



# I<sup>2</sup>C-Bus to SPI Bridge

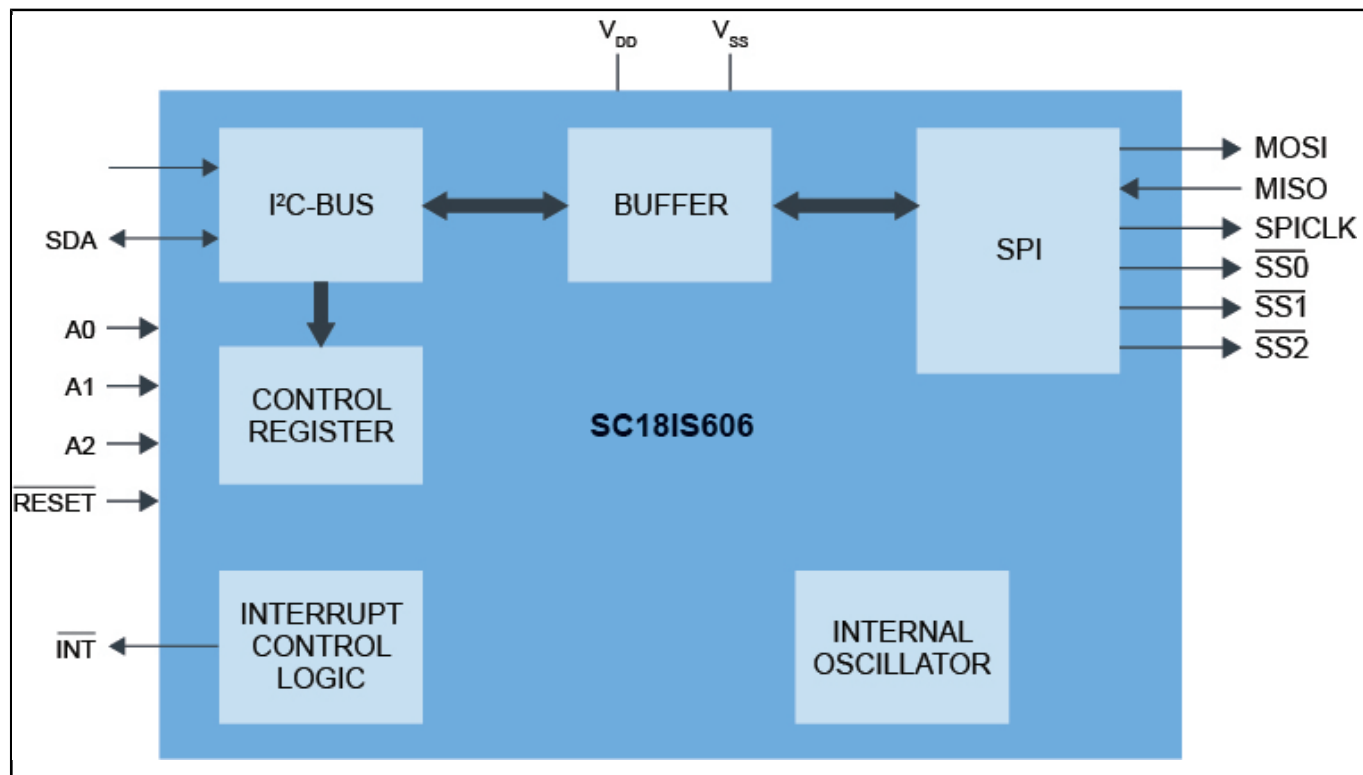
## SC18IS606

Last Updated: Dec 24, 2025

SC18IS606 is designed to serve as an interface between a standard I<sup>2</sup>C-bus of a microcontroller and an SPI bus. This allows the microcontroller to communicate directly with SPI devices through its I<sup>2</sup>C-bus. SC18IS606 operates as an I<sup>2</sup>C-bus target-transmitter or target-receiver and an SPI controller. SC18IS606 controls all the SPI bus specific sequences, protocol and timing. SC18IS606 has its own internal oscillator, and it supports three SPI chip select outputs that may be configured as GPIO when not used as SPI chip select.

SC18IS606 is a functional replacement for SC18IS602B with exception of: new pinout, three instead of four chip selects but without quasi bidirectional mode, operating supply voltage lower level of 1.71 V vs 2.4 V, data buffer increased to 1024 bytes vs 200 bytes and temperature range of -40 °C to 105 °C vs -40 °C to 85 °C.

## SC18IS606PW Block Diagram



View additional information for [I<sup>2</sup>C-Bus to SPI Bridge](#).

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

**www.nxp.com**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.