# Eight-Channel I²C-Bus Switch with Reset

## PCA9548A

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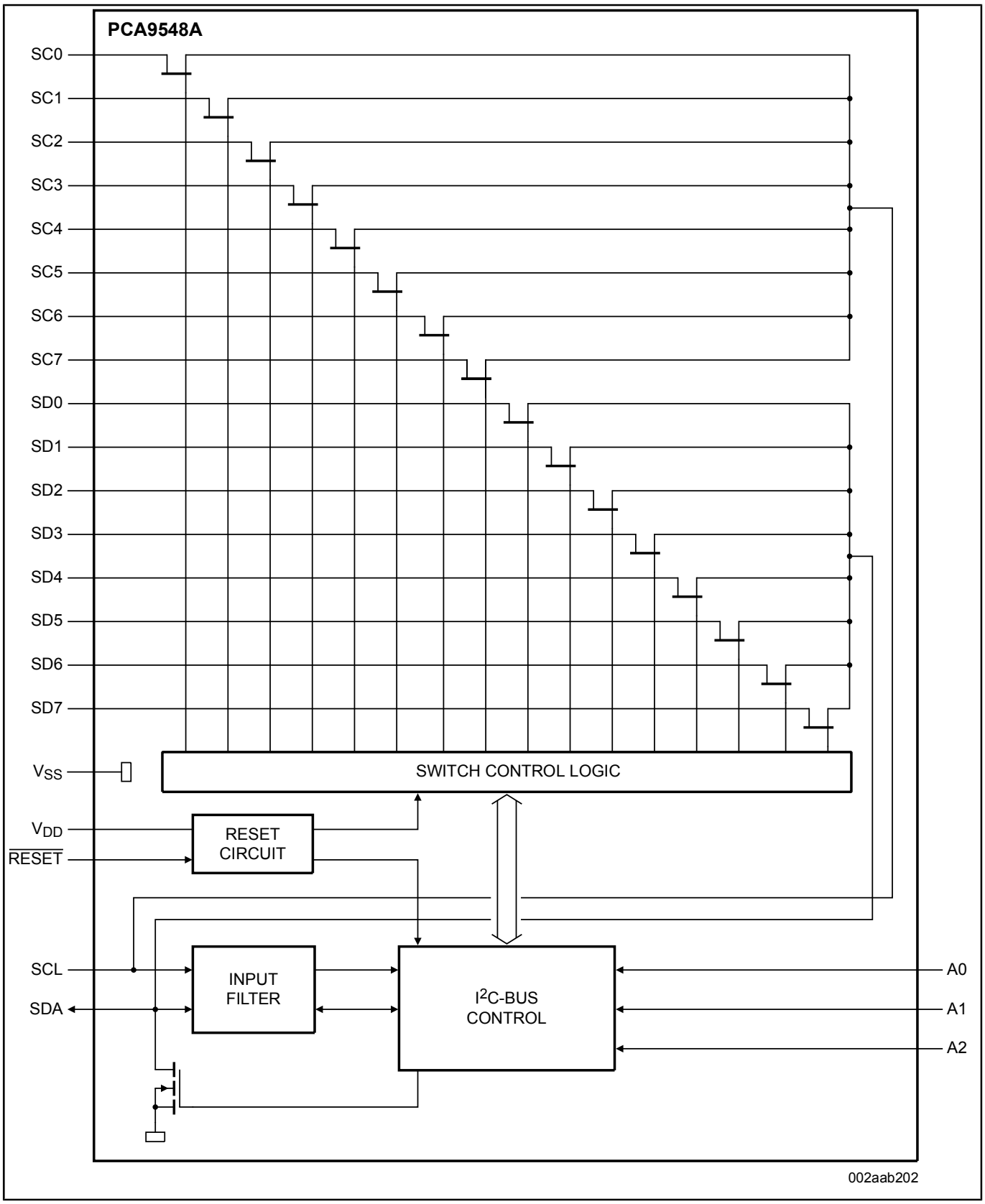
The PCA9548A is an octal bidirectional translating switch controlled via the I²C-bus. The SCL/SDA upstream pair fans out to eight downstream pairs, or channels. Any individual SCx/SDx channel or combination of channels can be selected, determined by the contents of the programmable control register.

