**Dual-axis accelerometer**

An accelerometer measures the degree to which a device is in an accelerated frame of reference. It is key to navigation systems, in which motion can be determined by integrating the vector acceleration with respect to time, then again the vector velocity can be integrated to determine change of position.

The advent of micro electro mechanical systems (MEMS) has opened a remarkable new world of device technology. In the device approach that we provide, a tiny heater filament is supported in a domed cell of gas. An array of thermistors measures the temperature at 4 symmetrical points in the dome. As the device experiences any acceleration, the hot gas rises to a deflected location, producing a shift in the pattern of temperatures at the 4 thermistors. By fabricating these devices on microscale with precise control of materials and geometry, it has become possible to make superbly sensitive accelerometers.

We provide a 2-axis accelerometer that measures accelerations up to 3g.