

# Inertial Systems

MEMSIC's inertial systems provide end-users and systems integrators with fully-qualified MEMS-based solutions for measurement of static and dynamic motion in a wide variety of challenging environments, including; avionics, remotely operated vehicles, agricultural and construction vehicles, automotive test and wind power turbines.

MEMSIC's success in developing innovative sensor modules and integrated sensing systems is the result of its combined expertise and intellectual property in sensor characterization, MEMS sensor integration algorithms, and market-specific operational and performance requirements. In addition, MEMSIC's inertial products are designed and tested to meet industry-standard and/or customer-specific environmental requirements, and many are approved for safety-critical applications by government agencies such as the Federal Aviation Authority (FAA).

MEMSIC's stand-alone sensor modules include a selection of cost-effective single-axis and three-axis MEMS accelerometers (GP, TG) and single-axis and dual-axis MEMS tilt sensors (CXTA, CXTLA, CXTILT), all with signal-conditioned outputs and small and easy to mount environmental packaging. MEMSIC also offers a family of three-axis magnetometers (CRM, CHS) that provide highly accurate sensing of local magnetic field through all orientations.

MEMSIC's integrated sensing systems uniquely combine best-in-class MEMS accelerometers, MEMS (or FOG) gyroscopes, magnetometers and GPS technology, high-speed DSP and patented Kalman filter algorithms. MEMSIC's integrated sensing solutions span a broad range supporting the needs for cost-effective entry-level inertial measurement units (IMU) through Vertical Gyros (VG) and high-end fully-integrated GPS-aided Attitude & Heading Reference Systems (AHRS/NAV).