

The Retailer's RFID Checklist

From Evaluating Costs, to
Future-Proofing Investments:

**10 Must-Haves in a Real-Time
Inventory Tracking Solution**



nexite

An age-old technology is making a comeback: retailers are jumping to pilot RFID due to the many touted advantages of item-level inventory tracking and the problems it can potentially address:

- › **Reduce losses from inventory distortion** - Tracking inventory location at the item level - knowing what's in stock, what isn't, what's not on the shelf and what should be - can help retailers better understand customer demand and tackle an excess inventory problem that costs retailers \$250B+ in the U.S. alone.
- › **Inventory management** - High inventory accuracy with RFID promises to improve accuracy around inventory counts, fulfill ecommerce orders from stores, restock returned items, and other inventory tasks.
- › **Faster checkouts:** RFID automated checkout kiosks can offer fast, convenient checkout experiences for customers. However, current checkout kiosks are not intuitive, almost inevitably require some intervention from store staff, and don't prevent checkout lines (or theft) from happening.
- › **Real-time traceability** - RFID systems with fixed readers that automatically capture data from nearby tags can theoretically eliminate some of the operational inefficiencies of working with manual RFID scanners, while tracking inventory location continuously.

These benefits translate to potential cost savings and decreased shrinkage through reduced labor costs - fewer employee hours spent on manual stock counts and investigations - and lowering shrinkage caused by theft and misplaced inventory.

Despite these advantages and the pressures retailers are under to reduce waste and operating costs, full rollout for RFID is still sparse in fashion retail. The reason is simple: Retailers can't justify the price of an RFID solution based on cost savings alone.

To gain value out of item-level inventory tracking technologies, retailers must quantify the return on investment from RFID and ensure the solution can grow enough to support future use cases that develop.

Next-generation RFID solutions like NanoBT are using widely standardized Bluetooth technology to connect physical merchandise to its ecosystem - shoppers, store employees, and the store floor itself - to provide more insights that increase sales, at a price point that is often covered by the operational savings it creates.

1 - Kearney.com, "How can high-tech companies digest \$250 billion in inventory?", March 30, 2023.

The Retailer's RFID Checklist

10 must-haves in a real-time tracking solution for fashion retail

- ✓ Accurate data
- ✓ A single retail control system in stores and across the chain
- ✓ Built for fashion retail brands
- ✓ Customer-centric and built for a mobile-first world
- ✓ Built-in security and loss prevention
- ✓ Support excellence
- ✓ Minimize waste and inject sustainability into your brand
- ✓ Future-proof your business
- ✓ Pricing - is it cost-effective?
- ✓ How quickly the solution achieves ROI

Breaking Down The Checklist

What You Need to Know



Accurate data

RFID can raise inventory accuracy levels to 98+%. However, with manual RFID, this accuracy is susceptible to human error and more importantly, is merely a snapshot in time of your inventory. Retailers need the live location and availability pulse of every item, to gain a dynamic flow of real-time inventory data continuously without error.

RFID using overhead readers captures data more regularly, but can't differentiate inventory based on its location in the store. For example, safety stock stored in the backroom for ecommerce fulfillment will often be included in the inventory count, when in reality it's not going to be available for sale in the store. That lack of accuracy is expensive, especially its impact on assortment and allocation planning.

A single retail control system in stores and across the chain

Item-level tracking solutions should help retailers move from intuition to science, leveraging real-time insights across their stores to better control physical retail operations and optimize store performance. In addition, it should identify potential risks before they impact sales. For example, NanoBT tracks customer behavior across the entire in-store buying journey, from the moment they see a style to picking it up, trying it on, and either abandoning or purchasing it. Measuring the pulse of how customers engage with each style in each store, in real-time, can reveal dips in engagement, even before sales are affected. Combined with real-time notifications to merchandising, retail and store staff teams, it can quantifiably:

- › Improve merchandise, sales, and employee performance in each store
- › Enable fast, easy communication between headquarters to stores, and make it possible to share learnings between stores
- › Optimize visual merchandising per store to optimize sqm.
- › Track and improve visual merchandising compliance
- › Improve assortment and buying strategies on both store and chain levels.

Built for fashion retail brands

When retailers plan to track inventory on the item level, in real time, they need data not only on where merchandise is, but how customers see and engage with it to gain a “display pulse”. This display pulse can translate these data points into actionable insights, from why zero sellers aren't selling, to which options have the potential to sell better if given more exposure on the sales floor. When looking for an RFID solution, ask questions like,

- › Will it show me what's on display automatically, in real time?
- › Will it help me identify the cause of zero sellers?
- › Will it help me decide what to put on display in each store?
- › Will it optimize stock levels in each store to meet but not exceed local demand?

