

*Discover
why RFID
is in fashion*

UPM RAFLATAC





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A technology that benefits all



In the past decade, RFID or Radio Frequency Identification has revolutionized the way a whole host of industries do business. The apparel industry is now joining this list. In fact, more companies than ever, including apparel manufacturers, brand owners and retailers, are using the technology to better their business.

UPM Raflatac is a global leader in RFID tag manufacturing. We operate globally with local support in Europe, Asia and the Americas. Our UHF products are used by the apparel industry worldwide. In this brochure, we will highlight the many benefits RFID item level tagging brings to the apparel industry. This will involve looking at every stage of the process from source tagging through the supply chain to distribution centers and in-store operations.

Why item level RFID tagging makes sense

- Reduces out of stock situations
 - With short sales cycles products are often marked down quickly
 - Products require frequent replenishment from back-store or distribution center
 - Increases product availability considerably
 - Improves customer experience and speeds up service
 - Gives retailers and brands valuable information about the supply chain and inventory as well as product consumption and cycle speed.
- Enables production monitoring
 - Enhances production planning
 - Easier to control inventory and warehouse management



Supply chain management

Now, more than ever before, apparel manufacturing is a global business that spans continents. Goods are often produced thousands of miles from their eventual point of sale. Accurate, up-to-date information is therefore crucial to manage worldwide supply chains successfully. In order to increase sales and reduce out of stock situations, the supply chain, from the manufacturers through distributors to retailers, has to be transparent and well managed.

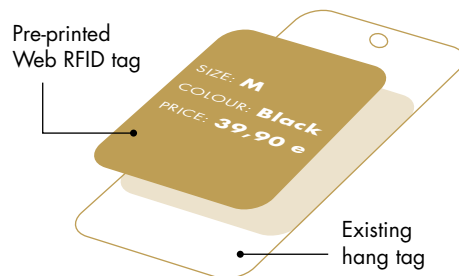


Source tagging

There are three ways to tag apparel at its source. Thanks to it being easier to implement and more cost-effective, option one is often the most popular choice.

1) Apply RFID tags to existing hang tags

- Manufacturer receives ready printed and initialized paper-faced RFID tags and applies them to existing hang tags



- Very flexible and cost-efficient way to tag at source
- Low cost of ownership
- One product fits all hang tags

2) RFID inlay converted inside the hang tag

- Manufacturer receives ready printed and converted RFID hang tags
- Traditional way of manufacturing hang tags

3) Prepare RFID tags at source

- Manufacturer must have the required equipment and understanding of the technology
 - RFID printer: to print and initialize paper-faced RFID tags
 - RFID source tagging station: to incorporate information from bar-code to RFID tag
- User education needed

Challenges of source tagging for garment manufacturer

- Ensure that the RFID tag is associated with the right garment.
- Educate people to use and understand RFID technology
- Changes needed in operations

Benefits of source tagging for garment manufacturer

- Better service for their customers (brand owners and retailers)
- Process improvements
- Better control over own supply chain management
- Faster billing process
- Easy to create advanced shipping notice (ASN)
- 37% of the time an out of stock situation leads to lost sales for the manufacturer. This problem can be eliminated with RFID technology.

More efficient distribution

Once merchandise is tagged at the source and shipped, its next port of call is the distribution center. Packed in boxes or hanging on rails, it can immediately be checked against the advanced shipping notice or ASN. Regardless for logistics providers of whether the center staff receives a high volume of goods in one go or needs to verify the contents of boxes, RFID simplifies the process and makes it more effective.

After being processed, the merchandise is sorted automatically based on the Electronic Product Code (EPC) enabled RFID tags, in effect tailoring the distribution to be as efficient as possible. What this means in practice is a reduced need for manual labor, a reduction in handling errors and lower costs.





Benefits RFID brings to logistics service providers and distribution centers:

- Better service for their customers, both retailers and brand owners
- Higher shipping accuracy
- The ability to see what products are where means a better knowledge of inventory
- Reliable and fast goods receipt and shipping process
- RFID creates new business opportunities for logistics service providers





RFID sorting system

After RFID tags are attached at the item level and the garments are automatically identified, the next step is to make sure they go to the right destination. Compared to current barcode systems, RFID is more reliable and faster at sorting and routing goods, regardless of whether they are allocated for direct store delivery, forwarded to a distributor or stored in-house.

Benefits

- Garments can be sorted by individual shops
- Minimize errors in sorting
- Faster process
- Less manual work





Back-store management

Real-time supply chain information enables retailers to know well in advance which goods will arrive and when. Incoming goods are scanned with a hand-held RFID reader connected to an enterprise resource planning (ERP) system. This type of system reduces administrative time for sales staff and allows them to focus on the more important business of selling. What's more, they know what goods they have in the storeroom and where they are. This means that they can react faster to customer needs and provide a better level of service.



