8-bit I^{2}C Bus and SMBus General-Purpose IO Expander with Interrupt
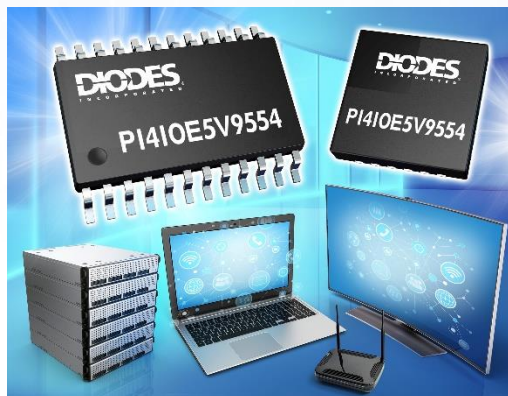
The PI4IOE5V9554 is an 8-bit general-purpose I/O expander that provides remote I/O expansion for most microcontroller families via the I^{2}C-bus and SMBus interface.

It provides a simple solution when additional I/Os are needed for ACPI power switches, sensors, push buttons, LEDs, and fans.

The PI4IOE5V9554's open-drain interrupt output is activated when any input state differs from its corresponding Input port register state, and is used to indicate to the system master that an input state has changed.

PI4IOE5V9554 has three additional inputs (A0, A1, A2) to provide further customization of the I/O functionality and allows up to eight devices to share the same I2C-bus/SMBus.

The PI4IOE5V9554 is available in two industry standard packages, TSSOP-24 and TQFN3030-24.

The Diodes Advantage

- **Offered in one of the smallest TSSOP and TQFN (3mm x 3mm x 0.75mm) packages in the market.**
  The TQFN package is suitable for thin, slim, and compact system designs

- **Operates from a supply voltage of 2.3V to 5.5V**
  Supports most microprocessor and microcontroller families in the market

- **Low power consumption supply current I_{DD} < 60uA**
  Reduces system power consumption especially battery base embedded systems

- **Low Power-on Reset (POR) Voltage V_{POS} 1.16V**
  Lower POR voltage provides faster initialization of the registers and the state machine

- **Offers 4kV ESD protection**
  More robust solution

- **Fully compatible with I^{2}C Standard Mode, I^{2}C Fast Mode (Up to 400kbit/s operation) and SMBus 400kHz**
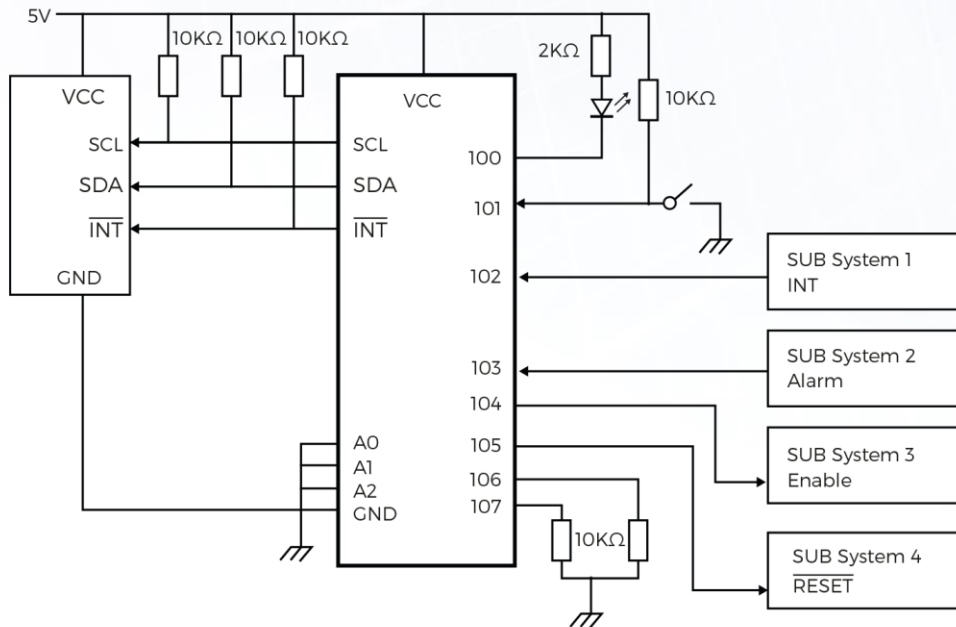 Provides a simple solution to I/O expansion

Applications

Server/ Networking/ Telecom/ Laptop/ TV applications

Typical Application Circuit

Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI4IOE5V9554LEX	L	TSSOP-24	13"	3,000
PI4IOE5V9554ZHEX	ZH	24-contact TQFN (3 x 3 x 0.75mm)	13"	3,500

Cross Reference

Competitor	Part#	Package	Diodes Ordering Part#
NXP	PCA9554	PW	PI4IOE5V9554LEX
		BS3	PI4IOE5V9554ZHEX
TI	PCA9554	PW	PI4IOE5V9554LEX
		RGT	PI4IOE5V9554ZHEX
Onsemi	CAT9554	YI-G	PI4IOE5V9554LEX