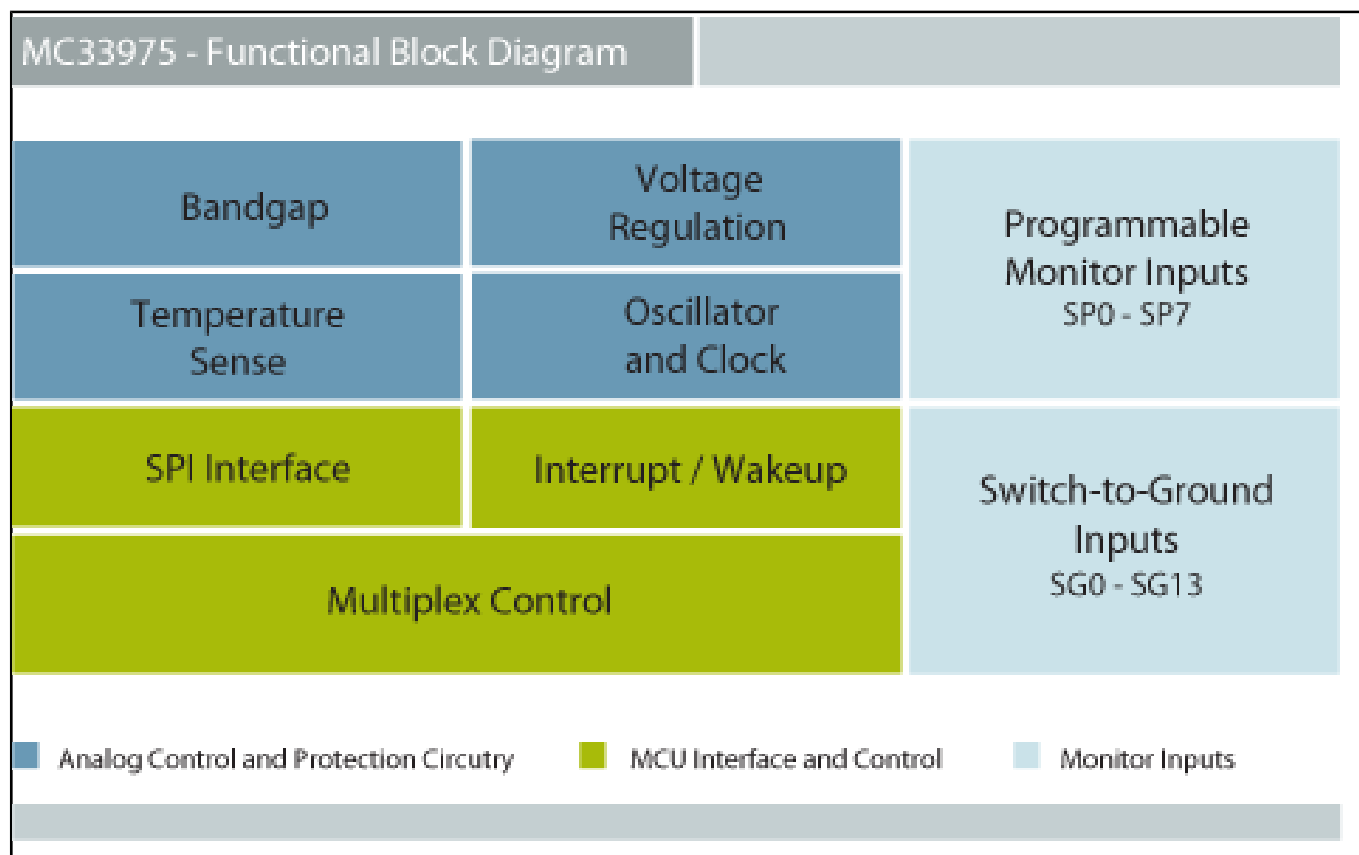# MSDI with 32 mA Suppressed Wakeup

MC33975

Last Updated: Dec 23, 2025

The NXP® MC33975 multiple switch detection interface with suppressed wake-up is designed to detect the closing and opening of up to 22 switch contacts, ideal for automotive and industrial products requiring low sleep state currents.

- The switch status, open or closed, is transferred to the MPU through a serial peripheral interface
- Normal mode allows programming of the device and supplies switch contacts with pullup or pull-down current and Sleep mode provides low quiescent current
- The programmable interrupt timer for Sleep mode can be disabled, switch detection currents are 32 mA and 4.0 mA for switch-to-ground inputs, the interrupt bit is a reset bit, and the package is Pb-free

NXP MC33975 Power Actuation Block Diagram

MC33975 - Functional Block Diagram

Bandgap	Voltage Regulation	Programmable Monitor Inputs SP0 - SP7
Temperature Sense	Oscillator and Clock	
SPI Interface	Interrupt / Wakeup	Switch-to-Ground Inputs SG0 - SG13
Multiplex Control		

■ Analog Control and Protection Circuitry   ■ MCU Interface and Control   ■ Monitor Inputs

View additional information for MSDI with 32 mA Suppressed Wakeup.

Note: The information on this document is subject to change without notice.