



Low-Cost 22-CH Multiple Switch Detect Interface

CD1020

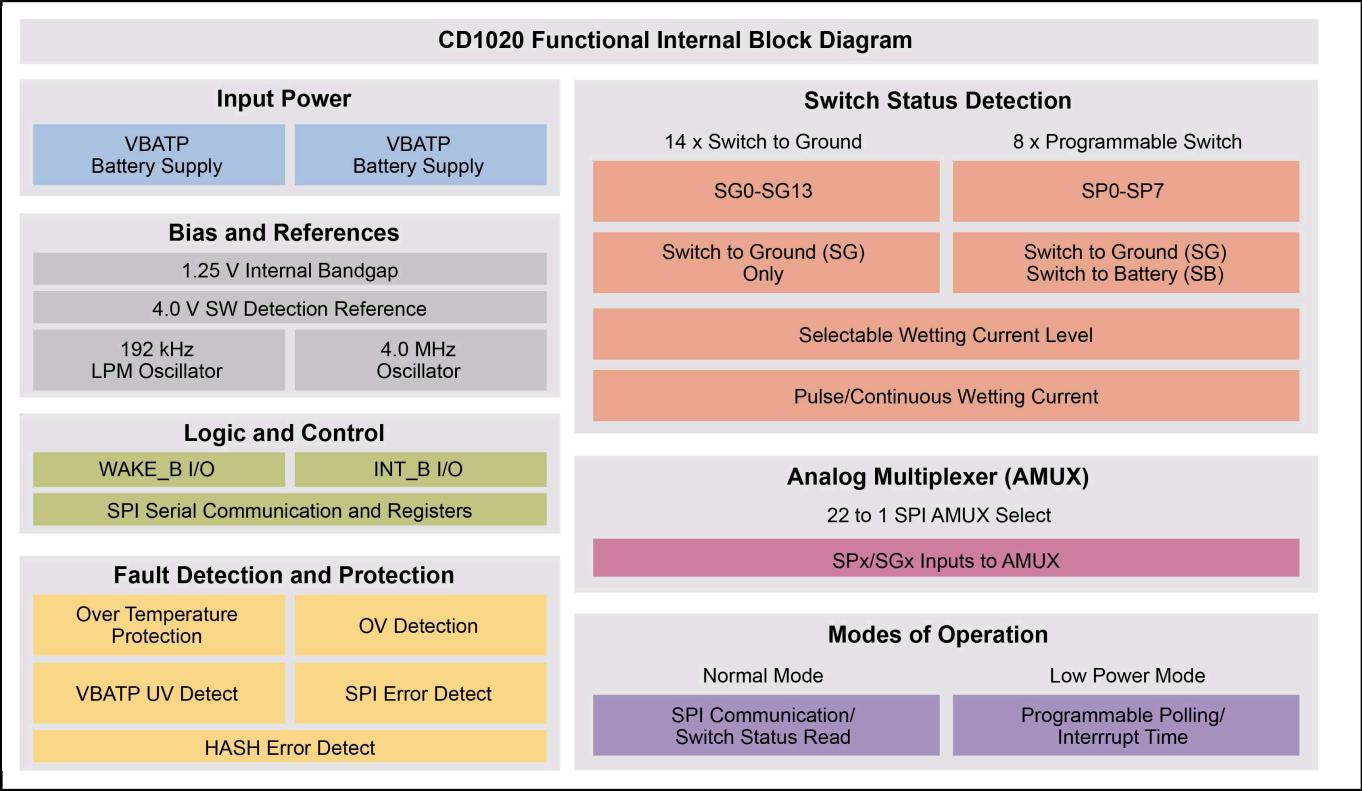
Last Updated: Dec 23, 2025

The CD1020 is a cost-optimized switch detection interface device (MSDI) designed to detect the closing and opening of up to 22 switch contacts. The switch status, either open or closed, is transferred to the microprocessor unit (MCU) through a serial peripheral interface (SPI). This SMARTMOS device also features a 22-to-1 analog multiplexer for reading the input channels as analog inputs. The analog selected input signal is buffered and provided on the AMUX output pin for the MCU to read.

The CD1020 device has two modes of operation, Normal and Low-power mode (LPM). Normal mode allows programming of the device and supplies switch contacts with pull-up or pull-down current as it monitors the change of state on the switches. The LPM provides low quiescent current, which makes the CD1020 ideal for automotive and industrial products requiring low sleep-state currents.

The low-cost MSDI is available in high power, space-saving wettable flank 5x5mm QFN package.

CD1020 Low-Cost 22-CH Multiple Switch Detect Interface Block Diagram



View additional information for [Low-Cost 22-CH Multiple Switch Detect Interface](#).

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