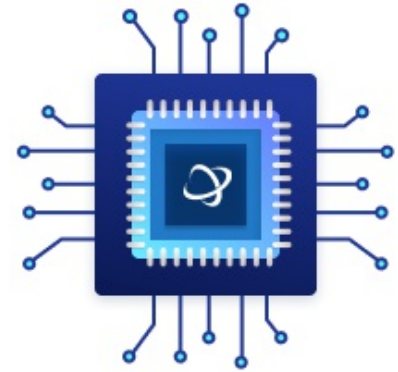


Voltage Level Translator, Bidirectional, 2 Input, 64 mA, 1.5 ns, 0 V to 5.5 V, US8

Manufacturers	ON Semiconductor, LLC
Package/Case	US8
Product Type	Logic ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for PCA9306USG or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The PCA9306 device is a dual bidirectional I2C and SMBus voltage-level translator with an enable (EN) input, and is operational from 1.2-V to 3.3-V VREF1 and 1.8-V to 5.5-V VREF2.

The PCA9306 device allows bidirectional voltage translations between 1.2 V and 5 V, without the use of a direction pin. The low ON-state resistance (RON) of the switch allows connections to be made with minimal propagation delay. When EN is high, the translator switch is ON, and the SCL1 and SDA1 I/O are connected to the SCL2 and SDA2 I/O, respectively, allowing bidirectional data flow between ports. When EN is low, the translator switch is off, and a high-impedance state exists between ports.

In addition to voltage translation, the PCA9306 device can be used to isolate a 400-kHz bus from a 100-kHz bus by controlling the EN pin to disconnect the slower bus during fast-mode communication.

Features

2-Bit bidirectional translator for SDA and SCL lines in mixed-mode I2C Applications

I2C and SMBus Compatible

Less than 1.5-ns Maximum Propagation Delay to Accommodate Standard-mode and Fast-mode I2C Devices and Multiple Masters

Allows Voltage-level Translation Between

1.2-V VREF1 and 1.8-V, 2.5-V, 3.3-V,

or 5-V VREF2

1.8-V VREF1 and 2.5-V, 3.3-V, or 5-V VREF2

2.5-V VREF1 and 3.3-V or 5-V VREF2

3.3-V VREF1 and 5-V VREF2

Provides Bidirectional Voltage Translation with no Direction Pin

Low 3.5-Ω ON-state Resistance Between Input and Output Ports Provides Less Signal Distortion

Open-drain I2C I/O ports (SCL1, SDA1, SCL2, and SDA2)

5-V Tolerant I2C I/O Ports to Support Mixed-mode Signal Operation

High-impedance SCL1, SDA1, SCL2, and SDA2 pins for >

Lockup-free Operation for Isolation when >

Flow-through Pinout for Ease of Printed-circuit-board Trace Routing

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

ESD Protection Exceeds JESD 22

2000-V Human-Body Model (A114-A)

1000-V Charged-Device Model (C101)

Application

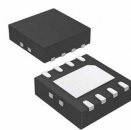
ONSEMI

Related Products



[PCA9306FMUTAG](#)

ON Semiconductor, LLC
8-UDFN



[NLVPCA9306AMUTCG](#)

ON Semiconductor, LLC
8-UFQFN



[NC7SZ18P6X](#)

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[NC7SV04P5X](#)

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SC-70-5



[NLSV2T244MUTAG](#)

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[MM74HC14MX](#)

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SOIC-14



[NC7SV32P5X](#)

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