带复位功能的4通道I²C总线开关

PCA9546A

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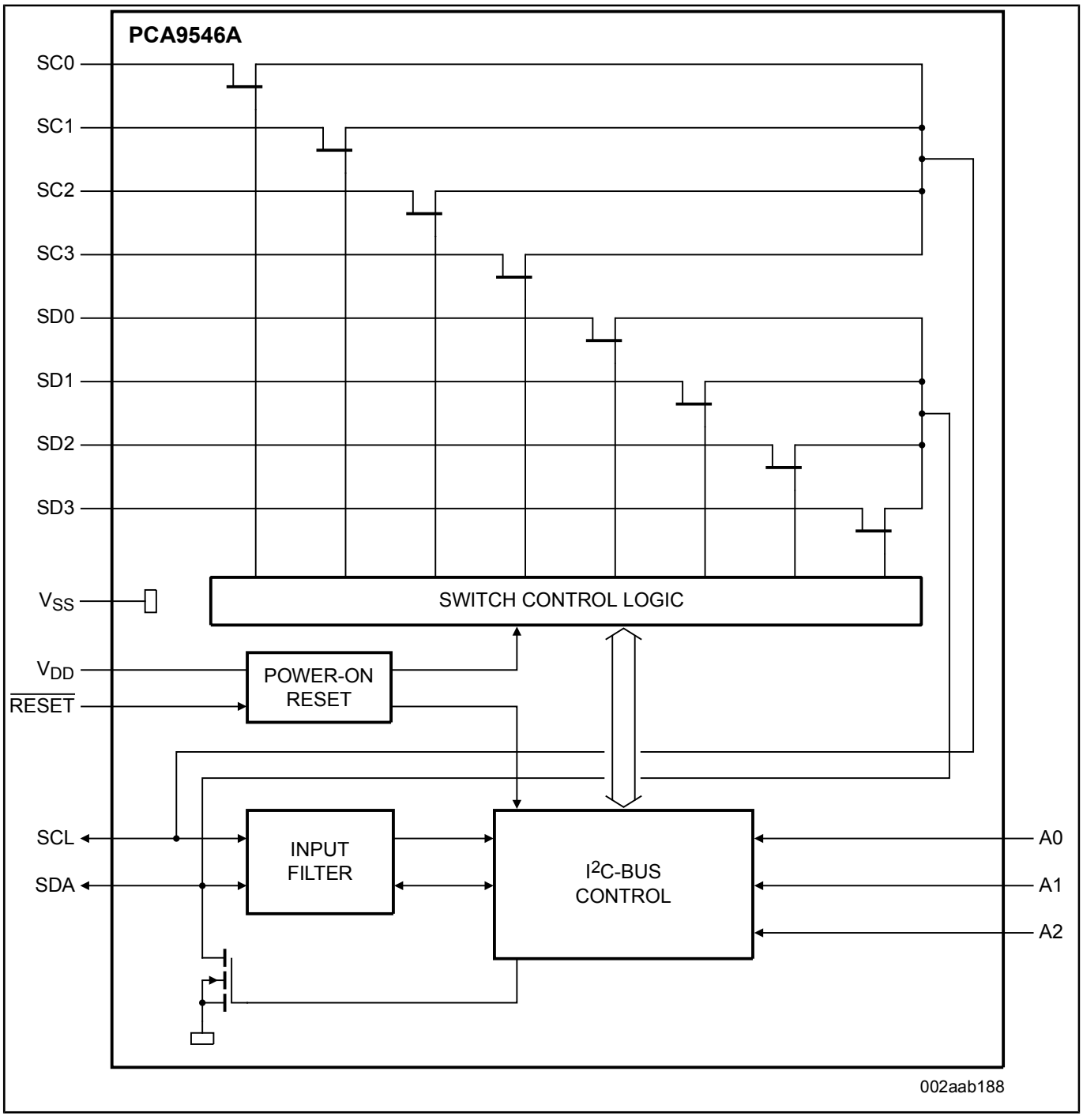
PCA9546A是一款四路双向转换开关，通过I²C总线进行控制。SCL/SDA上游对会扇出四个下游对或通道。可选择任何单独的SCx/SDx通道或通道组合，由可编程控制寄存器的内容决定。

