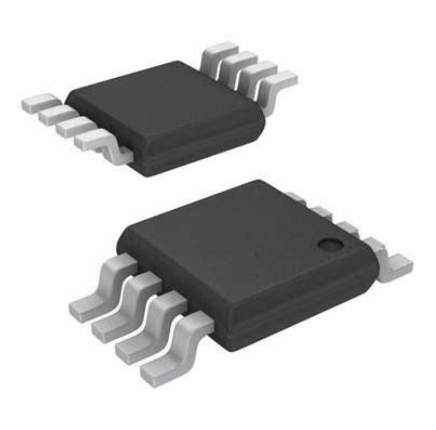
TCA9803DGKR

I2C Buffer/Repeater 1.8V/2.5V/3.3V 8-Pin VSSOP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	MSOP8
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The TCA9803 is a dual-channel bidirectional bufferintended for I2C bus and SMBus/PMBus systems. It provides bidirectionallevel shifting (up-translation and down-translation) between low voltages (down to 0.8 V) andhigher voltages (1.65 V to 3.6 V). The TCA9803 features aninternal current source on the B-side of the device, allowing the removal of external pull-upresistors on the B-side. The current source also provides an improved rise time and ultra-low powerconsumption.

The TCA9803 is able to provide true buffering (ratherthan a pass-FET solution) without using a static voltage offset or incremental offset. This meansthat the VOL on both the A and B sides of the TCA9803 are very low (approximately 0.2 V),helping to eliminate communication issues as a result of fixed VILthresholds. Another key feature of the TCA9803 is thatthere are no power sequencing requirements, or power supply dependencies. VCCAcan be greater than, less than, or equal to VCCB. This gives thesystem designer flexibility with how the TCA9803 isused.

The TCA9803 is part of a four device family withvarying current source strengths (see the Device Comparison Table).

Key Features

Two-Channel Bidirectional Buffer

Integrated Current Source onB-side, Requires No External B-Side Resistors

Ultra-Low PowerConsumption

No Static-Voltage Offset, LowVOL

I2C Bus and SMBusCompatible

Operating Supply Voltage Range of 0.8 V to 3.6 V onA-side

Operating Supply Voltage Range of 1.65 V to 3.6 V onB-side

Active-High Repeater Enable Input

Powered-Off HighImpedance I2C Bus Pins on A-Side

Powered-Off Back-Power Protection I2C BusPins

Support for Clock Stretching and Multiple MasterArbitration

Family of Current Source Options from 0.5 mA to3 mA

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

TCA6408AQPWRQ1

Texas Instruments, Inc

TSSOP16

TCA9535DBT

Texas Instruments, Inc

SSOP24

TCA9554ADBQR

Texas Instruments, Inc

SSOP16

TCA9534APWR

Texas Instruments, Inc

TSSOP16

TCA9536DGKR

Texas Instruments, Inc

VSSOP-8