

## High precision Quartz Sensors

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I introduce precision Quartz sensors developed using quartz crystal MEMS technology, and its application. At the Ueda laboratory, we have developed 1 axis and 2 axis (level) inclination sensors which have very high sensitivity of  $1 / 1000 - 1/10000$  °. The developed general-purpose inclination sensors were very as small as 40 g, and connectable with a tablet by USB or wireless (Bluetooth 4.0). Taking advantage of high sensitivity and small size, we applied the developed inclination sensors to the landslide monitoring systems and the public infrastructure superannuation surveillance systems.

In addition to sensors mentioned above, I also introduce the hydrogen sensors which we are developing in our laboratory. Because, it is very important sensor for future hydrogen society. Japan government is going to plan 200 or more hydrogen station construction in five to ten years.