SN74AVCB164245VR

Voltage Level Translator 16-CH Bidirectional 48-Pin TVSOP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	TSSOP48
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

SN74AVCB164245VR Image

Images are for reference only

Inquiry

General Description

This 16-bit (dual-octal) noninverting bus transceiver uses two separate configurable power-supply rails. The A port is designed to track VCCA. VCCA accepts any supply voltage from 1.4 V to 3.6 V. The B port is designed to track VCCB. VCCB accepts any supply voltage from 1.4 V to 3.6 V. This allows for universal low-voltage bidirectional translation between any of the 1.5-V, 1.8-V, 2.5-V, and 3.3-V voltage nodes.

The SN74AVCB164245 is designed for asynchronous communication between data buses. The device transmits data from the A bus to the B bus or from the B bus to the A bus, depending on the logic level at the direction-control (DIR) input. The output-enable (OE) input can be used to disable the outputs so the buses are effectively isolated.

The SN74AVCB164245 is designed so that the control pins (1DIR, 2DIR, 1OE, and 2OE) are supplied by VCCB.

To ensure the high-impedance state during power up or power down, OE should be tied to VCCB through a pullup resistor; the minimum value of the resistor is determined by the current-sinking capability of the driver.

This device is fully specified for partial-power-down applications using Ioff. The Ioff circuitry disables the outputs, preventing damaging current backflow through the device when it is powered down. If either VCC input is at GND, both ports are in the high-impedance state.

Key Features

Member of the Texas Instruments Widebus? Family

DOC? Circuitry Dynamically Changes Output Impedance, Resulting in Noise Reduction Without Speed Degradation

Dynamic Drive Capability Is Equivalent to Standard Outputs With IOH and IOL of ±24 mA at 2.5-V VCC

Control Inputs VIH/VIL Levels Are Referenced to VCCB Voltage

If Either VCC Input Is at GND, Both Ports Are in the High-Impedance State

Overvoltage-Tolerant Inputs/Outputs Allow Mixed-Voltage-Mode Data Communications

Ioff Supports Partial-Power-Down Mode Operation

Fully Configurable Dual-Rail Design Allows Each Port to Operate Over Full 1.4-V to 3.6-V Power-Supply Range

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

ESD Protection Exceeds JESD 22
2000-V Human-Body Model (A114-A)

200-V Machine Model (A115-A)

1000-V Charged-Device Model (C101)

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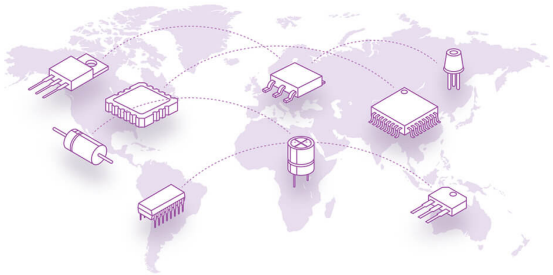

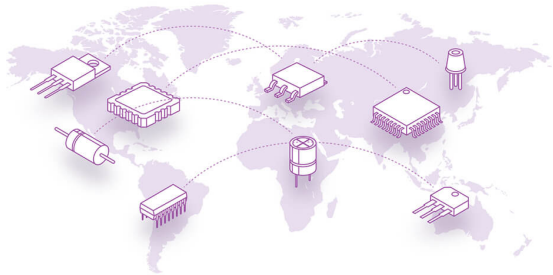

Recommended For You

SN74S38N

Texas Instruments, Inc

DIP

SN7438N

Texas Instruments, Inc

DIP14

SN75462P

Texas Instruments, Inc

DIP8

SN74F08D

Texas Instruments, Inc

SOP-14

SN74LS257BN

Texas Instruments, Inc

DIP16

SN75452BP

Texas Instruments, Inc

DIP8

SN74LS245DW

Texas Instruments, Inc

SOP20

SN74LS74AN

Texas Instruments, Inc

DIP

SN74S74N

Texas Instruments, Inc

DIP

SN7406N

Texas Instruments, Inc

DIP-14

SN74CBTLV3257D

Texas Instruments, Inc

SOP-16P

SN74HC138DR

Texas Instruments, Inc

SOP16

SN74LS14N

Texas Instruments, Inc

DIP

SN74HC139N

Texas Instruments, Inc

DIP

SN74AVC16T245DGGR

Texas Instruments, Inc

TSSOP48