



UART to I²C-Bus Bridge

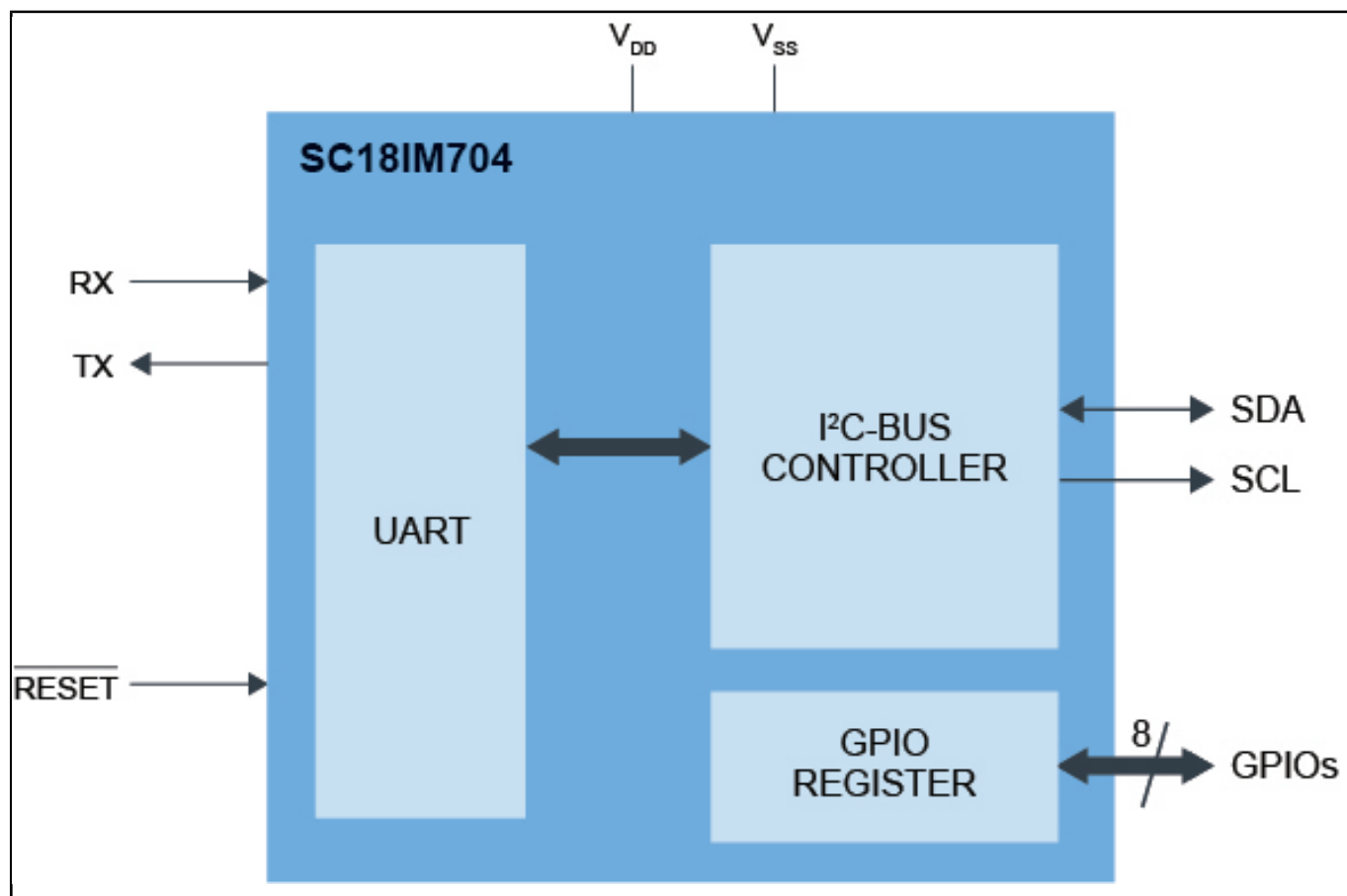
SC18IM704

Last Updated: Dec 24, 2025

SC18IM704 is designed to serve as an interface between the standard UART port of a microcontroller or microprocessor and the serial I²C-bus; this allows the microcontroller or microprocessor to communicate directly with other I²C-bus devices. SC18IM704 can operate as an I²C-bus controller. SC18IM704 controls all the I²C-bus specific sequences, protocol, arbitration and timing. The host communicates with SC18IM704 with ASCII messages protocol; this makes the control sequences from the host to SC18IM704 become very simple.

SC18IM704 is a functional replacement for SC18IM700 with exception of: new pinout, GPIO without quasi bidirectional mode, operating supply voltage lower level to 1.71 V vs 2.4 V and temperature range of -40 °C to 105 °C vs -40 °C to 85 °C.

SC18IM704PW Block Diagram



View additional information for [UART to I²C-Bus 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.