

Product Information

MLX90129

13.56MHZ SENSOR TAG IC

The MLX90129 combines a precise acquisition chain, internal temperature sensor, interface for external resistive sensors, SPI port and a RFID tag front-end.

Description

The MLX90129 combines a precise acquisition chain for external resistive sensors, with a wide range of interface possibilities.

It can be accessed and controlled through its ISO15693 RFID front-end or via its SPI port.

Without any other component than a 13,56MHz tuned antenna, it becomes a RFID thermometer.

For measuring others physical quantities, one or two resistive sensors can be connected to make batteryless sensing point. In this tag mode, the chip can supply a regulated voltage to the other components of the application.

Adding a battery will enable the use of the standalone data logging mode. The sensor output data is stored in the internal 3.5kbits user memory. One can extend the storage capacity by connecting an external E2PROM to the SPI port.

The SPI port can also connect the MLX90129 to a microcontroller which allows more specific applications, like adding actuating capability or RF transmission.

The MLX90129 has been optimized for low power, low voltage battery and battery-less applications.



Bus ICs

BLDC Motor
Control ICs

Pressure Sensors

Wireless ICs

Hall Effect ICs
And Sensors

Optoelectronic
Sensors

Sensor Interface ICs

Infrared Sensors

Features

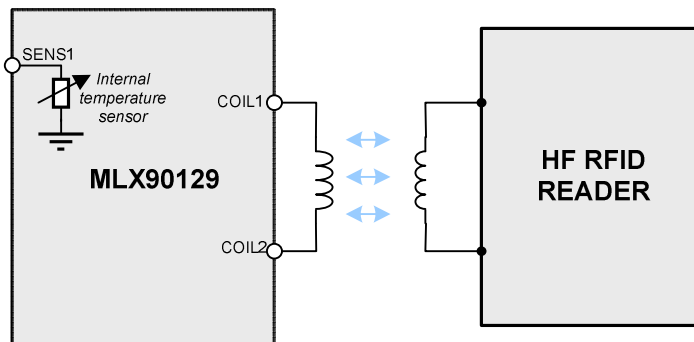
- Versatile A/D interface
- ISO-15693 13.56MHz transponder
- 4 k-bit EEPROM
- Standalone data-logging mode
- Ultra low power
- Battery or battery-less applications

Application example

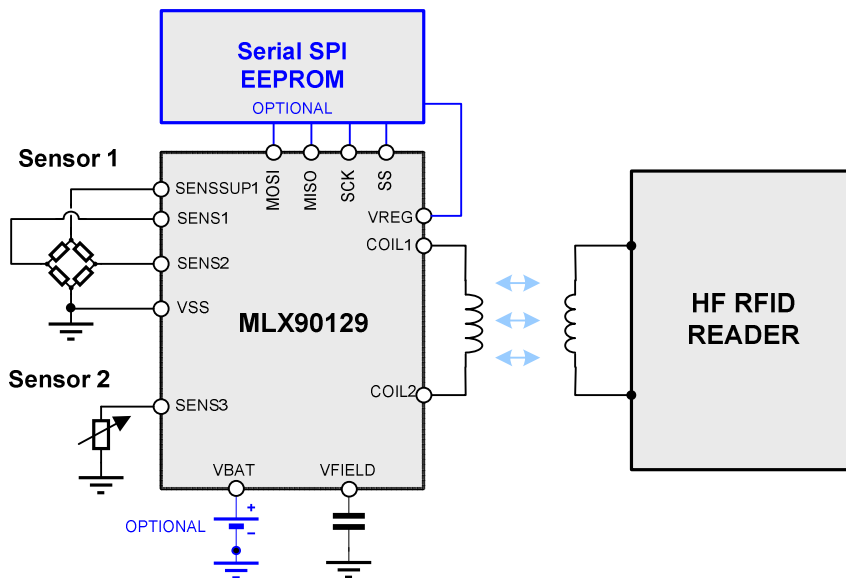
- Cold chain monitoring
- Asset management and monitoring
- Building automation
- Industrial and residential control
- Medical monitoring

Application schematics

Temperature Sensor tag



Data logger



For additional information email info@melexis.com or go to our website at: www.melexis.com



We Engineer The Sustainable Future

Melexis
Microelectronic Integrated Systems

Disclaimer:

Devices sold by Melexis are covered by the warranty and patent indemnification provisions appearing in its Term of Sale. Melexis makes no warranty, express, statutory, implied, or by description regarding the information set forth herein or regarding the freedom of the described devices from patent infringement. Melexis reserves the right to change specifications and prices at any time and without notice. Therefore, prior to designing this product into a system, it is necessary to check with Melexis for current information. This product is intended for use in normal commercial applications. Applications requiring extended temperature range, unusual environmental requirements, or high reliability applications, such as military, medical life-support or life-sustaining equipment are specifically not recommended without additional processing by Melexis for each application. The information furnished by Melexis is believed to be correct and accurate. However, Melexis shall not be liable to recipient or any third party for any damages, including but not limited to personal injury, property damage, loss of profits, loss of use, interrupt of business or indirect, special incidental or consequential damages, of any kind, in connection with or arising out of the furnishing, performance or use of the technical data herein. No obligation or liability to recipient or any third party shall arise or flow out of Melexis' rendering of technical or other services. ©2010 Melexis NV. All rights reserved.

Bus ICs

BLDC Motor Control ICs

Pressure Sensors

Wireless ICs

Hall Effect ICs And Sensors

Optoelectronic Sensors

Sensor Interface ICs

Infrared Sensors