

Freescale MEMS Sensors

Company Overview

Freescale Semiconductor is a global leader in the design and manufacture of embedded semiconductors for the automotive, consumer, industrial, networking and wireless markets. After more than 50 years as part of Motorola, we became a publicly traded company (NYSE:FSL, FSL.B) in 2004 and one of the newest members of the S&P 500®. Based in Austin, Texas, we have design, research and development, manufacturing or sales operations in more than 30 countries, and with 2004 sales of \$5.7 billion, rank as one of the world's largest semiconductor companies.

Micro-Electromechanical System (MEMS) Sensors

Since 1980, we've been a leading provider and high-volume manufacturer of MEMS-based pressure, inertial and proximity sensors. These sensor integrated circuits (ICs) complement our broad portfolio of ZigBee™ technology, microcontrollers, microprocessors, digital signal processors, analog ICs and development tools, to provide you with a complete system solution. ZigBee technology adapts well to a wide range of sensing, monitoring and control applications for home automation and industrial control.

MEMS sensor products feature an interface that can sense, process and/or control the surrounding environment. The technology offers multiple advantages—cost efficiency, low power, miniaturization, high performance and integration—which is why MEMS is now embraced by every major market. Functionality can be integrated on the same silicon or in the same package, reducing component count and contributing to overall cost savings.

Target Applications

MEMS-based sensors are a crucial component in automotive electronics, health care monitoring equipment and smart portable electronics, such as cell phones, PDAs, hard disk drives, computer peripherals and wireless devices. In automotive safety enhancement, acceleration sensors provide crash detection for efficient deployment of airbags and other safety devices. Pressure sensors reveal key patient diagnostics in specialized health care monitoring applications. And in cell phones, MEMS products activate different features by using more natural hand movements, such as tilting rather than button pushing.

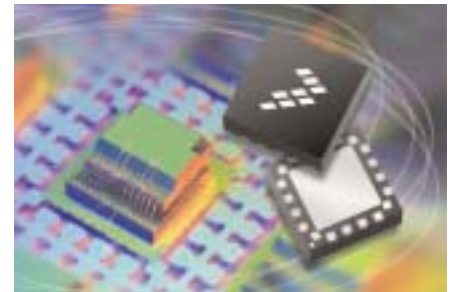
Recent Developments

The MMA7260Q, our newest acceleration sensor, offers three axes of sensitivity in a single XYZ-axis device. Our broad portfolio of acceleration sensors ranges from 1.5g to 250g, and encapsulates X-, XY-, XYZ- and Z-axis movements.

For tire pressure monitoring, we created the new MPXY8000 series—pressure and temperature sensors integrated with an 8-bit microcontroller unit and radio frequency transmitter. Our entire line of pressure sensors ranges from 4 kPa to 1000 kPa (0.5 psi to 30 psi).

When it comes to packaging, our strategy is simple: Smaller is better. Package size—coupled with a wide range of sensitivities—contributes significantly to increased flexibility in the design of your applications.

—Silver Anniversary—
Freescale Semiconductor
SENSORS
25 Years



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