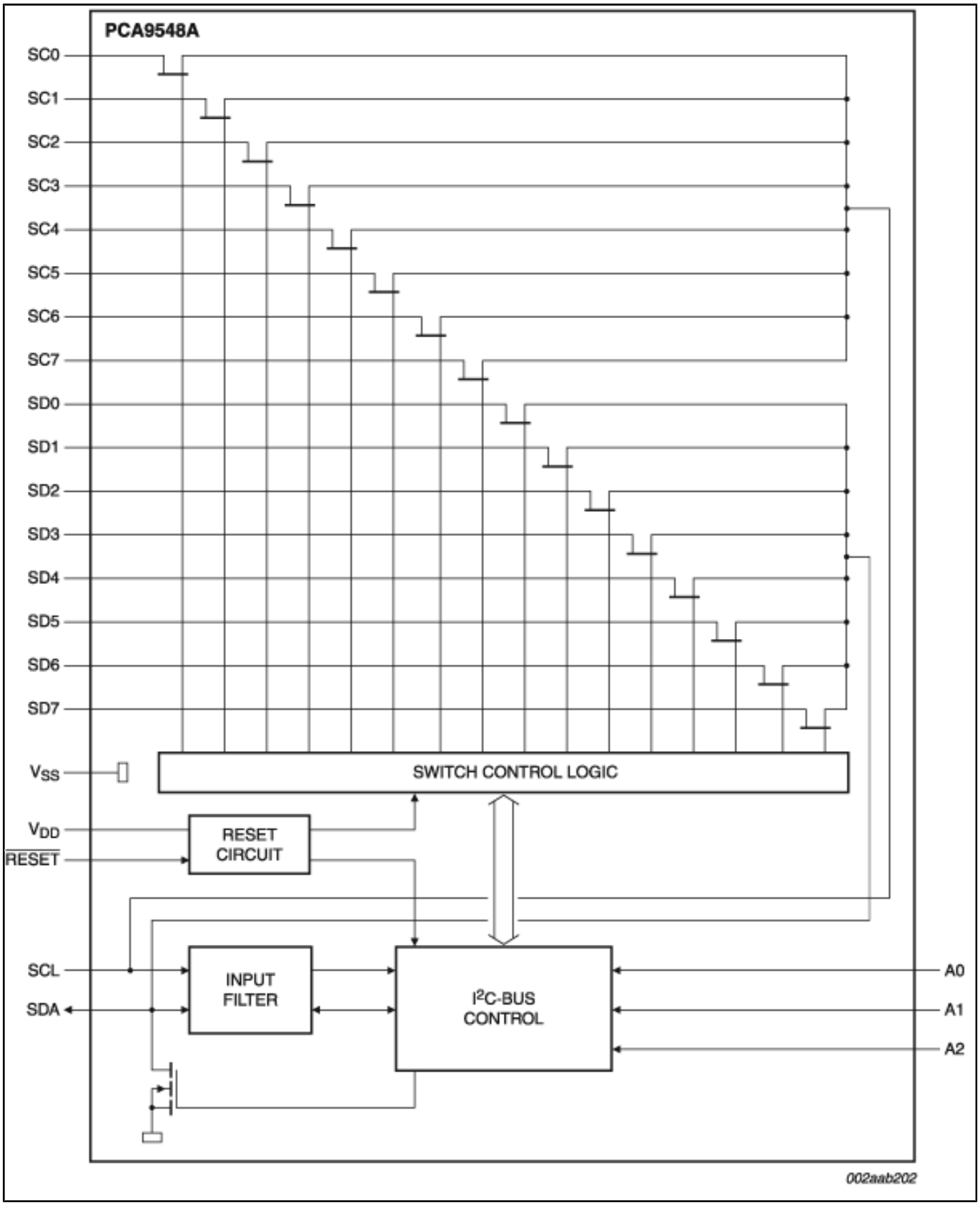
An active LOW reset input allows the PCA9548A to recover from a situation where one of the downstream I²C-buses is stuck in a LOW state. Pulling the RESET pin LOW resets the I²C-bus state machine and causes all the channels to be deselected as does the internal Power-on reset function.

The pass gates of the switches are constructed such that the VDD pin can be used to limit the maximum high voltage which will be passed by the PCA9548A. This allows the use of different bus voltages on each pair, so that 1.8 V or 2.5 V or 3.3 V parts can communicate with 5 V parts without any additional protection. External pull-up resistors pull the bus up to the desired voltage level for each channel. All I/O pins are 6 V tolerant.

## PCA9548A Block Diagram




## PCA9548ABS, PCA9548AD, PCA9548APW Block Diagram




View additional information for Eight-Channel I²C-Bus Switch with Reset.

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

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