cocchiglia, president of Euro Link SRL, Italy, presented a case study at the Smart Labels USA 2002 Conference on March 21, 2002 in Cambridge, MA on how Goldwin Sportswear shut down a grey market for their branded products using TI-RFid Tag-it™ smart labels.

The RFID system was implemented by Euro Link to identify and track products shipped from Goldwin's factories in Beijing, China to the main European distribution center in Milan, Italy and on to retailers in each country. Tag-it smart labels, sewn into the clothing between the lining and company label, contain a unique serial number that individually identifies each item. The read/write functionality of the RFID tag also allows shipping information to be programmed on it. Products that were being sold by distributors outside their authorized geographic area could be quickly identified when scanned by the RFID system.

RFID technology also helped Goldwin decrease picking and repacking



time, eliminate shrinkage during shipping and reduce errors due to language differences.

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## Calendar of Events

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TI-RFid Systems will participate in the following upcoming shows and conferences:

**Agrishow 2002**

April 29- May 4, 2002  
Ribeirão Preto, São Paulo, Brazil

**2002 EDS Innovation Fair**

May 1-2, 2002  
Plano, TX USA

**IDENT 2002**

May 15-17, 2002  
Wiesbaden, Germany

**NRA Show 2002**

May 18-21, 2002  
Chicago, IL USA

**Tracking & Tracing Seminar  
Gelredome 2002**

May 5, 2002  
Arnhem, Netherlands

**Transponder Road Show**

May 6, 2002  
Munich, Germany

May 13, 2002  
Hamburg, Germany

**Retail Systems 2002**

May 25-27, 2002  
Chicago, IL USA

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## Editor's Comments

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eNEWS will be distributed via email on a frequent basis to keep you abreast of product and business highlights of Texas Instruments Radio Frequency Identification Systems.

I welcome your feedback to:  
[billallen@ti.com](mailto:billallen@ti.com).

*Rgds, Bill Allen, Editor*

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