

MLX90378

TRIAxis® GEN III

3D AND JOYSTICK
POSITION SENSOR



Thanks to its magnetic compass the fascinating honey bee has the ability to perceive the omnipresent magnetic field (MF) of the Earth. This magnetic field sensitivity matches this wonderful creature with our Triaxis® magnetic sensors.

3D AND JOYSTICK MAGNETIC FIELD SENSOR

The MLX90378 is the newest addition to the Melexis position sensing portfolio bringing full 3D sensing to the Triaxis® family. Featuring a SENT or dual PWM output signal, the MLX90378 supports a wide variety of automotive position sensing applications from shifters to transmission sensors to human-machine interfaces.

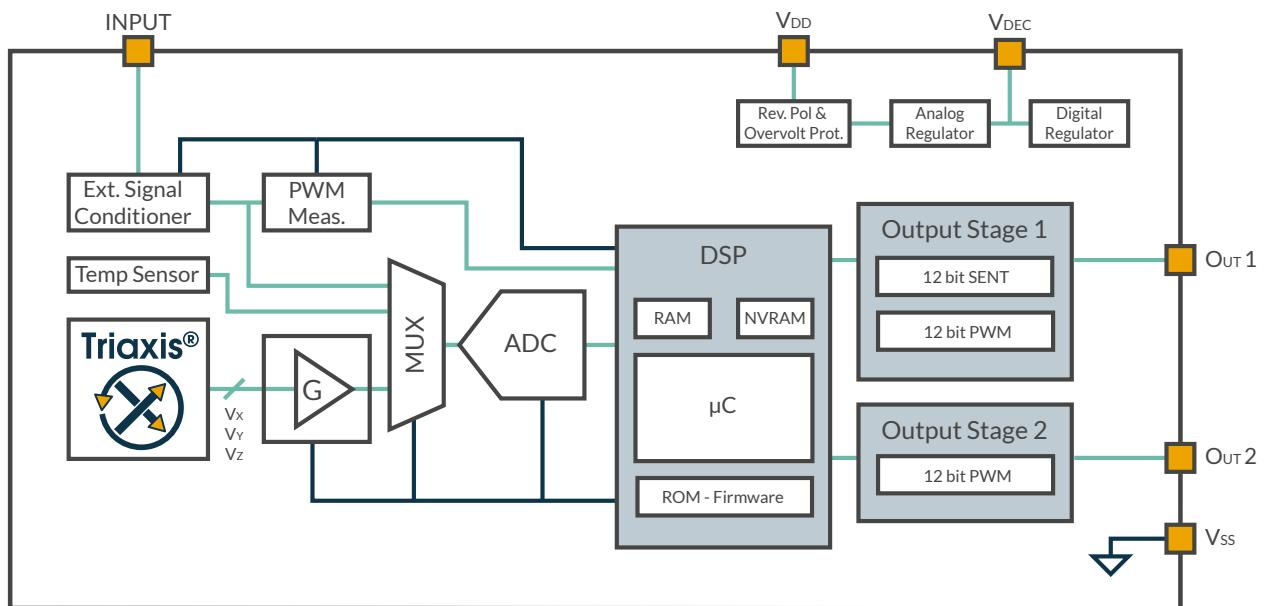
KEY FEATURES

- ✓ 3D / joystick position sensing
- ✓ Two angle outputs: forward/backward & left/right
- ✓ Magnet push/pull detection
- ✓ XYZ output optional via SENT output
- ✓ Extra input pin for reading additional signals (e.g. mechanical switch)
- ✓ ASIL-C (SEooC) component
- ✓ $T_a = -40 \dots 160^\circ\text{C}$
- ✓ In-application programmable
- ✓ Highly flexible and robust position sensor
- ✓ SENT or dual PWM output
- ✓ EMC capable to automotive OEM requirements
- ✓ SOIC-8, single-die package
- ✓ TSSOP-16, redundant dual-die package

APPLICATION VISUALS



BLOCK DIAGRAM



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