

UHF RFID TEMP TAGS PROVIDE TRANSPARENCY IN THE PHARMA COLD CHAIN

MEDLOG TRACKS AND TRACES MEDICINES ALL THE WAY TO THE CUSTOMER



Showcasing the use of UHF RFID technology in the pharma cold chain, CAEN RFID products have successfully provided the temperature monitoring solution for [Medlog](#), a subsidiary of Portuguese pharmaceutical distributor Coopropar. Medlog focuses on pharmaceutical logistics of temperature-sensitive medications including storage, shipping and delivery. In 2008 Medlog needed to upgrade its process to ensure that drugs are stored at the proper temperature from the time they are received from suppliers until they are delivered to customers. USB data loggers were deemed too much of a hassle for this large operation so Medlog considered using UHF RFID temperature tags for their pharmaceutical transport logging to give workers a way to accurately track product temperatures en route to customers. In their existing process workers placed USB temperature recorders with their product inside the trucks, but these loggers had to be configured and activated one by one and their data was only viewable in a database.



RFID TEMPERATURE MONITORING OVERVIEW

- UHF RFID communication removes the need for drivers to configure and install USB loggers.
- As the containers are moved through the warehouse and are delivered to customers in Medlog's vehicles, all temperature data is automatically stored on the RFID tags.
- On arrival at the destination, the driver downloads the data without needing to connect the data loggers to a PC.
- In case of unsafe temperatures, the driver and receiver have the info they need to take action and help protect the medicines.
- This Web-based system gives users an inexpensive way to track and trace their product for complete cold chain transparency and validation.



INSTALLATION

This RFID operation was installed in Medlog's 6 warehouses in Portugal containing product from 350 suppliers for shipment to over 1,000 customers. Medlog's installed RFID devices include over 100 [CAEN RFID Easy2log® Data Loggers](#), temperature monitoring sensors for use in shipping and storage. These low-cost, semi-passive tags sample and record temperature data in every link of the pharma

cold chain. The combination of a high-resolution sensor, EPC Gen 2 UHF RFID interface, large memory and alarm capability makes these data loggers an effective way to track and trace temperature sensitive products. CAEN RFID's Easy2log RFID tags are read and configured using a standard EPCGlobal-compliant RFID reader with no special commands or devices required.

USAGE

The first link of Medlog's cold chain is receipt of the medicines from its many suppliers. From then on the product has to be stored within the mandated temperature range. When a particular medication's cold chain needs to be tracked, a worker places an Easy2log RFID temperature tag inside an insulated transport product box to monitor it all the way to the customer. The box is then sealed and its tag activated via a handheld RFID reader's wireless link. From this point on, the tag records and stores the medicine's temperature every half-hour as the boxes move through the warehouse on a conveyor belt and throughout the trip to the customer.

Another two handheld readers accompany drivers on their route. On arrival to a customer, the driver checks for boxes with a packing slip to see if an RFID logger is inside that container, indicating it has temperature-sensitive products. If he finds one, he uses his RFID reader to view the tag's ID# and temperature history. This quick process gives customers proof of Medlog's best practices and also keeps drivers from having to open the boxes which would violate company policy. Additionally the RFID tags give Medlog more accurate temperature data than USB data loggers owing to the fact that they remain inside the product packaging. Workers can also collect data from multiple loggers simultaneously, even at long distance.

SOFTWARE

The Easy2log© software allows users to configure, control and download data from the temperature tags. [CAEN RFID](#) products also support integration with a web portal so that when users input the tracking number, they see the time, location info, and the entire temperature history from the shipment time to the checkpoint. This way Medlog personnel are able to show the temperature data to customers so that they can act to save any products at risk before they are lost, representing a substantial health and business benefit.

BENEFITS

Now every link in the pharma cold chain is accounted for. Medlog's RFID temperature monitoring setup ensures that drugs are kept at the proper temperature from the time they are received from suppliers until they are delivered to customers. CAEN RFID products have also been fully integrated with Medlog's cold chain validation software so that the company has seamlessly achieved full regulatory compliance at a low cost. RFID tags and readers are rapidly becoming the industry standard for temperature monitoring in the Pharma industry.

For further information on [CAEN RFID products](#), UNF RFID tags and desktop/handheld readers, pharma cold chain or to find the ideal solution for your application-specific needs, contact a CAS Data Logger Application Specialist at **(800) 956-4437** or www.DataLoggerInc.com.