

I2C Interface 400kHz 3.6V Automotive 16-Pin TSSOP T/R

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: TSSOP16

Product Type: Drivers

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

TCA6408AQPWRQ1 Image

Images are for reference only

[Inquiry](#)

General Description

The TCA6408A is a 16-pin device that provides 8-bits of general purpose parallel input/output (I/O) expansion for the two-line bidirectional I2C bus (or SMBus) protocol. This device can operate with a power supply voltage ranging from 1.65 V to 5.5 V on both the I2C bus side (VCCI) and on the P-port side (VCCP). This allows the TCA6408A to interface with next-generation microprocessors and microcontrollers on the SDA/SCL side, where supply levels are dropping down to conserve power. In contrast to the dropping power supplies of microprocessors and microcontrollers, some PCB components such as LEDs remain at a 5-V power supply.

The device supports both 100-kHz (Standard-mode) and 400-kHz (Fast-mode) clock frequencies. I/O expanders such as the TCA6408A provide a simple solution when additional I/Os are needed for switches, sensors, push-buttons, LEDs, fans, and so forth.

Key Features

I2C to Parallel Port Expander

Operating Power-Supply Voltage Range of 1.65 V to 5.5 V

Allows Bidirectional Voltage-Level Translation and GPIO Expansion Between 1.8-V, 2.5-V, 3.3-V, and 5-V I2C Bus and P-Ports

Low Standby Current Consumption of 1 μ A

5-V Tolerant I/O Ports

400-kHz Fast I2C Bus

Hardware Address Pin Allows Two TCA6408A Devices on the Same I2C/SMBus Bus

Active-Low Reset (RESET) Input

Open-Drain Active-Low Interrupt (INT) Output

Input/Output Configuration Register

Polarity Inversion Register

Internal Power-On Reset

Power Up With All Channels Configured as Inputs

No Glitch On Power Up

Noise Filter on SCL/SDA Inputs

Latched Outputs With High-Current Drive Maximum Capability for Directly Driving LEDs

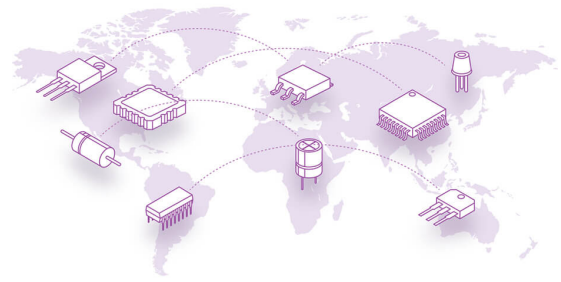
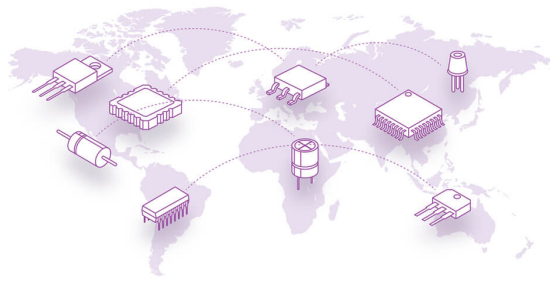
Latch-Up Performance Exceeds 100 mA Per JESD 78, Class II

Schmitt-Trigger Action Allows Slow Input Transition and Better Switching Noise Immunity at the SCL and SDA Inputs

ESD Protection Exceeds JESD 22

2000-V Human Body Model (A114-A)

1000-V Charged-Device Model (C101)



Recommended For You

TCA9534PWR

Texas Instruments, Inc

TSSOP16

TCA9517DR

Texas Instruments, Inc

SOP8

TCA6416APWR

Texas Instruments, Inc

TSSOP24

TCA6416ARTWR

Texas Instruments, Inc

WQFN24

TCA4311ADGKR

Texas Instruments, Inc

MSOP-8

TCA9554APWR

Texas Instruments, Inc

TSSOP16

TCA9539QPWRQ1

Texas Instruments, Inc

TSSOP24

TCA6408APWR

Texas Instruments, Inc

TSSOP16

TCA9535DBR

Texas Instruments, Inc

SSOP24

TCA9517DGKRQ1

Texas Instruments, Inc

VSSOP8

TCA9535DBT

Texas Instruments, Inc

SSOP24

TCA9803DGKR

Texas Instruments, Inc

MSOP8

TCA9554ADBQR

Texas Instruments, Inc

SSOP16

TCA9534APWR

Texas Instruments, Inc

TSSOP16

TCA9536DGKR

Texas Instruments, Inc

VSSOP-8