MOKOSMART & Silicon Labs Partnership: Revolutionizing Cold Chain Monitoring with Next-Gen Temperature Sensors

In this era where supply chains are rapidly evolving, one important sector, cold chain transportation, is undergoing a significant transformation. Critical for transporting perishable goods like fresh foods or medical products, cold chain transportation has surged significantly, driven by rising consumer demands and increasingly strict regulatory standards. According to industry research, the global cold chain market is experiencing strong growth, rising from $228.3 billion in 2024 to $372 billion by 2029 with a robust CAGR of 10.3%.

As the industry develops, the transparency and real-time visibility of temperature-sensitive transportation have gradually emerged as vital pain points throughout the entire cold chain process. To address these challenges, MOKOSMART, a pioneer in IoT hardware solutions, and Silicon Labs, a global leader in secure and intelligent wireless technology, have announced a strategic partnership to launch two innovative Bluetooth beacons, the M4 Pro and S05T temperature loggers, aiming to making contributions in the current situation of cold chain transportation.

A Synergy of Expertise: Bridging Hardware Innovation with Wireless Precision

In this partnership, MOKOSMART brings its rugged and scalable IoT devices experiences while Silicon takes out the cutting-edge BG22 SoCs, renowned for the ultra-low power consumption and high-performance capabilities. By integrating the BG22 SoCs to MOKOSMART robust hardware, M4 Pro and S05T temperature loggers could achieve longer battery life using just a compact battery.

Designed to work well in cold chain environments, both M4 Pro and S05T beacons offer real-time temperature tracking with a high accuracy to ±0.5°C. Each device could store at least 60,000 groups of data, making them ideal for cold chain transportation applications. Key features include:

- **Ultra-low Power Consumption:** Adopting the BG22 SoC, the sensors demonstrate exceptional energy efficiency. Featuring ultra-low transmit and receive power, and a high-performance M33 core, BG22 helps products to deliver industry-leading energy efficiency – even extend coin cell battery life to two years.
- **Compact & Rugged Design:** With space-saving form factor, both M4 Pro and S05T could be installed easily to the surface of various assets and achieve inconspicuous tracking. Their IP67 rating enclosures protect them against dust and extreme environments, making both ideal choices for refrigerated trucks and pharmaceutical storage.
- **Seamless Location & Temperature Connectivity:** Utilizing Bluetooth Low Energy (BLE) technology, these sensors could transfer precise temperature data via Bluetooth network in real-time. Via cloud platforms, users can access data at any given time. Once the temperature shows a changing trend, any deviation could be perceived promptly, enabling timely actions to be taken to avoid asset losses.

These innovative sensors not only offer unparalleled accuracy and reliability in temperature monitoring but also empower businesses with real-time data insights and proactive alerting capabilities. Thanks to these advantages, both M4 Pro and S05T temperature sensors could make contributions in various cold chain applications, from food distributors ensuring freshness during long-distance transport to medical companies protecting vaccines and pharmaceuticals.

Executive quotes

“From our aspects, cold chain operators need solutions that are not only reliable but also sustainable,” said Jerry Li, cofounder of MOKOSMART. “Our collaboration with Silicon Labs combines their world-class wireless expertise with our deep understanding of industrial IoT applications. The cooperative temperature sensors can deliver unmatched accuracy, longevity, and ease of deployment, empowering businesses to be aware of any temperature fluctuations and safeguard their assets better.”

“Ensuring that temperature-controlled goods like life-saving medication and food reach their destinations without spoiling is critical, said Mikko Savolainen, Senior Product Line Director for the Commercial Business Unit at Silicon Labs. “Our partnership with MOKOSMART addresses this crucial and growing market with best-of-breed technology for our customers.”

Looking Ahead

This partnership underscores both companies’ commitment to promoting IoT technologies to address real pain points. Both sensors are aimed to play vital roles in ensuring the integrity and safety of transported perishable goods. As the cold chain market continues its rapid expansion, MOKOSMART and Silicon Labs remain dedicated to pushing the boundaries of technology and actively addressing the challenges faced in the real world.

About MOKOSMART

MOKOSMART is a leading manufacturer and provider of ODM, OEM, and IoT devices in China. The company specializes in IoT technology and offers a comprehensive range of products, including BLE, LoRaWAN, Wi-Fi, RFID, GPS, LTE, UWB, and other wireless technologies. MOKO SMART's commitment to innovation and diverse wireless solutions paves the way toward a connected future.

About Silicon Labs

Silicon Labs (NASDAQ: SLAB) is the leading innovator in low-power wireless connectivity, building embedded technology that connects devices and improves lives. Merging cutting-edge technology into the world's most highly integrated SoCs, Silicon Labs provides device makers with the solutions, support, and ecosystems needed to create advanced edge connectivity applications. Headquartered in Austin, Texas, Silicon Labs has operations in over 16 countries and is the trusted partner for innovative solutions in the smart home, industrial IoT, and smart cities markets. Learn more at www.silabs.com.

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