SONY

SENSOS

Sensos Success Story

Sony and Sensos Partner to Revolutionize Smart Labels with Ultra-Low Power Modem

Sony Semiconductors and Sensos have collaborated to develop a groundbreaking smart label solution that addresses key industry challenges and delivers exceptional performance. Sony's ultra-low power ALT1250 modem powers the credit card-sized, paper-thin Sensos label and provides a highly secure, fully-integrated cellular IoT solution with superior capabilities for supply chain management and asset tracking.

Smart Labels Transforming Businesses

Smart labels are transforming the way businesses operate by providing critical insights and control in four main areas:

Traceability

Sensos smart labels track goods throughout the supply chain, offering real-time updates on location and movement. This enhanced traceability means that predicted estimated time of arrival is more accurate and provides enhanced security to prevent gray market issues. The wide coverage of LTE-M and NB-IoT, enabled by the Sony ALT1250 modem, ensures seamless tracking across borders, which makes it easier for companies to support Environmental, Social and Governance initiatives with improved supply chain monitoring.

Condition Monitoring

Sensos' smart labels are equipped with advanced sensors to monitor the condition of goods to ensure their safety and prevent damage. The ALT1250 modem's low power consumption allows for extended monitoring periods without the need for frequent battery replacements so that product integrity — critical in pharmaceuticals, food, and manufacturing — is always protected.

Inventorying

With Sensos smart labels, businesses can automate inventory management and access real-time stock level information. The compact design of the smart labels, made possible by the ALT1250 modem, makes it easy to integrate with various goods, ultimately reducing warehousing space, preventing revenue loss, and streamlining processes.

Usage

By collecting data on product usage, Sensos smart labels help businesses understand customer behavior. The comprehensive integration of iSIM, GPS, and dual-mode LTE-M & NB-IoT protocols in the ALT1250 modem provides the necessary functionality for advanced usage analytics so that companies can offer personalized promotions, optimize billing, and develop new products and services.

The Challenge: Traditional Cellular Chipsets Compromised Efficiency

Supply chain tracking is a major challenge for logistics companies. When cellular trackers first came online, they were celebrated as a major innovation. But companies quickly discovered that integrating cellular chipsets meant creating bulky labels that compromised efficiency. Packages couldn't be stacked easily. Extra storage room was needed. And the devices themselves couldn't be approved for flights.
Operations teams constantly ran up against usability and efficiency issues: some chipsets required different hardware designs for each region. Costs and complexity continued to rise. And maintaining power for the trackers brought a host of new challenges.

Our Solution: Ultra-Compact, Power-Efficient Smart Labels

By partnering with Sony, Sensos has developed a state-of-the-art smart label solution that is both compact and power efficient. The integration of Sony's ALT1250 modem—an ultra-low power, ultra-small, highly secure, and fully integrated cellular IoT solution—enables our smart labels to deliver outstanding performance.

Link your shipment..

..To Sync Control Tower

Compact Design
Sensos' smart labels are the size of a credit card and paper thin, thanks to the small form factor of the ALT1250 modem. They're as simple to apply as standard labels, making integration effortless.

Power Efficiency
The ultra-low power consumption of the ALT1250 modem ensures extended battery life, making the labels practical for long-term use. LTE-M technology offers superior power efficiency compared to traditional cellular technologies like Cat 1/cat 1bis.

Enhanced Usability
Our smart labels can be easily placed outside parcels and comply with flight regulations, thanks to the compact design and power efficiency of the ALT1250 modem.

Superior Performance in Challenging Environments
LTE-M & NB-IoT technologies offering better coverage in challenging cellular network environments like garages, underground storing and more. while in other technologies like cat 1bis, connection might disconnect.

Comprehensive Integration and Global design
The ALT1250 modem combines iSIM, GPS, and dual-mode LTE-M & NB-IoT protocols in a single chipset for advanced location tracking and connectivity capabilities. This modem also supports all frequency bands with a single hardware design (OneSKU) that further simplifies global deployment.

OUTCOME:
ADVANCED SMART LABEL CAPABILITIES TO SUPPORT EVOLVING SUPPLY CHAINS

By leveraging Sony's advanced ALT1250 modem, Sensos has created a smart label solution that meets the evolving needs of supply chain management. The global coverage of LTE-M and NB-IoT, enabled by the modem's OneSKU technology, ensures seamless tracking and connectivity across borders. The ALT1250's ultra-low power consumption allows long-term use. Its compact design means Sensos smart labels can be used in place of traditional labels anywhere.

By partnering with Sony and incorporating the ALT1250 modem into its smart labels, Sensos is able to offer a highly reliable, efficient, and versatile smart label tracker that enhances traceability, condition monitoring, inventorying, and usage analytics across industries. LTE-M's 5G-ready architecture means that Sensos' smart labels will stay connected even as wireless infrastructure evolves.