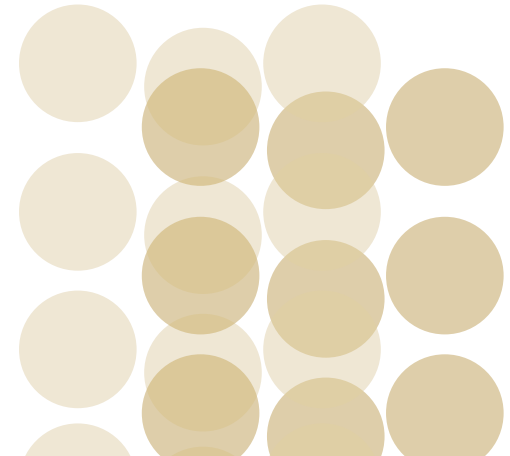
In-store operations

Another way in which RFID makes a real difference to a retailer is in increased sales. RFID technology based systems show stock levels. If they fall below a pre-determined customer-set level, the system generates an alarm for replenishment. As a consequence, out of stocks are dramatically reduced.

Note that there are three different ways to sell apparel and footwear:

- Department stores
- Shop in shop
- Vertical retailers

Although these three all benefit in slightly different ways, increased sales, reduced out of stock and better inventory management are common to them all.



Disadvantages of out of stocks and markdowns

Out of Stocks	Brand Loyalty	Product Obsolescence & Markdowns
Industry standard for apparel and fashion retailers is to experience 8–10% out of stocks	49% of the time an out of stock leads to lost sale for the retailer	Merchandise is marked down up to 40–60% towards the end of each fashion season
55% out of stocks take longer than 24 hours to remediate		Markdowns have a direct impact on the retailer's margins



Source: OAT Systems

Leveraging RFID technology

Problems with traditional inventory systems

As the apparel industry evolves, traditional inventory systems find it difficult to cope. The fact that they are manual means they are very time consuming. Consequently, sales people are kept from their primary task, serving the customer.

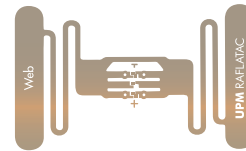
RFID solutions provide a competitive edge

RFID technology gives retailers instant access to inventory on the sales floor, the storeroom and the fitting room. Sales staff can cross-sell, up-sell and boost the value of each transaction. The capacity to automatically replenish out-of-stock merchandise helps to guarantee increased customer satisfaction. In addition to these advantages, automated cycle counting frees up salespeople, while responsive forecasting and fulfillment ensures fewer markdowns and closeouts.

Source: AMR Research



Leveraging



In the past, it has been difficult for retailers to know exactly what is in their inventory. Often, they only assess stock levels once every quarter and sometimes even less. Because the methods used are so inaccurate, research has shown 65% of the traditional inventories give the wrong figures. By using RFID technology it is possible to perform an accurate inventory check every day if necessary.

What's more, UHF tags are also compatible with Electronic Article Surveillance (EAS). Thanks to global standards, one tag can be used throughout the entire supply chain.

A new kind of shopping experience

At the point of sale, RFID price tags mean that a number of garments can be scanned simultaneously. This makes it easier to serve a customer quickly and effectively.



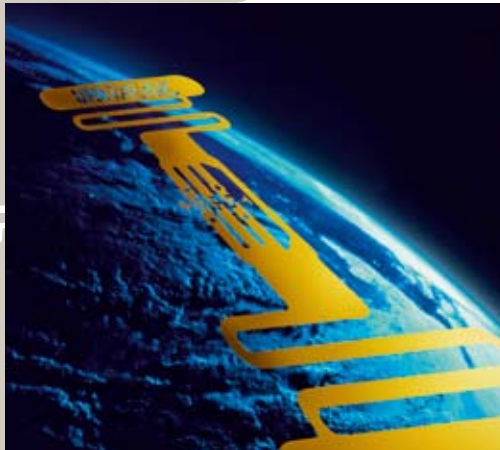


*A world of
opportunities*

**RFID provides a world
of opportunities to enhance
customer experiences**

- Opportunity to cross-sell
- Innovative loyalty schemes
- Faster customer service
- New shopping experiences such as smart mirrors and smart shelves
- Online shopping
- Customer can be sure that the products are authentic

Web



UPM Raflatac – The global leader in RFID tags

At UPM Raflatac we've been working on RFID for over a decade. In this time, we've developed some of the industry's most important innovations. Now, we're the world's biggest producer of RFID tags and inlays. What's more, we are also a leading supplier of pressure sensitive labelstock employing over 2,500 professionals on five continents. Our tags are used around the globe, and we're constantly helping companies across the industries to adopt RFID technology.

Our global partners trust us to supply cost-effective RFID tags that are of the highest quality and do the best job possible. Our proud history of innovation means we have a portfolio to suit all needs. We specialize in the cost-effective, high-volume production of HF and UHF tags and inlays with an emphasis on quality, product yield and performance. UPM Raflatac's RFID operations are both ISO 14001 and ISO 9001 certified.

