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**Top ten guide to risk-free RFID**  
~ Zebra Technologies outlines how to, and when to use  
RFID technology ~

As the hype surrounding Radio Frequency Identification (RFID) intensifies, many retailers and suppliers are finding themselves overwhelmed by alien vocabulary, fast-breaking updates on standards or the latest compliance requirements. This guide is designed to enable you cut through the wealth of information to understand how the technology applies to your business.

Before reading on, you may wish to complete the five-point RFID self-assessment check-list below to assess whether or not RFID is right for you:

1. Would your business benefit from better inventory management?
2. Do you need to know more about what's on your shelves or in your warehouse?
3. Do you need greater visibility of your products through the supply chain?
4. Do you have disparate or remote logistics providers who find it difficult to access central databases?
5. Is your organisation part of a bigger supply chain where RFID might become mandatory

**Top ten truths about RFID**

**1. RFID is not a flash in the pan**

Contrary to popular belief, RFID has been around, and in use by companies, for many years. One of the reasons the technology is receiving such attention at the moment is because at the beginning of 2005 Wal-Mart issued a mandate to its suppliers. This dictate to the organisation's top 100 suppliers meant they needed to achieve pallet and case-level tagging by the start of the year, with the rest of its suppliers on board by 2006.

## **2. RFID is happening today**

RFID is likely to achieve quicker adoption rates than other auto ID technologies because the solution is able to leverage existing bar code systems, which have demonstrably, paved the way for RFID technology.

## **3. Implemented correctly, RFID yields measurable ROI**

Many retailers and suppliers still falsely regard RFID as expensive, but the reality is, with planning it can soon show attractive returns on investment which is mutually beneficial for both retailers and suppliers. The automated reporting of real-time accurate data can provide a significant advantage to all retailers.

## **4. RFID can improve inventory management, customer service and improved supply process**

- **Inventory Management**

Inventory control is often a costly and time-consuming process. RFID can enable the automation of inventory management, helping you to optimise stock levels.

- **Customer Service**

RFID tagged items can offer store-to-store visibility, so customer requests can be handled quickly and easily through access to a centralised database.

- **Faster consolidation of orders**

Proven efficiency in raising advance shipping notices (ASN's) by using RFID passive smart labels has allowed suppliers to improve delivery schedules which in turn have reduced picking failures in the supply chain.

## **5. It is getting cheaper**

RFID costs are decreasing rapidly as seen by recent announcements surrounding costs, and will continue to reduce rapidly as more companies adopt the technology; in addition, standardisation is bringing the cost of RFID down drastically. Despite the relatively high cost now, retailers should start researching and trialing RFID solutions as soon as they can, in order to reap maximum benefit.

## **6. RFID and barcoding both have a place in the market**

RFID and barcoding both have their uses, and it is likely that they will continue to co-exist. However, there are limitations to barcoding that RFID addresses:

- Line-of-sight

Barcode readers can only read barcodes within line of sight, unlike RFID readers. RFID tags can be read inside pallets or through other products, allowing an accurate determination of what's inside.

- Product data only

Barcoding only identifies the Unique Product Code (UPC). RFID tags assign a unique number to each individual item. In addition, read/write RFID allows you to update information about the item as necessary; this feature could be beneficial in tracking repairs on a part, identifying specific items for recall or managing products with a dated shelf life.

- Increased velocity

With truly unattended automatic read capability the opportunity to increase velocity of packaging such as pallet and cases. The efficiency on the supply chain can be improved.

## **7. It's not a waiting game**

If you put off implementing RFID to see what happens in the market, you could find yourself left behind. If you are not currently trialling RFID then you can bet that your competitors are, and when the technology starts to deliver benefits that give them a business advantage, your learning curve will hold you back.

## **8. Not all RFID tags are the same**

RFID tags are not one-size-fits all. There are different types of tags, each with its own usefulness depending on the application:

- Active tags

Active tags have a battery included on the tag, providing greater read range. The battery increases the basic cost per unit.

- Passive tags

These tags use the magnetic field generated by the RFID reader to power themselves. Though the read range is lower, the price per unit is cheaper than active tags.

- Write once/read only tags

Once written, no information on the tag can be modified. To get the most benefit from these tags, they need to be connected with a database that has detailed history and information about that item. These tags are the cheapest, making them the most appropriate for inexpensive items.

- Read/write RFID tags

The flexibility of read/write tags helps in remote storage situations where the relating database is out of range.

### **9. RFID can be gradually integrated into the business**

It isn't about an all-or-nothing approach. You can carefully control the impact and measure the benefits of RFID deployment by incorporating the technology into the business gradually. Typically retailers may wish to begin with high value product lines such as electrical equipment before rolling this out to other areas of the business. Equally you don't need end-to-end RFID technology in order to start reaping the benefits – typically the supply chain will comprise a combination of RFID, smart-labels and traditional barcodes.

### **10. There are no significant barriers to implementation that can't be overcome**

In order to achieve optimal performance from an RFID system, a product may need to be re-packaged, or in special cases, business processes may need to be changed in order to remove obstacles that prevent RFID being used. However, creative thinking can help many you share in the benefits of RFID.

*To find out more, please call 01493 472872 or visit the RFID section of Zebra's website at [www.rfidzebra.com](http://www.rfidzebra.com).*

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