

EPCglobal US Conference News

STMicroelectronics unveils Gen 2 chip; PSC releases handheld with new Sirit reader; Accu-Sort releases RFID software; SAP certifies Acsis' DataLink Integration; SAMSys offers Gen 2 Starter Kit; ConnecTerra releases Enterprise Server; UPM Rafsec Gen 2 OneTenna inlay available; Avery Dennison starts Gen 2 tag production.

Sept. 14, 2005—The following are some of the news announcements made during this week's EPCglobal U.S. Conference in Atlanta.

STMicroelectronics Unveils Gen 2 Chip

Chipmaker STMicroelectronics, based in Geneva, Switzerland, announced it has developed the XRAG2 chip for use in EPC UHF Class 1 Gen 2 RFID tags. The company has begun shipping samples of the chips to major partners, it says, and will make samples more widely available within the next few weeks. Production quantities of the chips, expected by December, will cost \$0.07 each for 100,000 units. Once the XRAG2 is in full production, the company reportedly plans to ship several million chips each quarter. The product can be ordered in unprocessed wafers, or as wafers that have been bumped (fitted with metal pads for attachment to an antenna) and sawn, or scored. The XRAG2 can execute all of the functions and features described in the Gen 2 protocol (including dense reader mode operation, password protection and kill commands), according to STMicroelectronics. However, while the Gen 2 chip has four times the complexity of a Gen 1 chip, its price will match that of the Gen 1 thanks to a new, proprietary manufacturing process. The XRAG2 can hold 432 bits of memory, has 40-year data retention and can be used for more than 10,000 write-erase cycles, says the company.

PSC Releases Handheld With New Sirit Reader

PSC, a provider of mobile RFID readers and bar code scanners, based in Eugene, Oregon, has released the Falcon 5500, a handheld computer capable of reading EPC UHF Class 0, Class 1 and Gen 2 tags, as well as bar codes. PSC has embedded Sirit's Infinity 210 UHF RFID reader module into the Falcon 5500, integrated with the bar code scanner, which uses a Windows CE operating system with an Intel XScale processor. The Falcon 5500 is available with an embedded Wi-Fi radio to send data to the user's network. Alternatively, data can be collected and stored on the Falcon's 64 megabytes of memory, then downloaded into the user's network through a serial connection. Available now, the Falcon 5500 costs between \$5,000 and \$6,000, depending on the type of embedded bar code scanner, and whether it has a Wi-Fi radio. At the EPCglobal US Conference in Atlanta this week, the Falcon 5500 was demonstrated reading and writing Gen 2 tags made with chips from Texas Instruments.

Accu-Sort Releases RFID Software

Accu-Sort Systems, a company specializing in material-handling solutions and designs, has introduced two new software products to help companies deploy RFID tagging systems. The company deploys automated bar code labeling and RFID tagging systems for consumer goods manufacturers. Its Device Management platform controls devices, including fixed RFID interrogators, RFID printer-encoders, bar code scanners, handheld readers and scanners, conveyors and automatic label applicators. This platform collects data from such devices and exchanges EPC data with Accu-Sort's DataServer software. DataServer generates and manages EPCs and can feed EPC data into a company's warehouse management system or other application. The

Device Management and DataServer software products are part of Accu-Sort's FAST Tag Tag-to-Ship solution, which enables companies to generate and apply RFID smart labels—either manually or through automatic applicators— to cases and pallets of goods. The Tag-to-Ship solution, which works with UHF EPC Class 0 or Class 1 Gen 1 tags, is upgradeable to the Gen 2 EPC standard. The Data Management and DataServer suites are available now, though Accu-Sort has not yet released pricing information.

SAP Certifies Acsis' DataLink Integration

Acsis, a supply chain software company in Marlton, N.J., has been awarded an integration certification from enterprise software provider SAP for Acsis' DataLink Enterprise platform. DataLink Enterprise gathers data from RFID readers (interrogators), bar code scanners and other data-collection devices, then sends it to other systems, such as RFID middleware. The integration certification program is designed to assure SAP customers that auto-ID data collected through device management platforms can be easily integrated into SAP's Auto-ID Infrastructure (AII) middleware for RFID, a component of the SAP NetWeaver, a platform for integrating business processes and data from a range of sources. To be certified by SAP, DataLink had to pass three main tests: collecting RFID data and sending it to AII; receiving an EPC generated by AII so it could be encoded to a tag; and sending an encoded command to an RFID printer-encoder to write the EPC to a tag embedded in a smart label. Acsis, the first company to participate in SAP's integration certification program for AII, worked with SAP to perform the certification testing within the latter's Palo Alto labs. SAP says it is working with a number of other device management software providers in the certification program. It will also work with RFID interrogator and printer-encoder manufacturers to provide integration certification for those devices.