UPM RAFLATAC

A product portfolio that's made to measure

Our apparel collection includes the global Web and ShortDipole. The Web product is specifically designed for the item level tagging of apparel. It offers global functionality and steady performance across all regions around the globe. This product is becoming the industry standard used by major retailers, brand owners and logistics service providers. As well as being fully interoperable with hardware and converting machinery, it is orientation insensitive and performs very well in close proximity reading.



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Success stories

Background: Galeria Kaufhof, part of the METRO Group, is a retailer based in Europe. It has a flagship store in Essen, Germany.

Challenge: The company wants to enhance its customer service and increase the availability of its goods with a more transparent goods flow.

Solution: An entire floor of the Essen department store was outfitted with Electronic Product Code (EPC) RFID technology, enabling customers to use RFID-enabled dressing rooms and displays.

Thirty thousand articles of clothing and accessories now have hang tags embedded with UPM Raflatac EPC Gen2 ShortDipole RFID tags. Approximately sixty RFID interrogators, with a total of more than one hundred antennas, capture data from the labels.

Result: The store can capture and analyze data, allowing it to see which items were tried on together, and if these outfits were eventually purchased. It will also be able to observe how the positioning and presentation of goods affect sales. The opportunity to assess how long goods take to reach the sales floor, and how long they spend there, is yet another benefit.

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Success stories

Background: Karstadt is a German retailer, which employs more than thirty-six thousand people. In 2006, it had sales of nearly five billion euros.

Challenge: The company wanted to track goods from the time of arrival at a store until the point of sale, manage its inventory more effectively and locate goods to facilitate price changes.

Solution: The company started a pilot scheme, in which UPM Raflatac collaborated with system integrators, ADT and RFID middle-ware experts, RF-IT Solutions. Once completed, twenty thousand hang tags with embedded UPM Raflatac RFID inlays were attached to jeans and sportswear items. Each inlay was encoded only with a unique ID in the form of an Electronic Product Code (EPC).

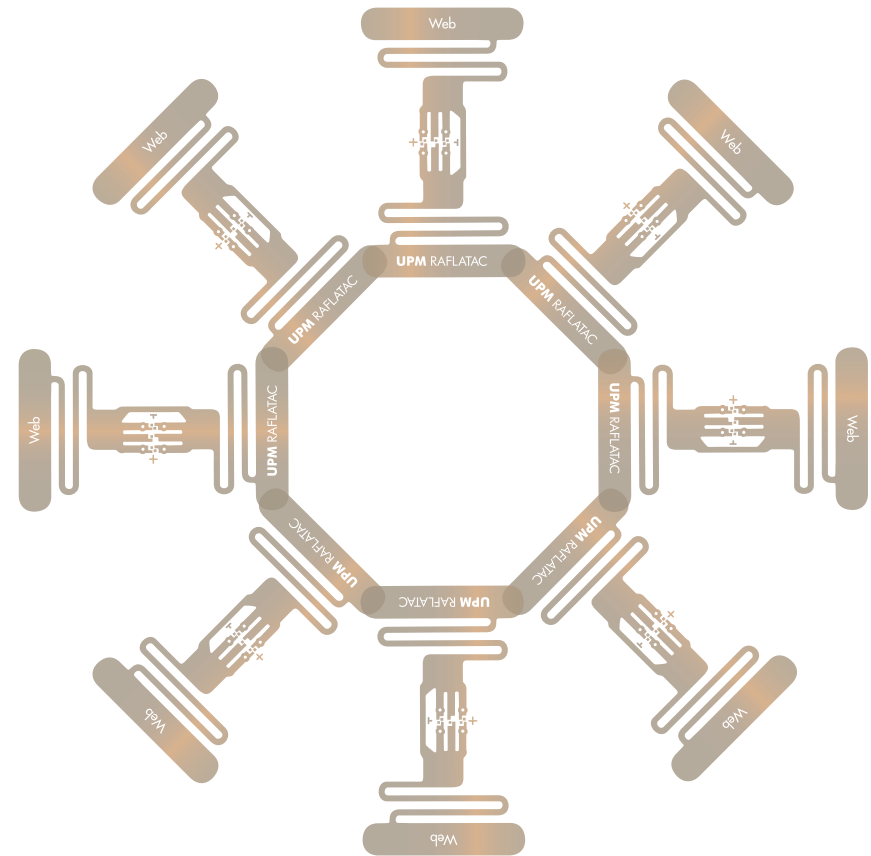
Result: RFID tags enabled sales clerks to quickly identify which items needed to be marked down, helping Karstadt sell the goods quicker. Inventory of all items in stock can now be done electronically, saving time and money, while greatly reducing the errors that plague the manual process.

Contact us

If you are eager to take advantage of the huge benefits RFID brings to your business, we can help. Our ecosystem of partners means that we can look at your specific needs and create the ideal team. If you want to improve your business or find out about your potential ROI, get in touch with the global leaders in RFID tagging, UPM Raflatac.

www.upmrfid.com

Pro RFID.





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