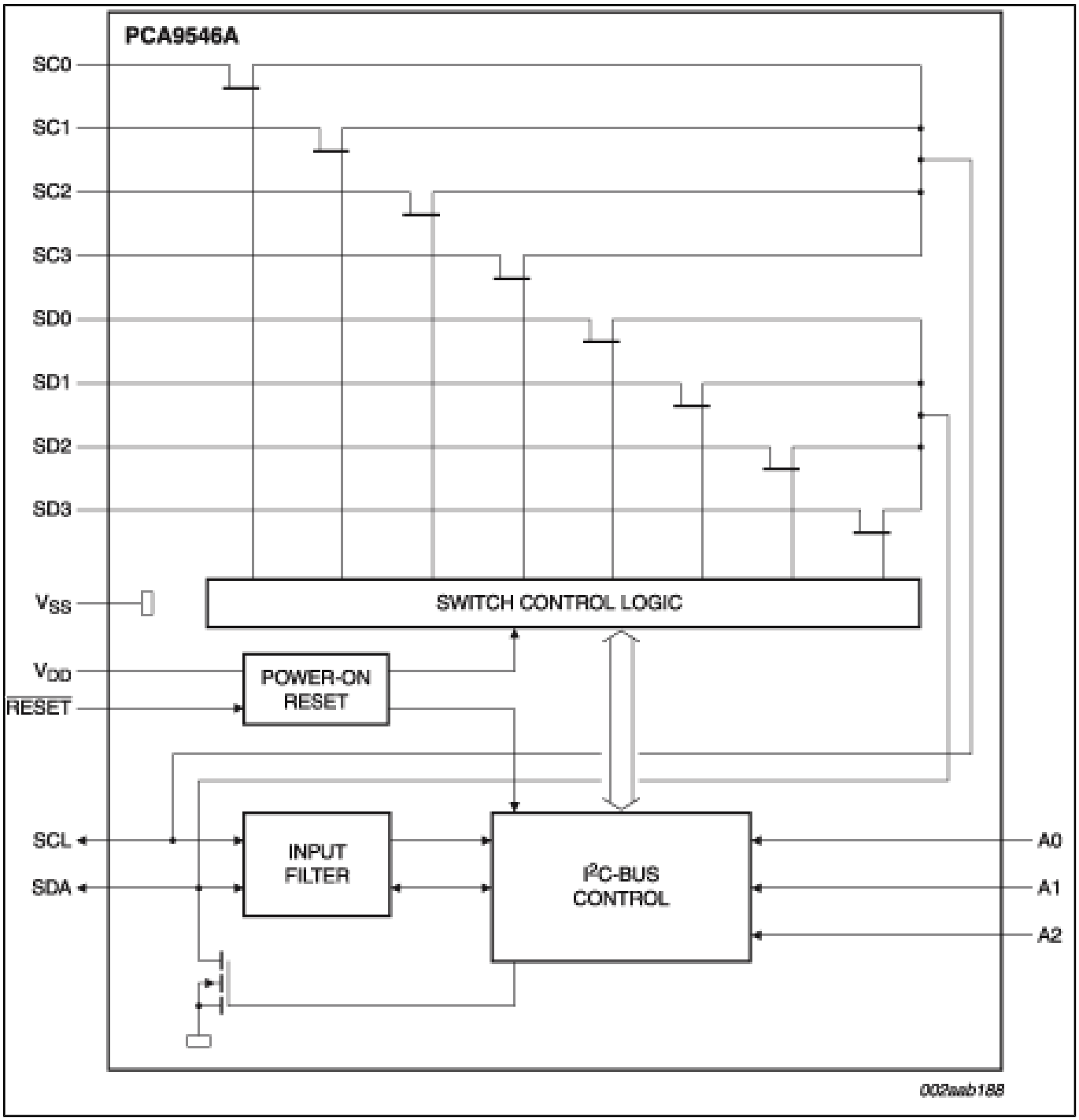
低电平有效的复位输入端允许PCA9546A从某个下游I²C总线停滞于低电平状态的情形中恢复过来。和内部上电复位(POR)功能一样，将RESET引脚拉至低电平也可将I²C总线状态机复位，并导致所有通道均处于未选定状态。

这些开关的传输门构造使得VDD引脚可用于限制PCA9546A传递的最大高压。这样就可以在每一对上使用不同的总线电压，从而使1.8V、2.5V或3.3V的部件无需额外保护即可与5V的部件进行通信。外部上拉电阻将总线上拉至各通道想要的电压电平。所有I/O引脚均可容许5V电压。

PCA9546A Block Diagram



PCA9546ABS, PCA9546AD, PCA9546APW Block Diagram



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