



Asset Management - Container Tracking

On-Demand Visibility for Ports and Container Yards

Solution Benefits:

- Improved port operations and record keeping through automation and use of e-manifests
- On-demand information for real-time decision making
- Reduced labor costs
- More accurate deliveries
- Easy to deploy and integrate with existing networks and access control, both indoors and outside
- Standards-based: ISO/IEC 18000-6:2010 and EPC Global C1G2 for open-loop operations

The Intelleflex solution for port operations and container tracking enables real-time monitoring of vehicles, drivers and containers to improve port operations, security and profitability. With Intelleflex XC3 Technology™, you can automatically and cost-effectively manage and track outgoing and incoming inventory, reduce tampering and more easily manage each container's e-manifest.

The Need for On-Demand Visibility

Managing and tracking the movement and inventory of containers at ports and yards represents a significant logistical challenge. Manual inspection processes and record keeping leads to errors and delays for tracking containers in and out of the port. Tampering and theft presents an increasing security risk. Port managers need an automated system for tracking e-manifests with containers to ensure accurate shipments, improve efficiency, reduce labor costs and streamline operations.

The Challenge

At any port, hundreds or thousands of shipping containers may be in motion at any given time. Even when assets exit and enter through controlled portals, they can be missed during peak operational periods and lost in a warehouse or loading area or placed aboard a ship.

In addition to being error prone, manual tracking methods increase labor costs. Misrouted containers or time spent searching for the correct container at a yard, loading dock or on a truck wastes time and delays deliveries, increases labor costs and results in dissatisfied customers, increased opportunity costs and lost revenues. Because containers move globally, tracking solutions must be internationally standardized, lightweight, rugged and inexpensive.

For years, RFID has been heralded as a solution but managing containers poses a huge challenge for most RFID-based systems. Containers are constructed of RF unfriendly materials and often contain dense objects, all of which make reliable reads challenging.

The Solution

Intelleflex delivers a cost-effective and reliable solution for monitoring and tracking containers at ports and shipping facilities. Intelleflex combines the power of our XC3 Technology RFID system with your existing assets and systems to produce an integrated solution for on-demand visibility that optimizes port operations – contributing directly to the bottom line.

Containers and vehicles with Intelleflex RFID tags are reliably tracked as they move in and out of the port. Intelleflex fixed RFID readers, located at key entry and exit points and at locations within the port, provide real-time visibility on what is leaving and entering as well as a container or vehicle's location within the port. Port workers can utilize Intelleflex handheld readers for spot checking and on-demand e-manifest retrieval.

Containers and vehicles with Intelleflex tags are not only automatically tracked but also contain a secure electronic manifest directly on the tag itself. This helps validate inventory and enables electronic seals for tamper prevention. E-manifest information can be easily integrated into inventory management and other systems via the Intelleflex API.

Intelleflex Extended Capability RFID™ solutions are designed for the most demanding environments and for long-term use with battery life of four years. Tags can be automatically and reliably be read at distances in excess of 100 meters and are built to withstand outdoor temperatures, moisture and dust conditions. Tags can be effectively utilized in RF unfriendly conditions involving metals, liquids and other dense materials that are beyond the capabilities of passive RFID. Intelleflex tags feature on-board memory, enabling the ability to store and wirelessly access e-manifests directly from the tag.

Intelleflex solutions are designed to integrate with your existing applications and networks, or be used standalone without the need for complex backend systems. Flexible application options make it simple for your port and office personnel to use the system. Based on industry standards, Intelleflex tags are ideal for open loop systems where containers move between multiple global locations.

XC3 Technology

Intelleflex solutions are enabled by Intelleflex XC3 Technology, allowing us to deliver the capability of active RFID-based solutions at a fraction of the cost.

- ISO/IEC 18000-6:2010 and EPC Global C1G2 standards-based
- Read ranges of 100 meters
- Easily read tags and monitor conditions inside containers
- Four year battery life for tags in normal operating conditions
- Operate seamlessly in RF unfriendly environments around metals and liquids
- Tags include on-board memory for tracking and storing information about the asset with multiple levels of security
- Intelleflex offers handheld and fixed readers, multiple form factor tags and antennas, as well as starter kits for piloting projects

Intelleflex Products Related to this Solution

- HMR-9090 Handheld and FMR-6000 Fixed Readers and Antennas
- BAT-8300 Badge Tag
- SMT-8100 Metal Tag
- STT-8000 Standard Tag

For More Information

To learn more please visit our website or contact us directly. We look forward to hearing from you.

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