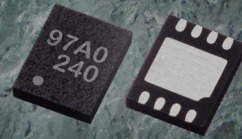




MLX90397

MICROPOWER TRIAXIS®

3D MAGNETOMETER



Salmon represent our magnetic sensors because of the use magnetism for their sense of direction. This sense of direction is so strong they even can climb waterfalls.

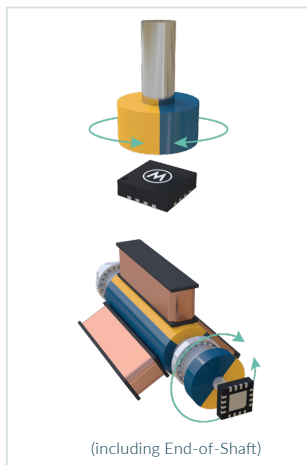
MAGNETIC FIELD SENSOR FOR BATTERY POWERED APPLICATIONS

The MLX90397 expands the Triaxis® Hall magnetic-sensing technology to cost-conscious white goods, gaming, home-security and industrial sectors. It is especially suited for battery-powered applications

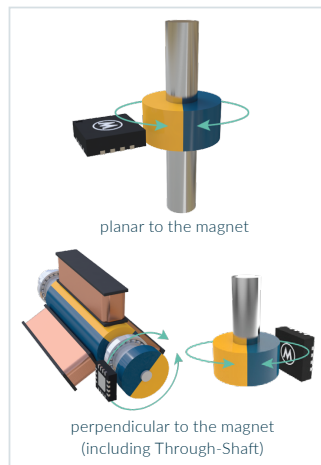
MLX90397

The MLX90397 is a 16-bit 3-axis sensor device that has a magnetic field range reaching 50mT (with an adaptive range on the z-axis of up to 200 mT). it allows the user to choose the fields to measure among Bx, By, Bz, temperature or a combination. With its wide supply voltage (1.7 ~ 3.6 V) and low power consumption of typ. 7 nA, the MLX90397 is ideal for battery-powered applications.

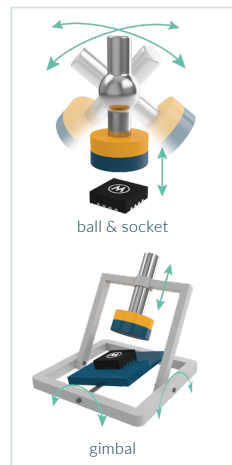
On-axis



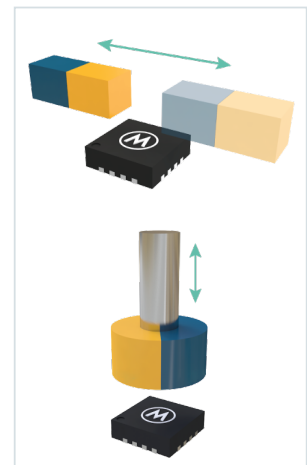
Off-axis



Joystick



Linear



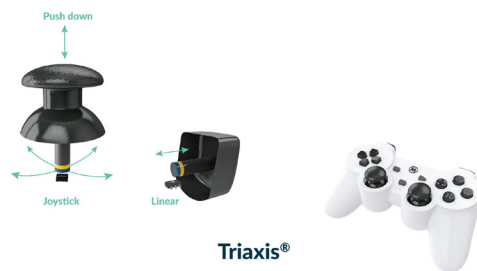
KEY FEATURES

- ✓ Suitable for space constrained applications
 - UTDFN-8 package (JEDEC qualified) 2 x 2,5 x 0.4 mm
- ✓ Programmable parameters on the fly
 - B_x , B_y , B_z , temperature or a combination.
 - Filtering
 - Selectable operating modes: single measurement or continuous mode up to 1.4 kHz (XYZ)
- ✓ Micropower
 - Power down current of typ. 7 nA
 - Supply voltage range 1.7 ~ 3.6 V
- ✓ Digital 16-bit Output for magnetic and temperature (XYZT)
- ✓ Triaxis® Hall technology for best-in-class noise with typ. 2.2 μ T for 5 ms conversion time
- ✓ Compatible with I2C (0.1, 0.4 or 1 MHz)
- ✓ Ambient temperature range from -40 °C to 105 °C

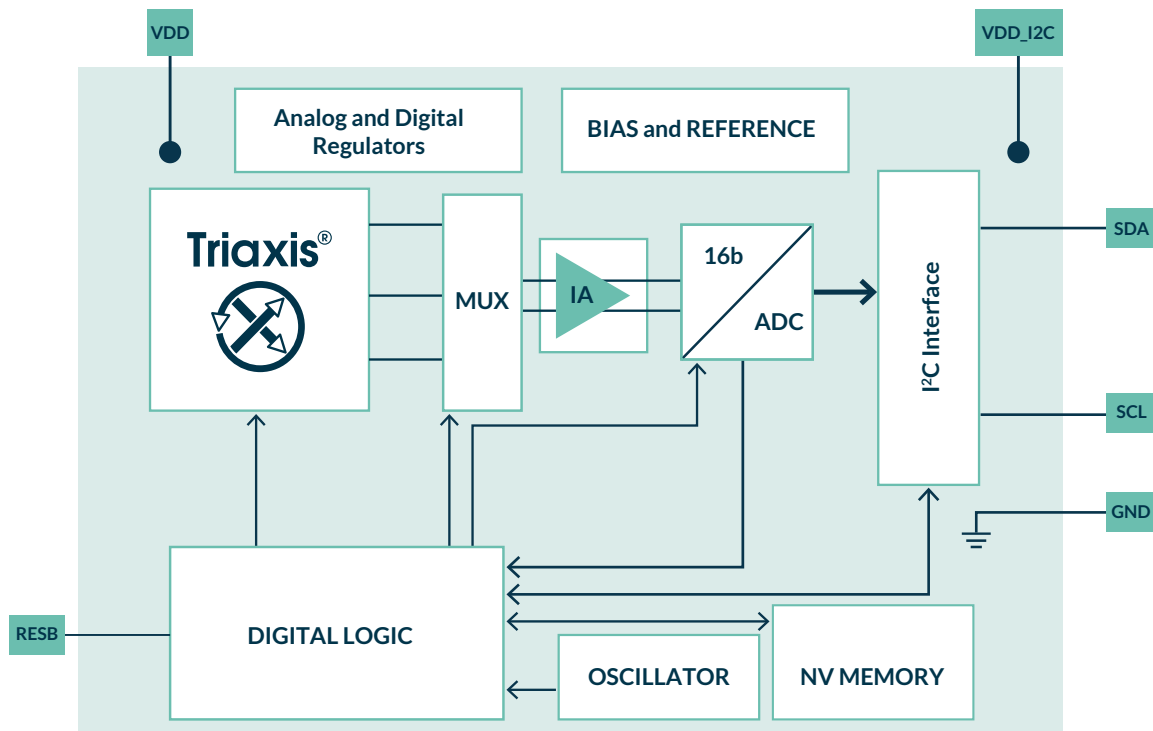


APPLICATIONS

- ✓ Power tools - Screwdriver trigger
- ✓ Home security- door window intrusion
- ✓ Knobs for White goods
- ✓ PC peripheral – Mouse roller
- ✓ Gaming joystick
- ✓ Anti-tamper for energy metering



APPLICATION DIAGRAM



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