

Features

- Single 5 Volt Power Supply
- Externally Configurable $\pm 50A$ Bi-Direction Current Sense per Turn
- 12-Bit Serial Digital Output
- Full Scale Magnetic Flux Intensity of $\pm 500Gauss$
- 2K Conversions/Second
- Microcontroller Compatible
- Standard 3 Wire Serial Interface plus ChipSelect
- In System Calibration: OTP Full Scale Trim via the Serial I/O Port
- Programmable Digital Filter Time Constant
- 8 Lead DFN package RoHS Compliant

Applications

- Load Detection and Management
- Motor Control
- Power Supplies

Ordering Information

Part No.	Description	Qty
MX868R	DFN-8 Tube	91
MX868RTR	DFN-8 Tape & Reel	2500

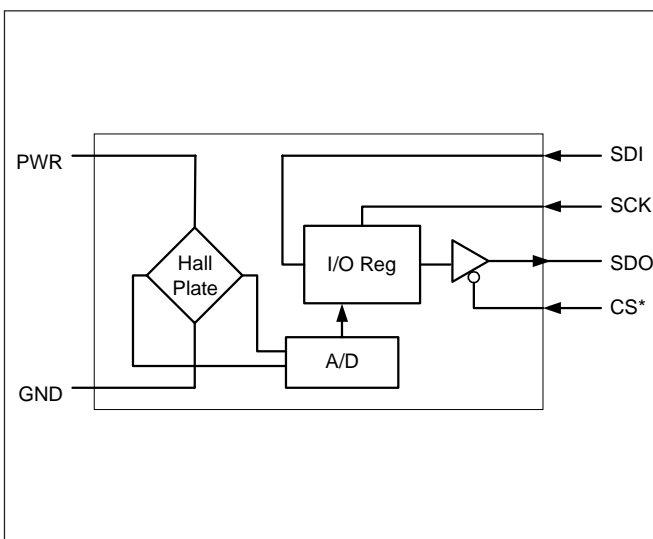
General Description

The MX868 is a 12 Bit Digital Output Magnetic Flux Sensor. The device is a complete sampled data subsystem that converts a magnetic flux intensity of ± 500 Gauss full scale into a 12-bit digital output word. The sensor operates as a slave on the serial interface with TTL-level compatible inputs SDI (serial data input), SCK (serial clock), and CS* (chip select, active low). Terminal SDO is the tri-state serial data output.

An adjustable exponentially weighted moving average digital filter is included that is capable of improving the signal to noise ratio while reducing the signal bandwidth. The full scale trim and/or the digital filter time constant are controllable through the serial I/O interface and are one-time programmable through the serial interface (once programmed, the values are loaded at every power-on).

The MX868 can be mounted onto a PCB or incorporated into a magnetic assembly and then calibrated in-system through the serial interface. The operating voltage range is 4.5V to 5.5V.

Functional Block Diagram Typical



Application Circuit

