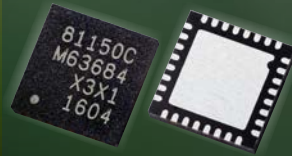




MLX81150 / MLX90363 / MLX81106

COMPACT SOLUTION

FOR SMART  
SYNCHRONIZED  
ACTUATORS



The hummingbird's beating wings flap at extremely high frequencies, typically around 50 times per second. This allows it to fly at speeds exceeding 15 m/s, to fly backwards or to seemingly be suspended in the air in perfect balance. What better animal to reflect the motor/control driver and actuator capacities?

## CONNECTING SMART ACTUATORS

Some automotive applications require a synchronized robust actuator solution for 2 or more motors, like the dual-wiper application. Melexis can offer a solid solution with its long experience on smart motor drivers, robust sensors and easy LIN communication interface.

### KEY FEATURES



- ✓ MLX81150: smart LIN motor driver
  - Internal RC-Oscillator
  - Primary LIN interface to communicate with automotive ECU or next MLX81150 driver
  - 4 PWM driver outputs to power accurately a DC motor with a 4x FET bridge
  - IC is powered directly by 12V battery, IC can power low-voltage sensors
  - SPI interface to connect with smart sensor MLX90363
  - SPI interface to connect with 2nd LIN bus using MLX81106 gateway
- ✓ MLX90363: robust 360-deg Triaxis® sensor with digital output
  - Sensor is delivered fully calibrated over voltage and temperature
  - Sensor gives position readings and full diagnostic feedback to MLX81150 over SPI
- ✓ MLX81106: smart LIN gateway
  - Smallest and low-price SPI-to-LIN gateway in SO8 package
  - IC receives LIN messages from 1st MLX81150, and transfers to 2nd MLX81150 IC
- ✓ Total solution for synchronized actuators
  - High accuracy of positioning
  - Full diagnostics feedback for failsafe operation
  - Operation from -40°C to +150°C
  - Fast sensing and communication of two positions, allowing fast synchronization
  - MLX81150 and MLX81106 come with ready-to-use LIN communication software



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