

PI4IOE5V9538

8-bit I2C-bus and SMBus low power I/O port with interrupt and reset

The PI4IOE5V9538 provides 8 bits of General Purpose parallel Input/Output (GPIO) expansion for I2C-bus/ SMBus applications. It includes the features such as higher driving capability, 5V tolerance, lower power supply, individual I/O configuration, and smaller packaging. It provides a simple solution when additional I/O is needed for ACPI power switches, sensors, push buttons, LEDs, fans, etc.

The PI4IOE5V9538 consists of an 8-bit register to configure the I/Os as either inputs or outputs, and two 8-bit polarity registers to change the polarity of the input port register data. The data for each input or output is kept in the corresponding Input port or Output port register. All registers can be read by the system master.

The PI4IOE5V9538 open-drain interrupt output (INT) is activated when any input state and is used to indicate the system master that an input state has changed.

The power-on reset sets the registers to their default values and initializes the device state machine. The Reset pin causes the same reset/initialization to occur without de-powering the device.

Two hardware pins (A0 and A1) vary the fixed I2C-bus address and allow up to four devices to share the same I2C-bus/SMBus.

Features

- Operation power supply voltage from 2.3V to 5.5V
- 8-bit I2C-bus GPIO with interrupt and reset
- 5V tolerant I/Os
- Active Low interrupt output
- Active Low reset input
- Polarity inversion register
- Low current consumption
- 0Hz to 400KHz clock frequency
- Noise filter on SCL/SDA inputs
- Power-on reset
- ESD protection (4KV HBM and 1KV CDM)
- Offered in three different packages:
 - SOIC-16, TSSOP-16, TQFN 4x4-16