

## Product Overview

### CAT9555: I/O Port Expander, I<sup>2</sup>C / SMBus, 16-Bit, with Active Low Interrupt

For complete documentation, see the data sheet.

The CAT9555 is a CMOS device that provides 16-bit parallel input/output port expansion for I<sup>2</sup>C and SMBus compatible applications. These I/O expanders provide a simple solution in applications where additional I/Os are needed: sensors, power switches, LEDs, pushbuttons, and fans.

The CAT9555 consists of two 8-bit Configuration ports (input or output), Input, Output and Polarity inversion registers, and an I<sup>2</sup>C/SMBus-compatible serial interface.

Any of the sixteen I/Os can be configured as an input or output by writing to the configuration register. The system master can invert the CAT9555 input data by writing to the active-high polarity inversion register.

The CAT9555 features an active low interrupt output which indicates to the system master that an input state has changed.

The three address input pins provide the device's extended addressing capability and allow up to eight devices to share the same bus. The fixed part of the I<sup>2</sup>C slave address is the same as the CAT9554, allowing up to eight of these devices in any combination to be connected on the same bus.

### Features

- 400 kHz I<sup>2</sup>C bus compatible
- 2.3 V to 5.5 V operation
- Low standby current
- 5.0 V tolerant I/Os
- 16 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 <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	Interrupt Output	I/O Pullups	LED Blink/PWM	I <sub>O</sub> Min (mA)	Package Type
CAT9555YI-T2	Pb-free Halide free	Active	16	8 Slave ID Addresses	2.3	5.5	Yes	Yes	No	10	TSSOP-24

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 2/15/2019