16-BIT TRIAXIS® HIGH-SPEED ENCODER IC

MLX90382

The MLX90382 is a compact, absolute magnetic encoder IC. It features stray field immunity, supports both on-axis and off-axis sensing, 16-bit resolution, differential outputs and a speed range of up to 200k e-RPM

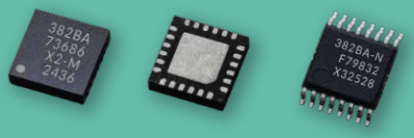


on- or off-axis

Pos

Key features

- 16-bit High-speed magnetic encoder
  - Absolute Angle Position
  - Speed Tracking up to 200k e-rpm
- On-Chip Signal Processing with zero latency
- Operating range
  - Temperature from -40 °C to 150 °C
  - Supply for 5 V and 3.3 V applications
- 360° stray field immunity up to 4 kA/m
- Multiple output modes:
  - SPI/SSI/PWM
  - Single-ended and differential ABI/UVW
  - Synchronized readout of multiple devices via SPI
- Triaxis® Hall Technology for on- or off-axis mounting
- Programmable Linear Transfer Characteristic with up to 16 points
- Industrial Certification
  - SIL-2 compliant
- Automotive Certification
  - AEC-Q100
  - ISO 26262 ASIL B(D) SEooC
- Packages RoHS-compliant
  - Single-Die - QFN-24
  - Dual-Die - TSSOP-16





Applications

- Robotic joints
- Weaving Machine Motors
- E-Mobility motors
- Industrial Automation
- Automotive Motor control
  - Electric steering
  - Power brakiing
  - Active suspension

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The datasheet specification prevail

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