

# ENCODING, PRINTING & VALIDATING RFID TAGS WITH PORTALTRACK®



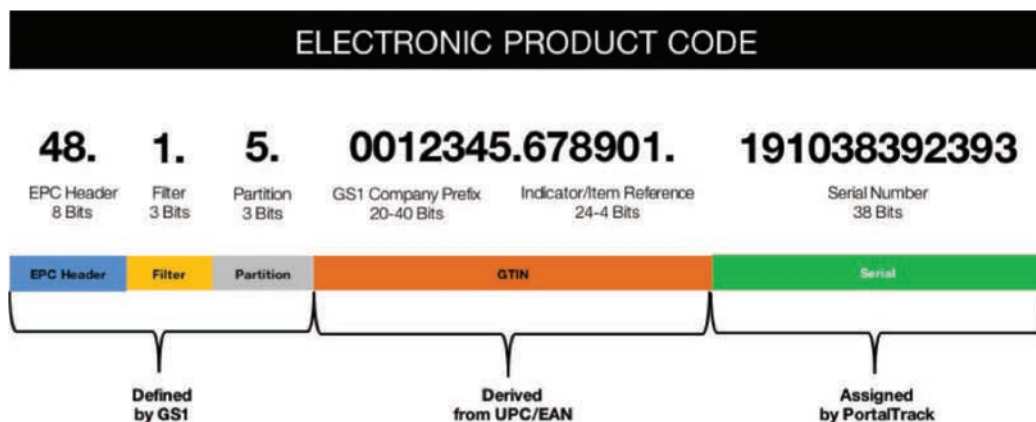
## Maximizing Your RFID Investment with PortalTrack from MSM Solutions

MSM Solutions PortalTrack gives you the freedom to tailor your RFID and Barcode data collection applications for real-time monitoring and analytical reporting of your business activity. Through its cloud-based and Internet of Things (IoT) architecture, PortalTrack integrates into a variety of host systems and can be embedded in the latest hardware technologies.



## What is an Electronic Product Code?

An Electronic Product Code (EPC) is a universal identifier that gives a unique identity to a specific physical object. The identities assigned to the objects are encoded on an RFID tags and can be used to track almost any object including fixed and mobile assets, documents, reusable transit items, consumer goods or any other physical object.



## Where are RFID Tags Printed and Encoded?

There are multiple ways that an RFID tag can be printed and encoded to suit your business model. MSM Solutions designed PortalTrack to work with whichever method of printing provides the best return, tailored to your application.

### 1 At the Source

Print on demand only the labels you need, when you need them, to avoid excess, obsolete tag inventory and improve management of serialization.

### 2 In the Store

Customizable print solutions enable fast, easy and cost effective replacement of missing and inaccurate hangtags.

### 3 At the Distribution Center

Consolidates EPC and barcode data on one label, eliminating the supplemental re-ticketing, to simplify logistics and realize considerable savings in time and money.

### 4 At a Service Bureau

Save time by having hangtags and labels printed in bulk at our service bureau for fast and responsive delivery to the manufacturing source.

## Ways to Generate RFID Labels & Tags

- Desktop Based Programs
- Web and Cloud Based Programs
- Mobile Device Programs
- Scan & Print
- High-Speed Inline & Bulk Encoding

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### Keeping Things Connected

PortalTrack is trusted by the world's leading brands and monitors over 1 Million global events per day.

## PortalTrack Easily Integrates Within Your Existing Barcode & RFID tagging Model.

As pioneers in Multi Chip Serialization, MSM Solutions' PortalTrack offers the most cost-effective and flexible solution that is simple to operate, can meet your mandate requirements, and can easily adapt to your current processes. With PortalTrack you can verify both barcode and RFID data in a single process.

## Core Benefits of Using PortalTrack for EPC Printing and Encoding of RFID Tags.

PortalTrack delivers the power to take complete control over printing and encoding of all of your RFID tags and labels, when and where you want them, for reduced operational costs and maximum efficiency throughout the entire supply chain. A scalable, customizable solution, PortalTrack delivers best total cost of ownership, whether for a single application or an intricate global enterprise solution.



### Reduces Operational Costs

Consolidate existing UPC labels into a single RFID label and significantly reduce your labor and material costs.



### Real-Time Visibility

Easily see what RFID tags have been printed, where and when they were printed, and who printed them.



### Proven ERP, WMS & Proprietary Integration

PortalTrack can be deployed in the cloud or on-site and integrates with the world's leading ERP and WMS systems.