SAMSys Offers Gen 2 Starter Kit

SAMSys Technologies, a Durham, N.C., provider of RFID hardware, has launched the Gen 2 RFID Pilot Express program. This RFID hardware and software package is designed to enable companies to launch, in 30 days or less, a pilot RFID program using tags based on the EPCglobal Gen 2 protocol. The kit includes the SAMSys MP9320 v2.8 UHF reader (interrogator), which reads tags based on the EPC Gen 2, first-generation EPC and ISO 18000-6 A and B standards. It also includes two reader antennas, a light stack (which can be used to verify tag reads), sample Gen 2 tags manufactured by Texas Instruments, and the RFID Application Programming Interface for Developers. This product was designed to help developers network groups of readers by using Java and Microsoft .NET programming environments to write interfaces between the readers and their RFID middleware or custom applications for controlling reader functions. For a limited time, the RFID Gen 2 Pilot Express package is available for \$1,999, which SAMSys says is roughly half the cost of purchasing the components separately. SAMSys has been showcasing the kit at the EPCglobal US Conference in Atlanta, held from Sept. 13 to 15.

ConnecTerra Releases Enterprise Server

RFID software company ConnecTerra has announced the Enterprise Server, part of its family of RFTagAware products, which includes the Edge Server for device management and RFID tagging compliance solutions. The Enterprise Server centralizes EPC management and consists of an EPC commissioning tool; an EPC Information System (IS) repository service, for storing EPCs; EPC IS query and capture interfaces that provide EPC look-up services; a location service for identifying where a user's fixed readers are located; and the ability to create reports based on the RFID read events. By linking ConnecTerra's Edge Server to the Enterprise Server with the company's EPC IS, users can feed data into the Enterprise Server. ConnecTerra's EPC IS, part of the Enterprise Server offering, is the EPCglobal standard candidate protocol. The specification is expected to advance to a last-call working draft by the end of October, according to Ken Traub, ConnecTerra CTO and member of the EPCglobal Architecture Review Committee, which oversees all EPCglobal technical specifications. The Enterprise Server is available now; pricing information has not yet been released.

UPM Rafsec Gen 2 OneTenna Inlay Available

UPM Rafsec, a Finnish designer and manufacturer of RFID inlays, says its OneTenna EPC Gen 2 inlay is now commercially available. The inlay sports a newly designed antenna, the OneTenna, which the company said in June will replace four of its existing designs (see Rafsec Set to Produce Gen 2 Inlays). The OneTenna design accommodates five different chip placements, enabling its creation for use in the 868-870 MHz band allocated for Europe, the United States' 902-928 MHz band or the 950-956 MHz band in Japan. The company says the remaining two IC placement positions on the antenna allow the finished inlay to combat the detuning effect resulting from embedding the inlay in plastic in either the European or U.S. market. Rafsec is using the Gen 2 Monza chip made by Seattle-based manufacturer Impinj in its OneTenna inlay, but is also testing ICs from other manufacturers. The firm has been shipping samples of the inlay to its customers and partners since June and will increase its production capacity to a few million per month, starting in October, it says. Rafsec will also continue to manufacture its EPC Gen 1 Class 1 tags, as it says there is still a strong demand for these tags, especially in North America. The company has not divulged pricing information for its Gen 2 inlay.

Avery Dennison Starts Gen 2 Tag Production

Avery Dennison RFID, located in Clinton, S.C., says it has started commercial production of its AD-220 UHF EPC Gen 2 Class 1 tag, available now. The AD-220 uses the Monza Gen 2 chip manufactured by Seattle-based Impinj in the AD-220 but, the firm says it is also testing Gen 2 chips from other chip manufacturers, including Philips and Texas Instruments. The company will also continue to offer its AD-410 and AD-210 EPC Gen 1 Class 1 UHF tags. The AD-410 tag is designed for use in carton, tray and pallet applications, while the AD-210 is designed for use with various case contents.

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