



Single UART with I²C-Bus/SPI Interface, 64 Bs of Transmit and Receive FIFOs, IrDA SIR Built-In Support

SC16IS740_750_760

Last Updated: Oct 13, 2023

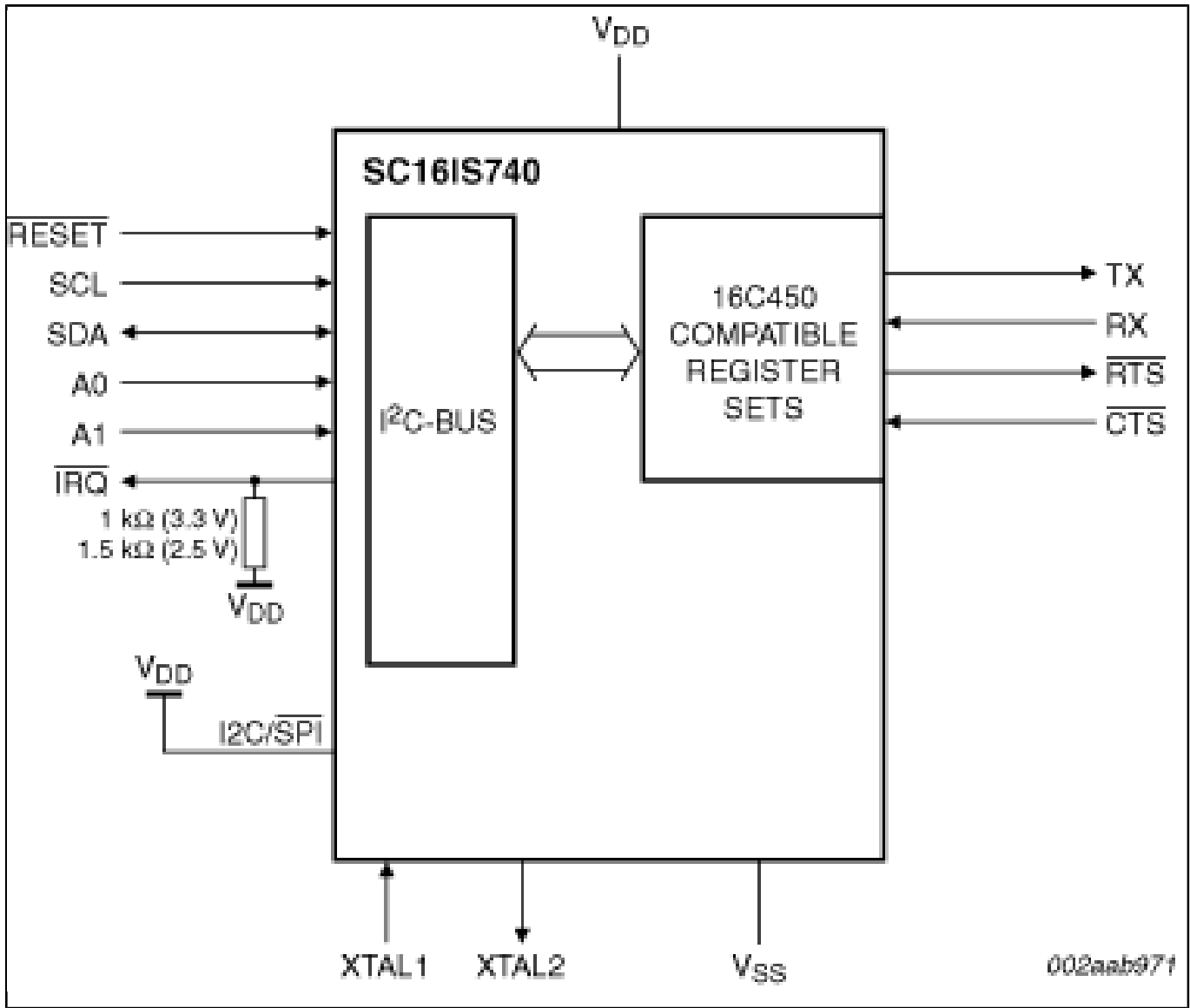
The SC16IS740/750/760 is a follower I²C-bus/SPI interface to a single-channel high performance UART. It offers data rates up to 5 Mbit/s and guarantees low operating and sleeping current. The SC16IS750 and SC16IS760 also provide the application with 8 additional programmable I/O pins. The device comes in very small HVQFN24, TSSOP24 (SC16IS750/760) and TSSOP16 (SC16IS740) packages, which makes it ideally suitable for handheld, battery operated applications. This family of products enables seamless protocol conversion from I²C-bus or SPI to and RS-232/RS-485 and are fully bidirectional.

The SC16IS760 differs from the SC16IS750 in that it supports SPI clock speeds up to 15 Mbit/s instead of the 4 Mbit/s supported by the SC16IS750, and in that it supports IrDA SIR up to 1.152 Mbit/s. In all other aspects, the SC16IS760 is functionally and electrically the same as the SC16IS750. The SC16IS740 is functionally and electrically identical to the SC16IS750, with the exception of the programmable I/O pins which are only present on the SC16IS750.

