

Retailers would be able to track their high-value items in showcases and act on data indicating which items were being shown, and by which employees.

By Claire Swedberg

April 6, 2007—RFID tag and antenna provider [RSI ID Technologies](#) has released an RFID-based tracking system designed to give jewelry retailers increased visibility into which items are attracting customer interest, and which are selling and by what sales person. The system, known as Pressiza, includes RFID tags, readers and software, as well as installation and integration services. RSI ID is offering a similar system for eyewear under the same name, which also became available this spring. RSI ID piloted both systems with two separate, unnamed retailers two months ago.

Tawnya Clark, RSI ID's sales and marketing vice president, says both types of specialty retailers (jewelry and eyewear) came to RSI seeking an RFID system that would allow them to track high-value items. Both also wanted to be able to make business decisions based on data showing which items were being tried on and sold, as well as which employees were handling those items.

RSI ID is providing EPC Gen 2 UHF (900 MHz) RFID tags that can be attached to jewelry or eyewear, either by wrapping them around an item or attaching them via a string. On each 96-bit tag, retailers can write a unique ID number of up to 12 digits, corresponding with further data about the product in the store's back-end system.

Within a store's jewelry case, RSI ID typically deploys four antennas and one reader on the bottom of the case. The readers have a deliberately short read range, and the antennas capture those ID numbers continuously. With the short read range, users can place a tagged item on top of the case without worrying that readers in the case's bottom will capture the tag's ID number and log it as having been returned.

To take an item out of the case, an employee first presents an ID badge with a Gen 2 RFID chip to an interrogator in the case, then removes the item. The reader captures the employee's ID number and, upon recognizing that employee as someone permitted to remove items, records which item was taken. It then sends that data through a cabled connection to the store's computer, which can connect to the back-end data management system or to a hosted server. If the employee does not have the authority to remove any items, the system sends an alert to the store manager.

The system can also be programmed to track the amount of time an item is outside of a case and send an alert if it is not replaced by a specific time. When an item is sold, the employee scans its RFID tag again and the sales data is directed to the store's accounting system. The tag is then removed and can be reused and rewritten with new identifying information.

The Pressiza eyewear system is similar to that designed for jewelry, says Clark, though the eyewear display cases are less uniform and require more custom placements of readers and antennas to ensure

that all tags are read.

Stores are interested in the system for more than just security, Clark says, adding, "It can be a useful tool for reconciling inventory." For example, the system can allow a store manager to determine who is selling what items, and to analyze which goods an employee is selling more of, as well as which ones are being sold. Even if the item isn't selling, a store manager can still use the data to understand how often it is being shown, then utilize that data to make decisions as to how the item can best be marketed. The system can also track who removes jewelry from the cases at the end of the day and who puts it back in the morning. "It helps the store manager understand what the salesperson is doing," Clark says.

For jewelry retailers, RSI ID is selling a kit for \$10,900 that includes software, hardware, installation into a retailer's existing display cases and integration with a store's back-end software. A similar eyewear system, notes Clark, would cost about \$1,000 more.