
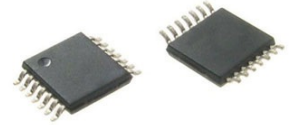


Voltage Level Translator 4-CH Bidirectional Automotive 14-Pin TSSOP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	TSSOP14
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The LSF family consists of bidirectional voltage level translators that operate from 0.8V to 4.5 V (Vref_A) and 1.8 V to 5.5 V (Vref_B). This range allows for bidirectional voltage translations between 0.8 V and 5.0 V without the need for a direction terminal in open-drain or push-pull applications. The LSF family supports level translation applications with transmission speeds greater than 100 MHz for open-drain systems that utilize a 15-pF capacitance and 165-Ω pull-up resistor.

When the An or Bn port is LOW, the switch is in the ON-state and a low resistance connection exists between the An and Bn ports. The low Ron of the switch allows connections to be made with minimal propagation delay and signal distortion. The voltage on the A or B side will be limited to Vref_A and can be pulled up to any level between Vref_A and 5 V. This functionality allows a seamless translation between higher and lower voltages selected by the user without the need for directional control.

The supply voltage (Vpu#) for each channel may be individually set up with a pull up resistor. For example, CH1 may be used in up-translation mode (1.2 V to 3.3 V) and CH2 in down-translation mode (2.5 V to 1.8 V).

When EN is HIGH, the translator switch is on, and the An I/O is connected to the Bn 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. The EN input circuit is designed to be supplied by Vref_A. EN must be LOW to ensure the high-impedance state during power-up or power-down.

Key Features

Provides bidirectional voltage translation with no direction terminal

ESD performance tested per JESD 22

200-V machine model (A115-A)

1000-V charged-device model (C101)

Recommended For You

[SN74LS257BN](#)

Texas Instruments, Inc

DIP16

[SN74LS245DW](#)

Texas Instruments, Inc

SOP20

[SN74LS74AN](#)

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DIP

SN74LS14N

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SN74LS145DR

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SOP16

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