RFID in Retail

Return on Investment (ROI) Using RFID to Improve Customer Satisfaction, Inventory Control, Promotional Execution and Brand Authentication

The RFID ecosystem has come of age. Solutions providers have honed application expertise while software vendors now provide field-proven, retail-specific applications. Encouraged by the development of industry standards, major technology companies such as Microsoft, Intel, Oracle and IBM have made significant investments, which puts standard, interoperable RFID within the grasp of many more users. Tags now come in a wide variety of shapes and sizes, enabling tagging of any product, size or application — at very low cost and high return on investment.

Significant performance improvement in RFID hardware has led to a leap in capability. Drastically improved read rates have made previously untouchable applications effective and economically attractive to users. There has been a flowering of new applications based on the higher utility of Gen 2 RFID.

RFID is ready to provide value to retailers and their suppliers today.

Gen 2 RFID provides many opportunities to reduce cost, raise revenue and boost customer satisfaction in the retail sector. Access to more accurate and frequent inventory data for both retailers and vendors improves product availability and reduces inventory costs. Brand authentication technology enables an elegant and highly-effective method for ensuring that a high-value product is the real thing and not a cheap knock-off – protecting both brand and customer satisfaction. Promotional display deployment tracking ensures high-impact marketing and high ROI on marketing dollars. Asset tracking applications ensure efficient capital usage and accurate billing for pooled assets like pallets. In the end, RFID is leading to higher revenue and profits for retailer and vendor alike.

The following retail applications can provide ROI using Gen 2 RFID today:

> Promotional Tracking

> In-Store Inventory Management -- Items

> In-Store Inventory Management -- Pallets

> Brand Authentication

> Inventory Visibility in the Supply Chain

> Asset Tracking

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Promotional Tracking

Left, ALR-9900 Reader

Below, ALN-9540 Squiggle™ Inlay
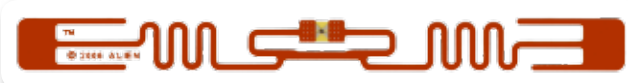
Value to Retailers:

> Boost marketing impact by ensuring timely deployment of promotional displays synchronized with advertising and other marketing efforts

> For example, Gillette reported increased sales-out of 5x in stores using RFID on a new product launch and 19% overall sales uplift on promotional items. Kimberly Clark announced a 33% improvement in on-time deployment of time-sensitive promotional displays

The Application:

> Track in-store deployment of displays to ensure timely deployment and removal of the display per the marketing plan

> Automatically record deployment of displays as they are taken on to the store floor and later retired at the box crusher

Applicable RFID products:

> Tags: The Alien® Squiggle® tag, featuring Alien's own H2 IC provides, reliable, automatic reads when the tagged display is moved from the back room to the retail floor when the throughway is equipped with an Alien portal reader

> Readers: Portal readers equipped with the ALR-9800 or ALR-9900 Enterprise readers. Handhelds from vendors such as Psion Teklogix and LXE

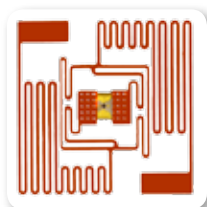## In-Store Inventory Management — Items

Value to Retailers:

> Significantly reduce cost and time required for physical inventory. The time it takes to do physical inventory is reduced by 90% from several man-days to a fraction of a day – in one multi-store pilot, management was able to reduce monthly inventory from 10 man-days (4 people for 2.5 days) to one hour for one person. This not only enabled lower costs, but enabled more frequent counts. The resulting RFID-based inventory was more accurate

> Eliminate stock-outs of product categories with high sku count such as apparel and books, leading to improved revenue and customer satisfaction

The Application:

> RFID-enabled physical inventory

> Using an RFID-equipped cart with a high-performance RFID reader, count tagged product simply by moving the cart down each aisle

Applicable RFID products:

> Tags: Alien H2-based tags such as the ALN-9562 Squiggle-SH and the ALN-9534 2x2, both sized to fit into typical hang-tag outlines of 1x3 or 2x2 inches. The ALN-9529 Squiggle-SQ, at only 1-inch square, fits on smaller items, yet still provides good range

> Readers: the ALR-9900 Enterprise reader, which delivers the sensitivity and speed required to penetrate stacks of apparel and other products. Alien Gen 2 tags are also compatible with EPC Gen 2 compliant handhelds

