



Asset Management - Air Cargo

FAA Compliant On-Demand Temperature Monitoring and Asset Tracking Solutions

Solution Benefits:

- Track, manage and optimize use of cargo assets including ULDs and cookie sheets
- Battery-assisted passive technology does not transmit or beacon and is safe for use in cargo holds — complies with RTCA/DO-160 per FAA AC 20-162
- Track and monitor the condition of temperature sensitive perishable foods and pharmaceuticals in transit
- Provides accountability and control throughout the supply chain
- Positive impact to the bottom line and service quality

The Intelleflex asset management solution for airlines and air freight carriers provides on-demand visibility for improved tracking and monitoring of assets and shipments. With Intelleflex, you can easily and accurately track the location and condition of ULDs and cookie sheets and support in-transit temperature monitoring for temperature sensitive products such as biopharmaceuticals and perishable foods.

Intelleflex XC3 Technology™ battery-assisted passive RFID tags operate in RF-unfriendly environments including around metals and liquids, and Intelleflex temperature monitoring tags are approved for use in airplane cargo holds in-flight. Unlike active RFID tags, Intelleflex tags do not beacon or transmit unless interrogated, even while the tag's battery safely powers sensors on the tag for monitoring temperature or other conditions.

With Intelleflex, carriers can improve operations and provide premium services to their customers, improving customer satisfaction and positively impacting the bottom line.

The Need for On-Demand Visibility

Increasing fuel and labor costs, along with shrinking margins, are forcing carriers to maximize the use of every asset to reduce expenses and increase profits. Manually searching for and tracking ULDs and cookie sheets wastes time and increases labor costs. Replacing lost or misplaced assets increases capital expenditures, needlessly reducing profits.

Globalization of the world's food supply and the rapid growth of biopharmaceuticals are rapidly escalating the need for temperature and condition monitoring in airplane cargo holds. To satisfy customers' increasing demands for perishable foods year around, highly temperature sensitive fruits and vegetables are shipped all over the world and even minor variances in temperature can significantly impact freshness and shelf life. Biopharmaceuticals must be maintained within a strict temperature band to ensure efficacy and safety.

The Challenge

Air cargo containers are shared across multiple planes and gates making it difficult to track an asset's location. Simply knowing that you have available ULDs and cookie sheets on hand is not enough — you need to know their location at any given time. Misrouted containers or time spent searching for a container on a tarmac or in a warehouse wastes time and delays deliveries — increasing labor and opportunity costs. Carrying more inventory than is needed results in unnecessary new purchases, increasing capital costs to make up for “missing” assets and eating into your profits.

In-transit condition monitoring creates unique issues for air carriers. For pharmaceuticals and perishable foods, it's critical to monitor the temperature of products at every stage of the cold chain to reduce waste and ensure the quality and efficacy of the product. Active technologies that beacon or transmit require manual or sophisticated methods for disabling the transmitter for in-flight use and wired solutions are difficult or impossible to access in-transit, limiting or completely preventing the ability to access the product's temperature data on-demand.

Increasing globalization requires that tracking and monitoring solutions must be internationally standardized, lightweight and inexpensive.

The Solution

Intelleflex delivers a cost-effective and reliable solution for tracking and monitoring ULDs and cookie sheets while also providing the ability to monitor temperature sensitive products in cargo holds. Our XC3 Technology solutions deliver on-demand data visibility that improves decision making and asset utilization — contributing directly to your bottom line. Containers with Intelleflex tags are automatically tracked as they move around tarmacs and in and out of cargo holds, and Intelleflex readers provide instant visibility about container locations and conditions.

Intelleflex solutions are designed for the most demanding environments. Tags can be automatically and reliably read at distances in excess of 300 feet (100 meters) and can withstand outdoor temperatures, moisture and dust conditions. Tags can be effectively utilized in RF unfriendly conditions involving metals and liquids that are beyond the capabilities of passive RFID. Tags can be reliably read inside trailers, pallets, and insulated pharmaceutical containers without unpacking.

Intelleflex tags feature on-chip memory for storing and easily accessing a complete history of the asset or product (such as maintenance records, condition data, etc.) directly from the tag. Our solutions are designed to integrate with your existing applications and networks or used standalone without the need for complex backend systems.

XC3 Technology

Intelleflex XC3 Technology temperature tags deliver the capability of active RFID-based solutions at a fraction of the cost

- Intelleflex XC3 Technology, delivers the capability of active RFID-based solutions at a fraction of the cost.
- Based on ISO/IEC 18000-6:2010 and EPCglobal C1G2 standards for battery assisted passive RFID
- Deliver read ranges in excess of 300 feet/100 meters
- Read tags and monitor conditions such as temperature inside containers and pallets
- Operate reliably in RF unfriendly environments involving metals and liquids
- Tags include on-chip memory for tracking and storing asset or product information 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

- Handheld and fixed readers and antennas
- Temperature monitoring and metal-mount tags

For More Information

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

www.intelleflex.com

+1 877 694 3539 Toll Free

+1 408 200 6500 International/Direct

info@intelleflex.com