

Refrigerated Cargo Management



Tracking, monitoring and securing refrigerated containers is serious business. That's why RSAE Labs uses military-grade but commercially priced components like the **Global Sentinel®** (GS-5L) and **mist®** wireless mesh sensors. Originally developed to track high-value military assets, RSAE Labs' solution is now available commercially. Over the past 16 years, RSAE Labs' technologies, products and services have evolved with enhanced features, performance and reliability even as costs were reduced. Finally, continuous cargo monitoring and globally reporting makes sense.

Global Sentinel® (GS-5L): The GS-5L's slim design allows it to be mounted covertly inside the control unit of most refrigerated containers, providing easy installation and direct access to the controller data bus and power connections. This integration enables continuous, remote monitoring and control. Redundant, 2-way, secure communications assures global coverage, using the least cost choice available between wireless mesh, cellular and Iridium satellite.

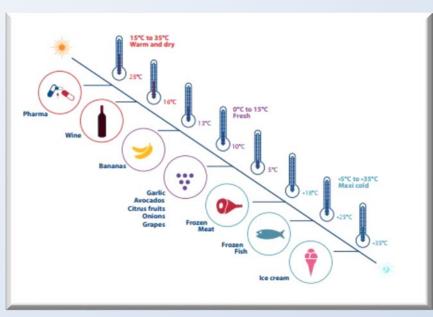
The mist® RSU-3 is representative of the many mist® wireless sensor devices that provide immediate alerts for out-of-tolerance temperature, humidity, shock and tilt as well as unauthorized access. With a 4+ year battery life and mounting sled, mist® wireless sensors can be permanently integrated with the container or installed as needed. Tiny mistBee® sensors make it practical to auto-inventory and monitor at the item level.

Global + Immediate + Secure + Scaling + Low Power + Low Cost

Refrigerated Cargo Management GS-5L mist® wireless sensors

Unlike other tracking, monitoring and security solutions that use less capable wireless technologies, like ZigBee and Bluetooth, requiring regular inspection with close-proximity handhelds or expensive retrofits to vessel infrastructure, a single container above deck with a **Global Sentinel** ® (GS-5L) can provide continuous, real-time, global access to **mist**® wireless mesh sensor data and M2M control interfaces on containers and other assets throughout the ships.

mist® devices automatically create a self-healing, two-way secure network among tens of thousands of sensor and control devices. Now, not only can the cargo be continuously monitored from the vessel's bridge but so can other items of interest, like hatches and ships systems, all wirelessly connected for monitoring control and without costly infrastructure. mistBee[®] sensor devices also enable the continuous. accurate collection of CO²-related emissions data to measure and validate Green Performance.



mist® Sensors Globally Report Out-of-Tolerance
Conditions, Allowing Immediate Corrective Interdiction

A simple mist® USB or Fixed mist® Gateway device can link seamlessly with legacy vessel systems for data visualization, control interfaces and off-board transmission via any available communications networks. RSAE Labs also offers data mapping and alert distribution via email and SMS text messages. Visit www.RSAELabs.com to see details on these and other solutions. Contact us at lnfo@RSAELabs.com and a representative will be happy to assist you with questions regarding your specific requirements