

# RFID News Roundup

Report highlights RFID's potential in port and transportation security; American Banknote adding RFID to payment cards; on-chip temperature sensor for passive tags; how-to CD for RFID; Atmel boosts passport chip read speed.

July 7, 2006—The following are news announcements made during the week of July 3.

## **Report Highlights RFID's Potential in Port and Transportation Security**

Though cost and reliability are chief concerns, RFID and other sensor technologies are promising tools for increasing the safety of U.S. ports, and for protecting the United States and its economy from terrorist attacks, according to a new report from the [Public Policy Institute of California](#) (PPIC). The report says that for \$75 per trip, RFID technology could be used to track 3 million of the cargo containers received into U.S. ports each year. In addition, through location tracking, RFID could offer business benefits fewer lost boxes and improved supply chain management. The report points to savings estimates made by industry analysts ranging from \$1 billion to \$10 billion yearly, or \$26 billion over a 20-year period, "mostly from use of electronic manifests." The [296-page report](#) can be downloaded for free from the PPIC web site.

## **American Banknote Adding RFID to Payment Cards**

[RCD Technology](#), an RFID tag manufacturing startup based in Quakertown, Penn., says [American BankNote](#) will integrate RCD's patented RFID antenna and inlay fabrication process into its manufacturing capabilities. A manufacturer of credit and debit cards, access cards, prepaid cards and secure documents, American BankNote says it will initially market RFID-enabled payment cards to the South American market.

## **On-chip Temperature Sensor for Passive Tags**

[Gentag](#), a Washington, D.C., IP development firm, says it has designed, patented and successfully tested a temperature sensor circuit that can be directly integrated into a chip used in either an EPC Gen 2 UHF (915 MHz) or HF (13.56 MHz) passive RFID inlay. The company says the sensor would add very little cost to the tags, thanks to the use of a single (as opposed to dual) temperature calibration technique during manufacture. Temperature sensors have been successfully integrated into both active and battery-assisted passive tags, but tags made with the Gentag technology would be the first fully passive tags to incorporate temperature sensors, according to the company. Gentag says it is currently in discussions with a number of passive tag makers to bring the technology to market. Temperature-tracking passive tags could be used in a wide range of applications, from tracking perishable foods and pharmaceuticals to monitoring the temperature variations of industrial products or munitions.

## **How-To CD for RFID**

[Abhisam](#), a Miami-based provider of technical education media, is offering an RFID instructional CD via its [web site](#). The disk runs on PCs utilizing a Windows 98, 2000 or XP operation system and contains six chapters of information, with animated graphics covering basic RFID concepts; the physics behind the technology; and RFID systems architecture, middleware, standards, applications, and security and privacy issues. According to Abhisam, the instructional CD is vendor-neutral and, because all of the information is on the disk, no Internet connection is required. The disk also includes a self-assessment test, designed to help students track and evaluate their learning. The CD costs \$399 and is available now.

### **Atmel Boosts Passport Chip Read Speed**

Chipmaker Atmel reports that RFID tags designed for use in passports and made with Atmel's AT90SC12872RCFT chip have achieved read rates of 2 seconds or less in an independent e-passport reader test. The dual-interface contact (ISO 7816) and contactless (ISO/IEC 14443) smart-card chip complies with the new International Civil Aviation Organization (ICAO) specifications for e-passports. The AT90SC12872RCFT has 72 kilobytes of EEPROM memory, 128 kilobytes of ROM program memory and 5 kilobytes of RAM. It supports security protocols through a power-analysis attack-resistant DES/TripleDES engine, as well as Atmel's new AdvX crypto accelerator, designed for an optimized performance and power consumption. A purported 2-second read rate is up to 10 times faster than other existing solutions. Atmel says samples of the AT90SC12872RCFT chip are available now under NDA and security approval.

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