### Multi Chip Vendor EPC Serialization

With PortalTrack you can easily manage tag serial numbers on a global scale allowing you to more efficiently allocate your IT resources



### GS1 Compliant for EPC Item Level Tagging

PortalTrack supports both MCS and managed serialization of EPC tags from the world's leading RFID tag manufacturers.



### Secure EPC Data Management

Designed in compliance with the latest EPC security protocols, PortalTrack software enables real-time data monitoring and analytics while safeguarding information.

## Ensuring EPC Verification & Quality Assurance with PortalTrack

MSM Solutions built the secure, scalable PortalTrack platform around industry-standard EPC guidelines and best practices for quality validation, delivering peace of mind and exceptional efficiency across many different applications.



PortalTrack complies with GS1 industry standards, accepted as the guiding global principal that drives real-time tracking, traceability and supply chain optimization in retail, manufacturing, healthcare, logistics and distribution. GS1 standards help highlight what really matters, providing common language to identify, capture and share data.

PortalTrack's EPC verification system ensures the quality of printed tickets and labels while also making sure that they meet the requirements of your customers, eliminating costly charge backs. Verification systems can be integrated with in-line conveyor systems or thermal printing systems to trigger alerts when quality standards are not met.

Trusted by major corporations and brands worldwide, PortalTrack has been deployed in mission critical applications with the Department of Defense, leading healthcare providers and global retailers with large distributed enterprises. With a robust verification and quality assurance program, PortalTrack ensures that EPC information is accessible, accurate and easily understood for each and every item throughout the entire supply chain, end-to-end, reducing costs and increasing return on investment.

## Why is EPC Verification and Validation Important?

An Electronic Product Code (EPC) is a universal identifier that gives a unique identity to a specific physical object. The identities assigned to the objects are encoded on an RFID tags and can be used to track almost any object including fixed and mobile assets, documents, reusable transit items, consumer goods or any other physical object.

### 1 Ensure Data Integrity

Mislabeled and inaccurate shipments cost brand owners millions of dollars each year in wasted resources and labor costs, and can ultimately lead to unsatisfied customers who don't receive the items they thought they'd purchased. With EPC data verification you can ensure that all of the correct items are in a specific shipment or package.

### 2 Order Process Assurance

With RFID EPC data you can easily control and automate your entire order and replenishment processes to ensure your customers have a positive experience in today's Omni-channel retail environment. With RFID you can ensure that your current and future customers needs are fulfilled.

### 3 Gray Market Mitigation

Ensuring that the right products get delivered to the right sales channels is a critical component of protecting the equity of your brand. With EPC data you'll be able to understand if your products are flowing through unauthorized channels

### 4 Anti-Counterfeiting

Every year brand owners and retailers lose Billions of dollars in revenues to counterfeit good sales. In many cases, the counterfeiters have become so good at what they do that it's become extremely difficult to distinguish legitimate vs. fake goods with the naked eye. With RFID EPC data, you'll be able to easily determine what's real and what isn't.

## RFID Tag and Label Overview

In an RFID system, RFID enabled tags are attached to each individual item that is to be tracked. An RFID tag contains a tiny integrated circuit (IC) that is sometimes referred to as a "chip". The chip is connected to an antenna that can then be embedded in a wide variety of form factors, including apparel hangtags, paper shipping labels, hard encased tags for manufacturing or heavy industries, and security tags, as well as specialty tags for the healthcare and automotive industries to track on metal and liquid-based objects.



### Custom RFID Tags & Labels for Brand Owners

MSM Solutions can print and encode RFID tags and labels that are tailored specifically to your solution or application. Just like traditional non-RFID labels, MSM solutions can print linear and 2D barcodes as well as human readable number sequencing, product descriptions and brand logos.

## World-Class RFID Chip & Inlay Partnerships

MSM Solutions works with the worlds largest and most reputable RFID inlay and chip providers. PortalTrack software can easily integrate and support the latest in chip technologies.



## Barcode and RFID Innovators

MSM Solutions has delivered innovative barcode and RFID technology for more than 30 years. If you're looking to meet EPC mandates, minimize errors and charge backs, or improve supply chain efficiency to save time, resources and money, MSM can provide a customized solution to meet your business needs



For more than 30 years, MSM Solutions has provided solutions focused on the integration of Auto-ID technologies for a wide range of industries including manufacturing, logistics, distribution, healthcare, retail and apparel. Leveraging our expertise in Barcoding and RFID technology, our expert staff has tailored solutions for customers around the world.

For more information about MSM Solutions and PortalTrack visit [www.msmsolutions.com](http://www.msmsolutions.com)