

RFID Alliance Lab to Test RFID Products

RFID Journal, the University of Kansas and Rush Tracking Systems have teamed up to create a lab that will provide objective benchmarking reports on RFID equipment.

Sept. 22, 2004—*RFID Journal*, the University of Kansas's Information and Telecommunication Technology Center (ITTC) and Rush Tracking Systems have teamed up to create the RFID Alliance Lab, a not-for-profit testing facility that will provide objective benchmarking reports on RFID equipment. The first report will be published in early November and will cover all of the commercially available UHF RFID tags based on Class 1 and Class 0 Electronic Product Code specifications.

ITTC's facilities in Lawrence, Kan., will host the RFID Alliance Lab, and ITTC's professors and students will do the actual testing of RFID equipment.

"The RFID Alliance Lab's reports will contain information that end users would have a hard time getting elsewhere," says Dan Deavours, a research professor at ITTC who will supervise the work. "Tag manufacturers won't give out such specific information because they don't necessarily want to see direct comparisons between their products and those of their competitors. But that's the kind of information companies need in order to make informed decisions about what works for them."

The first report will detail each tag's performance during tests that reflect ideal and real-world conditions. The lab will test all the currently available UHF EPC tags, including those from Alien Technology, Avery Dennison, Matrics and UPM Rafsec.

The report will analyze read range, the effects of orientation on the ability to read tags successfully and the distances from which tags can be written to consistently. During the tests, the tags will be affixed to four types of products—those that are RF "transparent" (that is, products that don't interfere with RF signals, such as paper towels), opaque (liquid products that are harder to tag, such as shampoo bottles), flat reflective (products wrapped in foil) and cylindrical reflective (canned goods).

"We'll be looking at how well each tag works on these product types," says Toby Rush, president of Rush Tracking Systems, an RFID systems integrator based in Lenexa, Kan., near Kansas City, that specializes in identifying and implementing RFID solutions. Rush is providing the RFID Alliance Lab with advice on RFID-related issues. "End users have never had that kind of consolidated data to look at and base their decisions on. These reports will help end users reduce risk while saving time and money when evaluating their RFID hardware needs."

A second report, due out in early 2005, will examine how quickly tags can be read when alone in the read zone and the effects on read rates (successful tag reads per second) as the number of tags in the read zone are increased. The lab will study the effects of variables such as differences between various models and makes of RFID readers and RFID antennas.

RFID Journal chose to lend financial support to the RFID Alliance Lab at ITTC because the publication recognized that end users need high-quality, objective data, and ITTC has the skills to provide it. "ITTC has done testing on other RF products, including Bluetooth devices, and has the expertise to scientifically control

the variables in the test to make apple-to-apple comparisons," says Mark Robert, founder and editor of *RFID Journal*. "Moreover, ITTC is nonprofit and completely objective, so end users, including our readers, know the test results are accurate and fair."

Some of the testing will be done in an operational warehouse owned by a major corporation to ensure the tests reflect the real-world performance that end users will get when they deploy these tags in their own facilities.

The lab will produce a series of reports, which will be sold separately for \$995 or as a yearly subscription (four reports plus updates) for \$3,495. Companies will also be able to contract with the lab to do custom testing to solve deployment issues. Information regarding the lab and the reports can be obtained by contacting Dan Deavours at Deavours@ITTC.KU.edu. Persons who would like to be notified when the reports are available may send their name and contact information to Reports@RFIDAllianceLab.org.

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