Customer-centric and built for a mobile-first world

Does the technology work with mobile phones? If not, it's not going to survive well in the near future. Mobile self-checkout, omnichannel shopping patterns and the need to support employees should have retailers concerned about investing in solutions that aren't compatible with mobile phones.

If real-time inventory availability isn't reflected in what's available online for fulfillment, it leaves retailers at risk of dissatisfied omnichannel customers who can't buy what they want, where they want. Look for technology that can create more engaging and personalized shopping journeys, with customer-facing mobile applications that let them navigate physical stores themselves, view product details on their mobile phone, and frictionlessly checkout.

Built-in security and loss prevention



Not all RFID solutions are compatible with existing Electronic Article Surveillance (EAS) systems, requiring additional investments. The cost of using separate tracking and security tags add up. Ideally, item-level tracking solutions should replace security tags and support some form of self-checkout.

Make sure the solutions you are evaluating integrate with standard EAS systems, and use the data to create a pulse of the anti-theft security measures in your store to maintain a safe and secure shopping environment.

Support employee excellence

Item-level RFID solutions speed up stock counts, but employees still spend hours counting inventory, investigating inventory discrepancies, and managing the system itself. There's also the cost of training: Often by the time somebody is well-trained for inventory counting, they decide to switch jobs.

Store associates need automation and easy-to-use applications that fit their day-to-day challenges, save them time, and save money for the retailer.

Ask yourself, does this tracking solution equip your team with the tools and knowledge to excel in their roles? Do store staff receive notifications when shelves need replenishing, or when new merchandise needs to go on display? Do they get maps to see where inventory is located in real-time?

Minimize waste and inject sustainability into your brand

Empty shelves cost retailers \$707.4b, and overstocking leads to billions of dollars in destroyed merchandise. Even the best RFID solution will not accurately forecast where to add or reduce inventory in season to catch missing sales and reduce the risk of overstocking. For that, you'll have to look to NanoBT technology and AI-based retail solutions that not only help you reduce manufacturing or buying levels to match demand, but alert you to where merchandise should be transferred in or out, in real time, to optimally balance inventory.

Future-proof your business

Do the readers support over-the-air software updates? Do they introduce automation or just move processes? Do they meet future AI use cases?

As your stores' needs evolve, you will find new ways to utilize your data and real-time tracking to meet store sales targets, support operational excellence and optimize assortments. And you will want to do it without installing new hardware - which might require an entirely new installation process, shut down store operations for a time and increase costs for the solution.

Don't limit yourself to a single use case around inventory management.



Pricing - is it cost-effective?

When retailers look at the costs for RFID, they tend to think about the cost of readers, tags, and installation. It's important to look not only at what you're getting, but at the cost of missing out on potential cost savings using alternative technologies or solutions.

Hardware costs

The cost of passive RFID tags and readers varies depending on the chosen technology (manual vs. fixed reader scanning) and the scale of implementation.

- › **Tags** - At \$0.03 per tag, a luxury retailer might only spend \$300 a year on 10k tags. High volume retailers may need 100k tagged items per store, or \$3k per store for tags alone.
- › **EAS security tags** - \$0.17 per tag, = \$1.7k for low-volume, high end retailers and up to \$17k for high-volume retailers, assuming every item is tagged.
- › **Readers** - handheld scanners cost approximately \$1.2-2k. Fixed overhead readers for automated RFID are usually \$1-4k, not including wall mounting brackets and infrastructure. Adding enough readers across a store, in close enough proximity for RFID tags to transmit location data in real time, is priced prohibitively. That's why most retailers limit fixed RFID readers to one or two at the front of their store to prevent shrinkage. This limited use of real-time tracking misses out on all the benefits of actively tracking the customer journey in the store.

RFID Pricing Per Retail Volume

	Annual cost per store with 10k items sold per year, 300sqm./3k sqf. store	Annual cost per store with 50k items sold per year, 300sqm./3k sqf. store	Annual cost per store with 100k items sold per year, 600sqm./6k sqf. store
RFID via manual readers, passive tags, with security tags	\$0.51 per unit sold \$5,100 annually	\$0.35 per unit sold \$17,500 annually	\$0.39 per unit sold \$39,000
Real-time tracking via overhead readers and passive tags, with security tags	\$1.25 per unit sold \$12,500 annually	\$0.29 per unit sold \$14,500 annually	\$0.28 per unit sold \$28,000 annually

For the cost of a single fixed RFID reader, retailers can implement Nexite NanoBT readers across a store and gain real-time, automatic item tracking for all merchandise, from the sales floor through the backrooms and fitting room.

