SN74CB3Q16211DGVR

Bus Switch 2-Element CMOS 24-IN 56-Pin TVSOP T/R

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

SN74CB3Q16211DGVR Image

Images are for reference only

Inquiry

General Description

The SN74CB3Q16211 is a high-bandwidth FET bus switch utilizing a charge pump to elevate the gate voltage of the pass transistor, providing a low and flat ON-state resistance (ron). The low and flat ON-state resistance allows for minimal propagation delay and supports rail-to-rail switching on the data input/output (I/O) ports. The device also features low data I/O capacitance to minimize capacitive loading and signal distortion on the data bus. Specifically designed to support high-bandwidth applications, the SN74CB3Q16211 provides an optimized interface solution ideally suited for broadband communications, networking, and data-intensive computing systems.

The SN74CB3Q16211 is organized as two 12-bit bus switches with separate output-enable (1OE\, 2OE\) inputs. It can be used as two 12-bit bus switches or as one 24-bit bus switch. When OE\ is low, the associated 12-bit bus switch is ON and the A port is connected to the B port, allowing bidirectional data flow between ports. When OE\ is high, the associated 12-bit bus switch is OFF, and a high-impedance state exists between the A and B ports.

This device is fully specified for partial-power-down applications using Ioff. The Ioff circuitry prevents damaging current backflow through the device when it is powered down.

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

Key Features

Member of the Texas Instruments Widebus Family

High-Bandwidth Data Path (Up To 500 MHz)

5-V Tolerant I/Os with Device Powered Up or Powered Down

Low and Flat ON-State Resistance (ron) Characteristics Over Operating Range (ron = 5Typical)

Rail-to-Rail Switching on Data I/O Ports

0-V to 5-V Switching With 3.3-V VCC

0-V to 3.3-V Switching With 2.5-V VCC

Bidirectional Data Flow, With Near-Zero Propagation Delay

Low Input/Output Capacitance Minimizes Loading and Signal Distortion (Cio(OFF) = 4 pF Typical)

Fast Switching Frequency (fOE\ = 20 MHz Max)

Data and Control Inputs Provide Undershoot Clamp Diodes

Low Power Consumption (ICC = 1 mA Typical)

VCC Operating Range From 2.3 V to 3.6 V

Data I/Os Support 0-V to 5-V Signaling Levels (0.8 V, 1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.3 V, 5 V)

Control Inputs Can be Driven by TTL or 5-V/3.3-V CMOS Outputs

Ioff Supports Partial-Power-Down Mode Operation

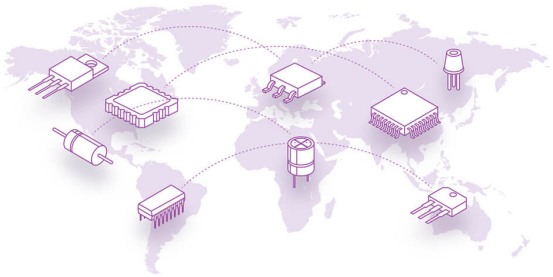
Latch-Up Performance Exceeds 100 mA Per JESD 78, Class II

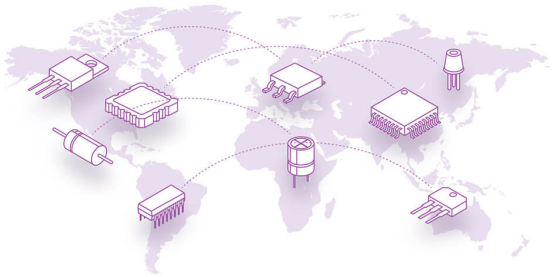
ESD Performance Tested Per JESD 22

2000-V Human-Body Model (A114-B, Class II)

1000-V Charged-Device Model (C101)

Supports Both Digital and Analog Applications: PCI Interface, Differential Signal Interface, Memory Interleaving, Bus Isolation, Low-Distortion Signal Gating





Recommended For You

SN74HC4066N

Texas Instruments, Inc

DIP14

SN74CBTD3384DW

Texas Instruments, Inc

SOIC

SN74CBT3306PWR

Texas Instruments, Inc

TSSOP8

SN74CBT3244PWR

Texas Instruments, Inc

TSSOP20

SN74CBT3253CD

Texas Instruments, Inc

SOIC-16

SN74CB3T3306DCUR

Texas Instruments, Inc

VSSOP-8

SN74LVC2G53DCUR

Texas Instruments, Inc

VSSOP8

SN74LVC2G53DCTR

Texas Instruments, Inc

TSSOP8

SN74CB3T3245PW

Texas Instruments, Inc

TSSOP20

SN74CBTLV3251PWR

Texas Instruments, Inc

TSSOP-16

SN74HC4851QPWRQ1

Texas Instruments, Inc

TSSOP16

SN3257QPWRQ1

Texas Instruments, Inc

TSSOP16

SN74LVC2G66QDCURQ1

Texas Instruments, Inc

VSSOP8

SN74CB3T16212DGGR

Texas Instruments, Inc

TSSOP-56

SN74CBT3345PW

Texas Instruments, Inc

TSSOP20