To develop robots, smart agriculture and drones, accurate motion capture sensors are central to success. The requirements for high precision, long mission life and high reliability are not provided by standard consumer solutions. Analog Devices has developed the ADIS16460 for these applications, which they call the Internet of Moving Things.

The ADIS16460 is a 22.4mm × 24.2mm × 9mm module targeted for applications such as platform control, navigation, robotics, and medical instrumentation. Mixing technologies developed for military use and harsh environments, the ADIS16460 is a 6-axis Inertial Measurement Unit (IMU) with ±100°/sec digital gyroscope sensing and a 5g accelerometer. It uses low-cost MEMS technology based on Analog Devices iMEMS® process, with a new cap sealing technology used for the gyroscope MEMS.

In order to produce a small and economical module, Analog Devices uses a very smart design and assembly process. This design allows ADI to reuse components from its portfolio and thus to optimize manufacturing cost.

The report contains a detailed physical analysis with process descriptions and manufacturing cost analysis. It also includes a full comparison between Sensonor’s STIM210 and the ADIS16136.
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