

# INTL9545 Product Brief

## 1. Description

As a quad bidirectional translating switch, the INTL9545 is controlled through the I2C bus. Its SCL/SDA input pair is distributed to four SCL/SDA pairs. Each SCn/SDn channel or channel combination can be selected, based on the programmable control register. There are four interrupt inputs ( $\overline{\text{INT3}}$  –  $\overline{\text{INT0}}$ ), one per SDA/SCL. An active-low reset ( $\overline{\text{RESET}}$ ) input is set so that the INTL9545 can recover if one of the I2C buses gets stuck in a low state. Pulling  $\overline{\text{RESET}}$  low resets the I2C state machine deselecting all the channels. This is similar to the internal power-on reset function. The switches are designed with pass gates so that the VCC terminal can restrict maximum high voltage, different bus voltages can be used on each pair, and 1.8V, 2.5V, or 3.3V parts can communicate with 5V parts, without any additional protection. External pull-up resistors are arranged to adjust the bus up to the desired voltage level for each channel. Each I/O terminal is 5.5V tolerant.

## 2. Features

- 1-of-4 Bidirectional Translating Switches
- I2C Bus and SMBus Compatible
- Four Active-Low Interrupt Inputs
- Active-Low Interrupt Output
- Active-Low Reset Input
- Two Address Terminals, Allowing up to Four
- Channel Selection via I2C Bus
- Power-Up with All Switch Channels Deselected
- Low RON Switches
- Allows Voltage-Level Translation Between 1.8V, 2.5V, 3.3V, and 5V Buses
- No Glitch on Power-Up
- Low Standby Current
- Operating Power-Supply Voltage from 1.65-5.5V
- 0-400kHz Clock Frequency
- Operating Temperature = -40°C to 85°C
- Available package: TSSOP-20(6.50 mm x 4.40 mm)

## 3. Applications

- Automotive electronics
- Factory automation
- IT infrastructure (servers and storages)
- Communication

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## 4. Functional Diagram

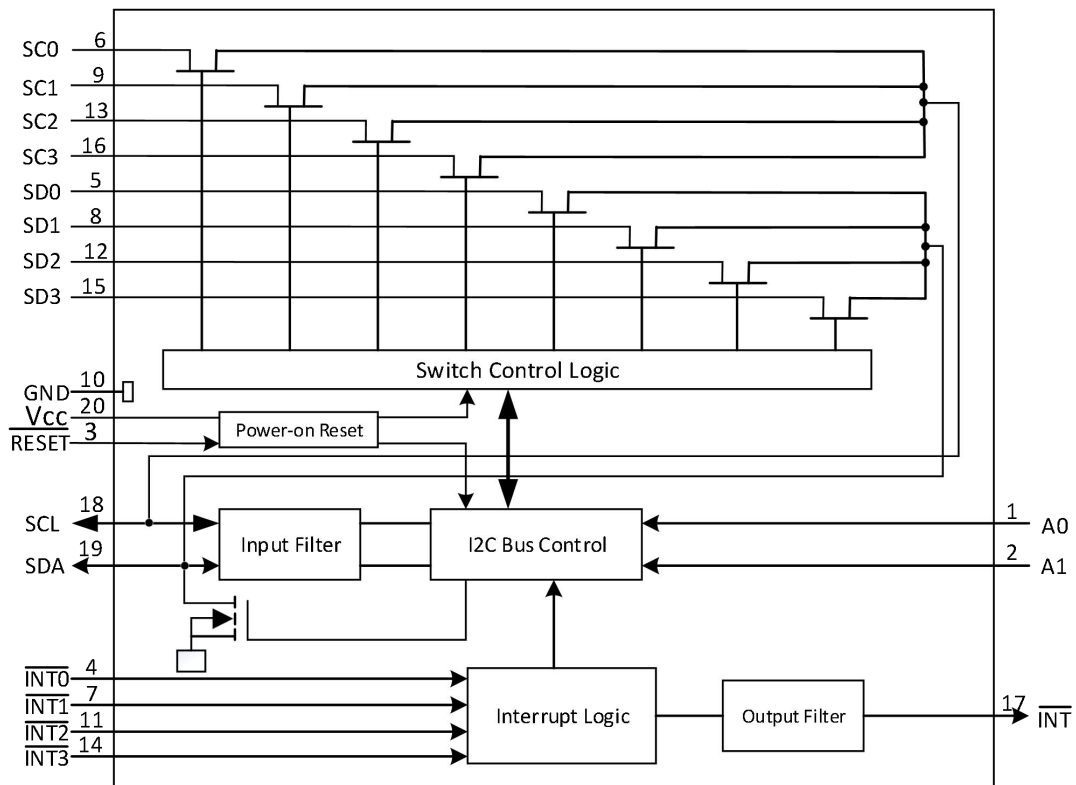


Figure 1 Functional Diagram