INTL9555 Product Brief

1. Description

This chip, which is a 24-pin CMOS device, is used to provide 16 bits of general-purpose parallel input/output (GPIO) expansion for I2C-bus/SMBus applications. The INTL9555 features several improvements, including high drive capability, 5V I/O tolerance, lower supply current, individual I/O configuration and smaller packaging. The I/O expander is simple solution when additional I/O is needed.

This 16-bit I/O expander for the two-line bidirectional bus (I2C) is designed for 1.65V to 5.5V VDD operations. It is able to provide general-purpose remote I/O expansion for most microcontroller families via the I2C interface. This chip consists of two 8-bit configurations (input or output selection), input port, output port and polarity inversion registers. At power on, the I/Os are configured as inputs. By writing to the I/O configuration bits, the system master can enable the I/Os as either inputs or outputs. The data for each input or output is kept in the corresponding input or output register. The polarity inversion register can invert the polarity of the input port register.

2. Features

- The operating power supply voltage range of 1.65-5.5V
- 5V tolerant I/Os
- Polarity inversion register
- Active low interrupt output
- Low standby current
- Noise filter on SCL/SDA inputs
- Internal power-on reset
- No glitch on power-up
- 16 I/O pins which default to 16 inputs
- 0 Hz to 400 kHz clock frequency
- Operating Temperature=-40°C to 85°C
- The package is TSSOP-24(7.80 mm x 4.40 mm) and QFN-24(4.00 mm x 4.00 mm)

3. Applications

- IT infrastructure (servers, storages)
- Communication
- Network system, including switches and routers

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4. Functional Diagram

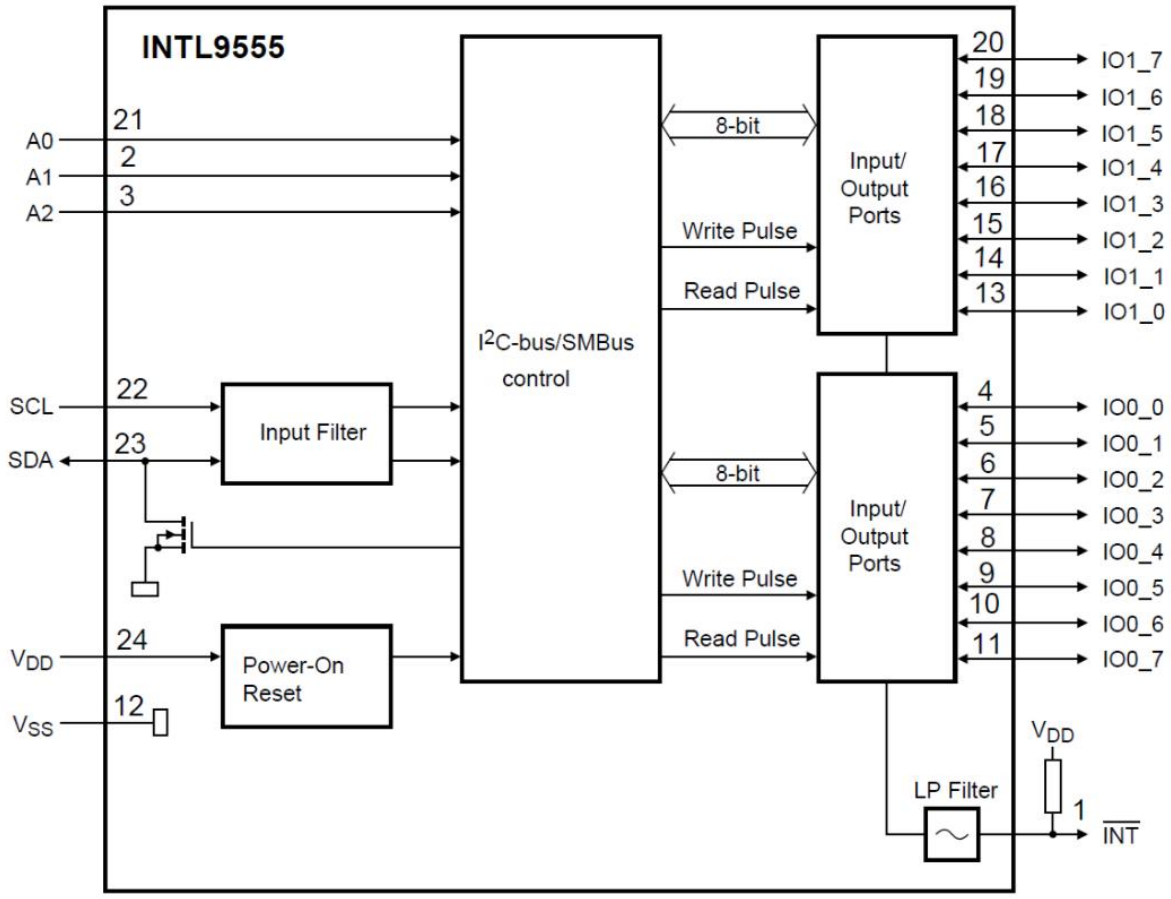

Figure 1 Functional Diagram