

Miniature GPS module improves location capabilities for health monitoring



We work with all types of businesses integrating wireless modules into both existing product and new product developments.

Our technical expertise and long-standing relationships with the world's best manufacturers allows us to recommend a wide range of M2M products to meet the most demanding applications.

Working with Buddi, a leader in the field of assistive technology, Acal BFi designed-in a compact, low power GPS module into a mobile personal emergency alarm system.

About the project

Buddi is the go anywhere, anytime response service that uses assistive GPS to give caregivers and families peace of mind. The alarm, which works outside the home and even abroad, alerts remote family members of a person's falls, location, and overall well-being, enabling older people to remain independent for longer.

The system consists of a waterproof wristband which traces movements of the wearer, and a portable clip carried in a pocket or handbag. If the wristband detects a fall via its accelerometer technology, it will communicate the movement to the clip, which will then send an alert and location to a 24-hour monitoring service. A representative will talk to the user and notify emergency contacts. It also allows for those wearing it to manually alert a caregiver or family member when in need or to speak directly with an emergency line for assistance.

buddi

OriginGPS
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Challenges of a wearable device

In order to add accurate tracking technology to a wearable application, Buddi required a highly sensitive GPS receiver with a miniature footprint and minimal power consumption.

The Acal BFi - OriginGPS solution

Working closely with the in-house team at Buddi, Acal BFi engineers solved the three key challenges and utilised a module from the OriginGPS "Spider" family.

- The module delivers outstanding performance and sensitivity with a rapid time to first fix (TTFF) of less than one second and -163dBm tracking sensitivity.
- A 7 mm x 7 mm footprint made it ideal for the limited space available within the wristband.
- By detecting changes in context, temperature, and satellite signals, the module achieves a state of near continuous availability, while consuming only microwatts of battery power.

The powerful location tracking technology provided by the module provides a precise location so that emergency contacts are able to arrive for help at the push of a button.

Positive outcome for Buddi

We constantly work with manufacturers such as OriginGPS, who remain at the forefront of GPS technology, and match exceptional products with excellent service.

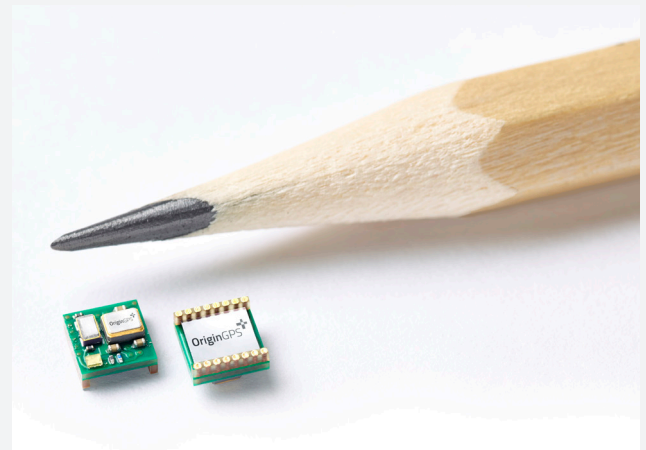
Our experienced team understands the latest in wireless technology developments, allowing them to identify the core requirements and design-in an appropriate solution.

"Buddi chose OriginGPS due to the compact size of the modules along with their low power consumption," said Charles Lewiston, Buddi's head of engineering. "Integration of the modules into the Buddi hardware platform was straightforward and, when needed, OriginGPS provided excellent technical support and advice."

"When a person's health is involved, there is no room for inaccuracy," said Gal Jacobi, CEO of OriginGPS. "OriginGPS is committed to making a difference for its customers, and in conjunction with Buddi, we can extend our technology to those who can really benefit from it. We are pleased that Buddi chose to entrust us with that very important task."

Continuous development

Since the success of the original Spider module, OriginGPS have launched the even smaller Nano Spider, which builds on the same high performance, low power technology. It can achieve accuracy of approximately one metre and has a footprint of only 4.1 mm x 4.1 mm.



The Nano Spider is the world's smallest GPS module

For more information on OriginGPS modules, and to find out more about our design-in capabilities, visit www.acalbfi.com

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