

## The Promise of Uncomplicated RFID. Delivered

A massive transformation is happening as manufacturing transitions into a new phase, known as supply chain 4.0. This is driven by the need to boost efficiencies and improve agility to better respond to increasing market demands. It's designed to build "smart factories" that bring together automation and real-time analytics, through enterprise-wide connectivity, to redefine processes, differentiate offerings and outperform competition.

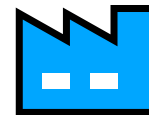
To remain competitive in this highly complex and dynamic business environment, it is crucial for you to join this trend and be prepared to leverage the growth opportunities that lie ahead. See how the right technology can give you the visibility, the knowledge and the agility you need to track and optimize every process, asset and resource with pinpoint, end-to-end accuracy. This technology has the power to start the transformation your plant floor operations need.

### RFID. The Enabler of Manufacturing Operations Transformation

Radio frequency identification (RFID) technology is a remarkable business tool that has evolved throughout the years to become an increasingly practical and affordable solution to many operational challenges. As more items are source-tagged at the point of manufacture — raw materials, parts, subassemblies, equipment, components, products, containers — more businesses are adopting this technology that delivers extremely high inventory accuracy.

In manufacturing, getting the most out of everything — materials, workforce, assets — is crucial to success. RFID technology improves data acquisition quality, accelerates processes, enables better traceability, provides greater visibility, prevents losses, and optimizes Work-in-Process (WIP) and inventory management. The increase in RFID usage is not only due to advances in the technology, but also to its continuous expansion into different applications because of the rapid development of information technology, and the reduced cost of RFID system components. To serve as an example, passive tags cost just a few cents of a US\$ today — that's 20 times less than over a decade ago.

To convert RFID benefits into positive ROI, its deployment needs to be done right. Fragmented and siloed adoption has given rise to concerns about the unreliability, complexity and high cost of the technology. Zebra has managed to change that perception with the long-awaited potential of easy-to-implement RFID, which is now finally within your reach. Zebra is the right partner to provide you with a solution that is properly integrated, configured and installed.



By 2020,  
**48%**  
of manufacturers  
plan to use RFID

2017 Manufacturing Vision Study,  
Zebra Technologies



## Zebra RFID. Full Potential. As Promised

Zebra leverages five decades of research, expertise, innovation, design thinking, software development and innumerable successful technology deployments. As the leader in mobile computing, data capture and barcode printing, Zebra has been powering RFID from the start. We have applied all that knowledge and experience to ensure that you obtain maximum RFID gains from one trusted partner, while minimizing the pains that can come with multi-vendor solutions. 600 RFID patents have allowed us to deliver many industry firsts. With Zebra as your partner, you can count on advanced technologies that will maximize the performance of your RFID solution.

### This Is How Zebra Fulfills the Promise of RFID for Manufacturing

Elevating the technology — from fragmentation to its game-changing potential — with a “**sense-analyze-act**” focus when it comes to solution design and integration. Zebra connects it all in one cohesive, trustworthy ecosystem that anticipates real-world challenges, improves component performance and automates processes.

#### Sense

Zebra offers the broadest RFID portfolio, and the only one that covers the entire value chain of RFID opportunities.



##### Fixed Readers

Increase automation and visibility within the flow of goods and on-hand inventory with unattended data capture



##### Handheld Readers

Improve your associates' performance by providing the ability to capture many items at the pull of a trigger



##### RFID Antennas

Select an antenna that operates in almost any environment, for a wide variety of use cases



##### RFID Printers

Give your assets a digital voice with accurate, scalable, RFID encoding solutions



##### RFID Labels and Supplies

Include a wide selection of RFID labels and tags to meet the requirements of most applications and budgets



##### Services and Signature Services

Design your RFID solution and obtain support to maximize uptime post installation



#### Analyze

**Zebra Savanna** is a cloud data platform that delivers actionable workflow insights, powering next generation applications by aggregating and analyzing edge data and creating systems of reality that provide best action guidance to workers in real time.

You can also leverage Zebra Savanna's public, unified APIs and developer tools to build secure, scalable digital services. Using a value-added API layer on Zebra Savanna, **Zebra Data Services** provides the ability to innovate, design and quickly deploy applications that transform businesses.

#### Act

With all that valuable information, manufacturers can easily identify patterns that enable them to improve processes, increase supply chain efficiency and act upon variables that affect production.

**This is how Zebra helps you achieve digital transformation and compete successfully in a fast-paced, data-driven economy.**

## Real-Time Visibility for Superior Work Control

With a systematic, consistent and reliable RFID solution, you can achieve transformation without disruption, creating value across your entire supply chain. It enables you to implement leaner, time-saving business practices that can result in greater revenue and profits throughout your manufacturing operations.

Application	Solution	Benefits
Inventory traceability	Our fixed RAIN RFID readers and antennas help you achieve maximum asset visibility, and quickly and accurately track inventory and assets.	Provides real-time visibility into manufacturing operations and gives operators continuous data flow to improve decision making.
Production scheduling and load balancing	The FX9600 offers top-of-the-line performance for high-volume, rugged environments. It can help you automate nearly every aspect of your inventory management — from receiving and putaway to picking and shipping — without errors, at a price you can afford.	Identifies idle equipment. This helps manufacturers increase asset utilization by effectively scheduling production.
Parts and finished goods inventory		Ensures that material and product inventories are correct, stored where they belong, and properly prepared for shipping to distributors/customers.
Work-in-Process tracking		Tracking can be performed more frequently for more granular, real-time visibility; better work-in-process monitoring saves time and ensures that the right materials are being used to produce the right products for the right orders.
Carrying costs reduction		Allows manufacturers to implement Just in Time (JIT) inventory management strategies. This way, items can be replenished as needed rather than kept on hand in large quantities.
Waste and shrinkage monitoring	Pave the way to frictionless time-saving workflows that drive process efficiency to a new high and transaction costs to a new low with the ATR7000. The wide-angle antenna ensures all tags in the coverage zone are visible, regardless of the size and complexity of your environment.	Helps manufacturers monitor waste levels from production lines and possible sources of internal theft or loss.
Equipment tracking and monitoring		Helps manufacturers locate lost or misplaced assets needed for production setup and execution. These assets can sometimes be invaluable intellectual property (IP) objects.

Application	Solution	Benefits
Labor tracking, access control and security	Conveniently print high quality Zebra RFID-enabled employee badges on a compact ZC300 Series Card Printer at lightning speed. Ground-breaking simplicity, security and connectivity options always at hand.	RFID technology can also be used to track and manage staff activity. RFID-enabled ID badges can be used for granting access to restricted zones or specific tools that require training, and track employee productivity as they move throughout the facility.



## Beyond Passive RFID and Into RTLS

Passive RFID is just the beginning. Explore a greenfield of opportunities within your manufacturing industry. Prepare to reveal what is hidden in plain sight and act upon it in real time. Automate processes for efficiency, and augment workers to free their time for higher value work. You'll be doing much more than implementing a technology to power data capture – you'll be building an ecosystem to fuel business transformation, and Zebra RFID is just what you need. To prepare your manufacturing operation for future success, talk to Zebra.

Want to know more? Please visit [www.zebra.com/rfid](http://www.zebra.com/rfid)



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