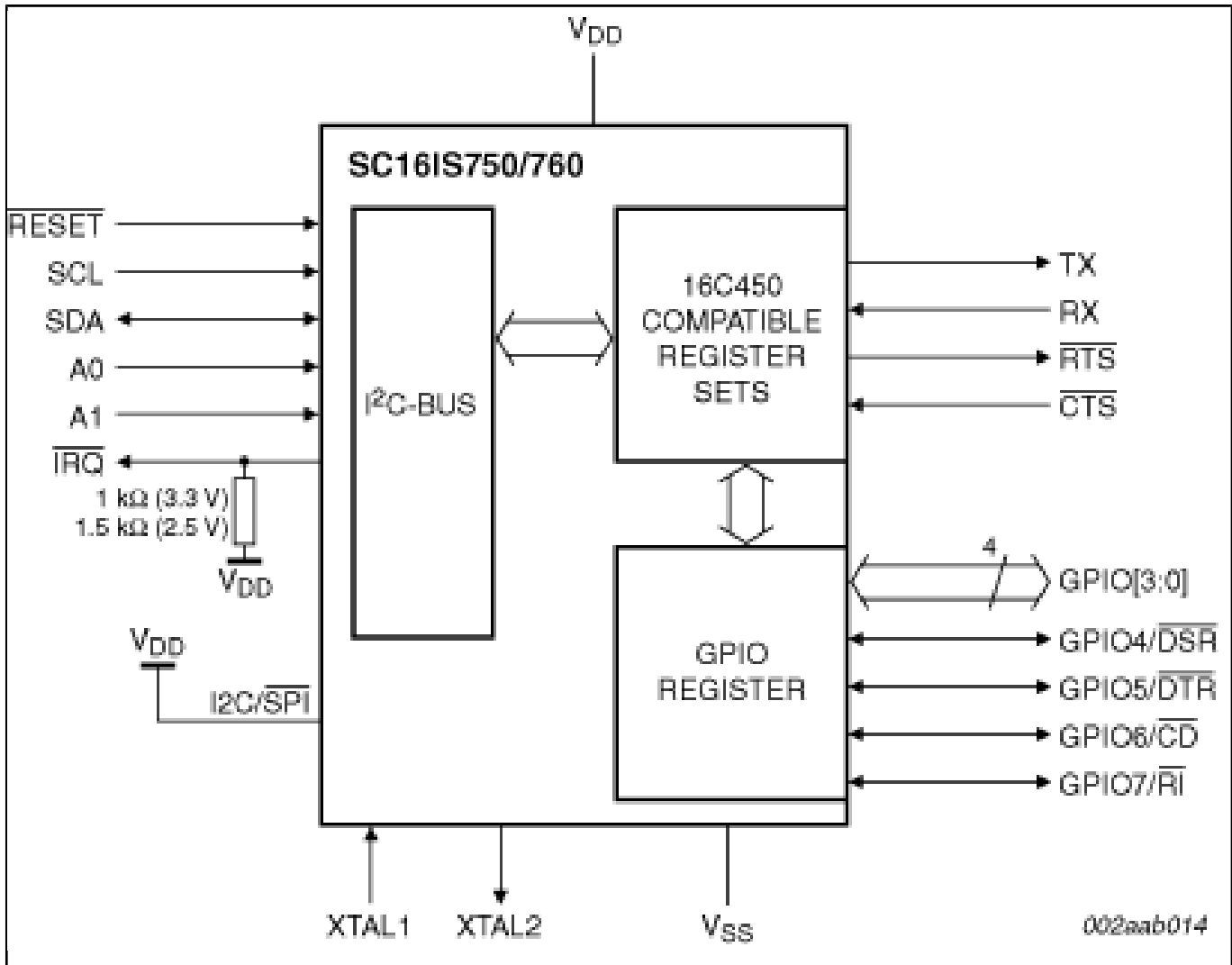
The SC16IS740/750/760's internal register set is backward-compatible with the widely used and widely popular 16C450. This allows the software to be easily written or ported from another platform.

The SC16IS740/750/760 also provides additional advanced features such as auto hardware and software flow control, automatic RS-485 support, and software reset. This allows the software to reset the UART at any moment, independent of the hardware reset signal.

Block diagram: SC16IS740IPW, SC16IS750IBS, SC16IS750IPW, SC16IS760IBS, SC16IS760IPW Block Diagram



Block diagram: SC16IS740IPW, SC16IS750IBS, SC16IS750IPW, SC16IS760IBS, SC16IS760IPW Block Diagram



View additional information for [Single UART with I²C-Bus/SPI Interface, 64 Bs of Transmit and Receive FIFOs, IrDA SIR Built-In Support](#).

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. © 2024 NXP B.V.