Asset Management Software - RFID can't operate without a system that makes sense of the incoming data and uses it to manage inventory. Subscription fees for software integrating with RFID data will usually cost between \$600 and \$2000. Look for software with subscription fees that, like the rest of the setup cost, are covered solely by the savings in store operating costs.

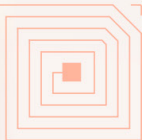
Workforce & maintenance costs

Employees need to be trained in the use of manual RFID scanners. For RFID solutions using both manual and fixed readers, employees have to learn how to use applications to investigate gaps between expected and actual stock counts.

- › Scanning tags, 3 hours of employee time per week = approx. \$4,000 a year.
- › Annual stock counts - \$2000 (manual RFID does not eliminate this cost)

Saving a store one hour of manual inventory tasks, for one employee per day, can save over \$5,000 per store over a year.

Look for a solution that automates tasks like gap investigations, receiving, and even locating items anywhere in the store to guarantee reduced operating costs.



Ideally, an item-level tracking solution will save enough on store operating costs alone to cover its setup and ongoing costs.

Cost-effective Inventory Management with Nexite

Cost Reduction Use Case	Saving with NanoBT	Cost	Annual Savings per store
Adding and Removing Security Tag	No need for security tags	\$0.17 per tag (fit 125 tags / hour)	\$1.5-15k
Yearly Stock Counts	Automate annual stock audits	2 per year. 2-3,000 per stock count	\$4-6k
Reduce inventory cost - React quickly to demand	Balance inventory and optimize on-shelf targets	Reduce inventory by 6%	\$5-10k
Daily/Weekly Inventory Tasks	Automate tasks (e.g. stock reception, counts, identify stockouts)	0.5 - 2 employee hrs/ day	\$5-13k
Customer Service Tasks	Speed up item search, Checkout, Return and order preparation	0.5-1 employee hrs/ day	\$2-3k

How quickly the solution achieves ROI

When retailers think about RFID, they imagine it will impact loss prevention and reduce cases of overstocking and understocking in future assortments - and they're right, to a degree. However, manual RFID simply doesn't transfer data frequently enough to reduce operating costs or increase sales as rapidly as automated, continuous tracking solutions on the market today.



To achieve rapid ROI from any item-level tracking technology, retailers need to take it out of the context of the supply chain, and understand how it can revolutionize store operations and even store sales.

To get value from an RFID or any item-level tracking solution, you need to do more than understand where your merchandise is located - you need to use it to truly take control over physical retail operations. That means understanding how merchandise is displayed and engaged with by customers, and how your store layouts and employee compliance with VM standards are contributing to bestsellers and zero sellers alike.

New next-gen tracking and AI retail analytics solutions go beyond cost savings, using data on how merchandise is browsed and bought - or abandoned - to reduce customer churn, optimize product placement, maximize customer engagement and increase sales per square foot.

Real-Time Continuous Control

Nexite's Retail AI for the Physical World

Nexite transforms your retail stores from static spaces into dynamic sources of data and insights. We achieve this by capturing **5 essential real-time, in-store signals**:

1. **Engagement Pulse:** Measure customer interaction automatically with your products to identify early warnings and hidden opportunities, understand where in the journey customers churn and how to move slow and zero sellers. Bring the "customer voice" to localize store assortments
2. **Display Pulse:** See real-time store money maps with insights into product display effectiveness to optimize product placement, maximize customer engagement and increase sales per square feet
3. **Location Pulse:** Know the exact location of every item in real time to immediately find items for customers on the store floor or backroom, ensure display compliance and better upsell with in-store items that convert well together
4. **Availability Pulse:** Gain real-time inventory visibility with no manual intervention to ensure optimal stock levels and minimize out-of-stocks
5. **Security Pulse:** Using data-driven and anti-theft security measures maintain a safe and secure shopping environment and frictionless self-checkout

By merging these "pulses" with powerful AI, Nexite creates a unified **Retail Control System**. This empowers your store managers and merchandisers to:

- › **Make data-driven decisions:** Move beyond intuition. Learn from other stores and leverage real-time insights to optimize store performance.
- › **Proactively address issues:** Identify potential risks before they impact sales, ensuring a smooth customer experience.
- › **Become retail stars:** Equip your team with the tools and knowledge to excel in their roles and drive exceptional results.

The Nexite Advantage:

- › **Measurable impact:** Experience a 10%+ increase in sales through data-driven optimization strategies
- › **Improved customer experience:** Create a more engaging and personalized shopping journey for your customers
- › **Empowered teams:** Help your store managers to learn from each other and give your merchandisers the "customer voice"
- › **AI retail solution:** Go beyond operational inventory management with AI built for real-time, automated retail environments

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