Sensing Solutions
A new era of sensing experience

Overview
For over thirty-five years, Freescale’s sensor products have helped make the world a safer and more interactive place with continuous sensor innovation. Globally, we have delivered more than 2 billion micro-electromechanical systems (MEMS)-based and CMOS state machine-based touch-sensing components and touch-sensing software on thousands of microcontrollers (MCUs).

Building on our heritage of sensor innovation, Freescale is proud to offer sensor products that go beyond translating a signal.

Increasing Levels of Intelligence
Freescale’s sensing solutions offer increased levels of modular integration combined with multiple sensor inputs, logic and other building blocks to bring greater value and decision making to the overall sensing solution. Multiple sensor inputs are leveraged within the platform to perform multiple application functions. With Freescale’s sensors, customers can choose among a wider range of scalable products at varying levels of integration, performance and price points.

Sensor Timeline
Freescale sensors feature customizable software that extends sensor use cases through algorithms and analysis to reduce complexity and provide processing assistance. Design time can be accelerated through use of common software platform and common tools, including the Sensor Toolbox, Freedom Development Platform Sensor Boards, Intelligent Sensing Framework (ISF) and CodeWarrior. Program and innovate with software for sensor platforms that allow you to design exactly what you want and need the application to be.

**Increasing levels of integration**
- Multiple sensor types
- Connectivity
- Power management
- Logic
- Actuation

Creating new technologies that can sense and interact with the systems around them are becoming essential. With designers facing new challenges to create smarter products, Freescale's sensing solutions are ideal to meet the needs of a constantly evolving and expanding world of technology. Our core competency is new product development using current processes to shorten the development cycle time. Our goal is to design products that ensure customer satisfaction and provide value the first time, every time. Freescale sensing solutions are able to go beyond single-die products and leverage complementary technologies from the corporation. Our broad portfolio of ZigBee® technology, MCUs, microprocessors, digital signal processors, analog and power ICs and development tools can enable even more complete system solutions for our customers. No one can match our history of success or our vision for the future. Contact Freescale today to get more information on our sensing solutions.

**Dimensions of Intelligent Contextual Sensing**

**Building on a Strong Portfolio of Diverse Sensor Types**
- Inertial, magnetic, pressure and touch sensors
- Provide a multiplicity of sensor inputs for greater value to the overall solution
- Extract the maximum context from the environment

**Intelligent Integration**
- The right combination of leading sensor types, logic and other building blocks to solve use case needs efficiently
- Advanced, modular integration that can include multiple sensor types, connectivity and low power
- Enables sensor fusion of applications and high re-use of sensor data

**Amplifying Sensing**
- Adds contextual analysis to sensor performance by including algorithms for decision making
- Sensors can be a final or sub-level decision maker that feeds into a central point
- Providing interpreted sensing information and control over a number of sensing decisions allows developers to focus on higher levels of innovation

**Ingenuity of Design**
- Novel ways for how the solution is designed and delivered that leverage Freescale's remarkable sensor portfolio, IP, expertise and innovation
  - System partitioning
  - Packaging
  - Power management
  - Connectivity

For current information about products and documentation, please visit freescale.com/Sensors