

Bed Sensor

## Offering a Bed Sensor Solution to Provide New Possibilities to the Healthcare Field

In line with our aging societies, there is a growing need for more patient-friendly, good quality and economical, long-term healthcare services. Coupled with the development of IoT and of cloud services, technology like remote monitoring is also beginning to spread throughout the medical and healthcare fields. And, in order to meet the needs of such markets, Murata is developing sensor solutions that provide new value through contactless patient monitoring.

By simply mounting it to the bed, our “Bed Sensor” is able to detect the slight vibrations coming from the patient’s body, thus enabling biological information to be obtained without the sensor being directly attached to the patient. Incorporating Murata’s ultra-sensitive, low-noise MEMS\* accelerometer along with a microcontroller with a special algorithm, the Bed Sensor contributes to reducing the workload in the healthcare field by being able to detect whether the patient is in or out of bed, measuring various types of biological

information, and transmitting that data wirelessly.

The Bed Sensor is a good example of Murata innovation targeting new areas of business, with its focus on the medical and healthcare markets as new fields of application for sensors that offer excellent and unique properties. Continuous research based on careful market research as well as work toward developing signal processing functions and algorithms have resulted in sensor circuits and wireless modules, not only for use by healthcare equipment manufacturers but for system integrators as well.

\* Micro-Electro-Mechanical Systems: Systems with a three-dimensional microstructure formed through a semiconductor process technology.

“With the development of the Bed Sensor, we have pioneered a new business for the medical and healthcare markets that are a focus of Murata’s business strategy. We also have high interest in the utilization of such emerging applications as sleep analysis, and are developing new add-on functions to meet those demands,” says Mr. Sten Stockmann (Manager, New Business Development Department).

## Successful global cooperation

Although development of the Bed Sensor began with Murata Electronics Oy in Finland, it was ultimately a global collaboration that involved Murata (China) Investment Co., Ltd. and SyChip Electronic Technology (Shanghai) Ltd., both of China, along with Japan’s Komatsu Murata Manufacturing Co., Ltd.



Photo (front row, from left)  
Murata Electronics Oy  
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People-friendly Murata technology is contributing to the evolution of medicine and healthcare.

Murata’s Bed Sensor offers contactless detection, thus reducing patient stress.



## SCA10H sensor module

Comprised of a sensor and microcontroller, the SCA10H sensor module is designed for healthcare device and equipment manufacturers to incorporate into their own products or into hospital beds. It enables the creation of the optimal solution through the combination with various wireless modules.