Right, ALN-9529 Squiggle SQ Inlay

Below, ALN-9562 Squiggle SH Inlay
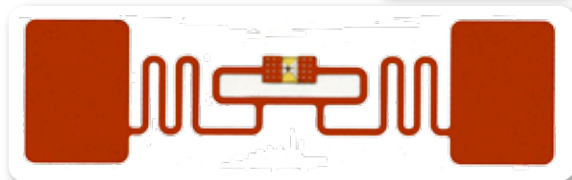
In-Store Inventory Management — Pallets

Value to Retailers:

> Reduce cost of searching for misplaced pallets of product

> Provide accurate inventory of product on pallets

> Enhance customer satisfaction, improve revenue and reduce stock-outs by speeding the retrieval and distribution of product to store shelves

The Application:

> Tag pallets and pallet-rack slots with Gen 2 tags

> Automatically capture the location of pallets when put away by associating pallet and pallet rack tag numbers in the database

> Provide forklift drivers with accurate locations of pallets of products for quick retrieval

Applicable RFID products:

> Tags: Alien high-performance tags such as the Squiggle and M-Tag

> Readers: Gen 2 forklift readers from vendors such as LXE. Handhelds from vendors such as Psion Teklogix and LXE. Enterprise readers such as the Alien Technology ALR-9900

Brand Authentication

Value to Retailers:

> Eliminate counterfeiting of high-value cosmetics, electronics, apparel and pharmaceuticals

> Protect brand integrity by eliminating knock-offs

> Enhance customer experience by ensuring quality

The Application:

> The product tag contains both a customer-writable EPC number and a factory-set, unique tag ID (TID) number

> The TID cannot be changed by a would-be counterfeiter, so an item with the correct pair of numbers is authentic. A quick check against a database using a handheld or desktop reader can verify authenticity by confirming properly paired numbers

> Much more effective than other authentication methods that can be copied – the TID number is factory set by the tag manufacturer in the IC and is unique

Applicable RFID products:

> Tags: Alien H2-based tags such as the Squiggle and Squiggle-SQ. Alien tags are compatible with any EPC Gen 2 compliant reader, including handhelds

> Readers: For desktop reading, use the ALR-9650 Smart Antenna reader. For conveyors, use the ALR-9900 Enterprise reader

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Inventory Visibility in the Supply Chain

Value to Retailers:

› Boost revenue and customer satisfaction by reducing stock outs

› Provide vendors with real-time visibility of inventory in the supply chain, improving forecast accuracy and damping the inventory whipsaw effect

› Reduce inventory exposure, ageing and working capital requirements

The Application:

› Track packaged goods from factory to retail floor, and produce from farm to grocery cooler

› Product is automatically registered as it passes through RFID-equipped dock doors and thruways, providing location information

› Empty case boxes and RPCs are captured as they leave the store floor, indicating usage

Applicable RFID products:

› Tags: Alien high performance tags such as the industry-leading Squiggle or M-Tag

› Readers: Alien Enterprise Readers such as the ALR-9800 and ALR-9900. Alien Smart Antenna readers such as the ALR-9650

Asset Tracking

Value to Retailers:

› Find lost assets and boost capital efficiency by reducing the number of assets required to support the business process

› Ensure accurate billing for pooled assets like pallets

The Application:

› Track reusable plastic containers (RPCs), pallets, roll cages and other assets as they move through the supply chain or within a closed loop material handling process

› Assets are automatically registered as they pass through RFID-equipped dock doors and thruways, providing location information

Applicable RFID products:

› Tags: Alien high performance tags such as the Squiggle and M-Tag

› Readers: Alien Enterprise Readers such as the ALR-9800 and ALR-9900. Alien Smart Antenna readers such as the ALR-9650

Return on Investment from using RFID to improve customer satisfaction, inventory control, promotional execution and brand authentication is realistic today.

Alien Technology® works with a global partner community of expert integrators, software and hardware vendors to deliver solutions for retailers and consumer goods vendors. In addition to industry-leading Gen 2 RFID tags and readers, we offer an extensive set of expert RFID services including education, consulting and implementation designed to complement our partners' retail expertise.

Contact us today at
www.alientechnology.com
for more information.