

Product Overview

CAT9554: I/O Port Expander, I²C / SMBus, 8-Bit, with Active Low Interrupt

For complete documentation, see the data sheet.

The CAT9554 is a CMOS device that provides 8-bit parallel input/output port expansion for I²C and SMBus compatible applications. This I/O expander provides a simple solution in applications where additional I/Os are needed: sensors, power switches, LEDs, pushbuttons, and fans.

The CAT9554 consist of an input port register, an output port register, a configuration register, a polarity inversion register and an I²C/SMBus-compatible serial interface.

Any of the eight I/Os can be configured as an input or output by writing to the configuration register. The system master can invert the CAT9554 input data by writing to the active-high polarity inversion register.

The CAT9554 features an active low interrupt output which indicates to the system master that an input state has changed.

The device's extended addressing capability allows up to 8 devices to share the same bus. The CAT9554A is identical to the CAT9554 except the fixed part of the I²C slave address is different. This allows up to 16 of devices (eight CAT9554 and eight CAT9554A) to be connected on the same bus.

Features

- 400 kHz I²C Bus Compatible
- 2.3 V to 5.5 V Operation
- Low Standby Current
- 5.0 V Tolerant I/Os
- 8 I/O Pins that Default to Inputs at Power-up
- High Drive Capability
- Individual I/O Configuration
- Polarity Inversion Register
- Active Low Interrupt Output
- Internal Power-on Reset

For more features, see the data sheet

Applications

- Input/output Port Expansion for Extended Addressing Capability

End Products

- White Goods (Dishwashers, Washing Machines)
- Handheld Devices (Cell Phones, PDAs, Digital Cameras)
- Data Communications (Routers, Hubs and Servers)

Part Electrical Specifications

Product	Compliance	Status	I/O	Cascadable	V _{CC} Min (V)	V _{CC} Max (V)	Interrupt Output	I/O Pullups	LED Blink/PWM	I _O Min (mA)	Package Type
CAT9554YI-GT2	Pb-free Halide free	Active	8	8 Slave ID Addresses	2.3	5.5	Yes	Yes	No	10	TSSOP-16

For more information please contact your local sales support at www.onsemi.com.

Created on: 2/23/2019