Silicon Sensing CMS300 is a combo sensor device used in automotive and industrial applications. The CMS300 presents a unique Gyro ring structure covered by piezoelectric film actuator/transducers and suspended on the ASIC die by a pedestal. The accelerometer has a very specific structure with glass layers and TGV to compact the final size.

Silicon Sensing CMS300 is part of the Orion Family combined accelerometer and gyroscope sensor devices used in tough environments. The component has excellent bias over temperature, high shock and vibration rejection and combines single-axis angular rate and dual-axis linear acceleration measurement.

Silicon Sensing proposes a 10.4x6.0x2.18mm device. The device presents one ASIC, one MEMS GYRO and one MEMS ACCELERO stacked on a ceramic substrate and connected by wire bonding.

The CMS300 features independent acceleration and angular rate sensing elements designed by Silicon Sensing and manufactured in Sumitomo Precision Products fab in Amagasaki, Japan.

The Gyroscope is a unique patented ring manufactured using DRIE Bulk process and composed of piezoelectric film actuators/transducers. The accelerometer element consists of one-piece resonating silicon MEMS structure anodically bonded to top and bottom glass substrates and connected by TGV (Through Glass Vias). A single ASIC produced with an CMOS 0.35µm process is used.

The report includes a comparison with Murata SCC2000 Series X or Z-Axis Gyro & 3-Axis Accelerometer.
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