
Positive ID - Innovation for Diabetes Management

Mobile Healthcare Solution, Powered by Sierra Wireless AirPrime Embedded Modules, Revolutionizes Diabetes Management



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PositiveID Corporation develops unique medical devices and biological detection systems, focused primarily on diabetes management, rapid medical testing and airborne bio-threat detection.

Its HealthID Division develops healthcare and information management products through its diagnostic devices and identification technologies, and its proprietary disease management tools. PositiveID's products are designed to improve healthcare and the patient's quality of life by allowing easy immediate health management for physicians and a more effective tracking for the patient, thanks to wireless communications.

Business challenge

With modern advances in medical care, most people with diabetes can now manage their condition effectively and live otherwise normal, healthy lives. To stay on top of diabetes, however, patients need to closely track their blood glucose levels.

“For people who have diabetes to get the best care, it is helpful for their healthcare professional to understand the blood glucose level trends that occur on a daily basis,” says Mary Ellen Harrison, vice president, PositiveID. “Today, for most patients, the only way to do that is to keep manual logs of glucose levels and take those records to their doctor. Unfortunately, because the process is so time-consuming, few people actually do it.”

PositiveID aims to change that with iGlucose[™]. The smartphone-size device connects to market leading data-capable glucometers and wirelessly communicates blood sugar readings to a cloud-based database, accessed by patients and healthcare providers. To make this happen, PositiveID needs secure, reliable cellular connectivity.

“This is a medical device, so high quality is critical,” says Harrison. “We also need a wireless module that provides good battery life in a small footprint to keep the form factor small. To make iGlucose accessible to as many users as possible, we also want to keep the price low, without sacrificing quality.”



Sierra wireless AirPrime Embedded Wireless Module

PositiveID considered several cellular suppliers. After an exhaustive analysis, Sierra Wireless AirPrime embedded modules emerged as the ideal solution. iGlucose is not yet approved by the FDA for sale in the United States. "When you are submitting a medical device for approval to the U.S. Food and Drug Administration, it's very important that you choose high-quality suppliers," says Harrison. "It's very helpful to partner with a company like Sierra Wireless that has so much credibility in this technology."

The iGlucose devices use AirPrime embedded GSM modules to securely communicate with the cloud-based iGlucose database. The AirPrime embedded modules seamlessly integrate hardware, software, and services, simplifying PositiveID's development. In fact, PositiveID began working with Sierra Wireless in January 2011 and had a working product to demo less than three months later. By providing AirPrime embedded modules that are already certified and deployed in more than 30 countries, Sierra Wireless also helps accelerate time-to-market.

"Anytime someone contacts us about deploying iGlucose in a new country, we find that the Sierra Wireless module is already approved with the local carrier," says Harrison. "We recently had an opportunity in Brazil. Within two weeks of the initial inquiry, we received confirmation that the AirPrime GSM module was approved and ready for sale there."



Results

The combination of iGlucose devices and AirPrime wireless communications is helping to transform diabetes management, empowering people with diabetes and those who care for them. Authorized physicians can immediately take proactive steps to correct problems and parents can receive messages and alerts about their child's health status. The AirPrime modules benefit PositiveID by providing:

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- Reliable, high-quality wireless connectivity suitable for a medical device
 - Easy-to-integrate wireless technology that simplifies development
 - Small form factor to enable a portable, compact solution that can be used anywhere, anytime
 - Low power consumption to optimize the device's rechargeable battery, allowing it to stay charged for up to one week
 - Strong carrier relationships and global expertise to accelerate time to market with proven track record solution in m-health

Solution:

- Sierra Wireless AirPrime embedded wireless module

Key Benefits:

- Reliability and high quality
- Easy integration and simplified development
- Fast rollout to global markets