

# Voltage Level Translator 8-CH Bidirectional 20-Pin TSSOP T/R

Manufacturer:	Texas Instruments, Inc	TXB0108PWR Image
Package/Case:	TSSOP20	Images are for reference only
Product Type:	Logic ICs	Inquiry
RoHS:	RoHS Compliant/Lead free RoHS	
Lifecycle:	Active	

## **General Description**

This 8-bit noninverting translator uses two separate configurable power-supply rails. TheA port is designed to track VCCA. VCCA accepts any supply voltage from 1.2 V to 3.6 V. The B port is designed to track VCCB.VCCB accepts any supply voltage from 1.65 V to 5.5 V. This allows for universal low-voltage bidirectional translation between any of the 1.2-V, 1.5-V, 1.8-V, 2.5-V,3.3-V, and 5-V voltage nodes. VCCA should not exceedVCCB.

When the output-enable (OE) input is low, all outputs are placed in the high-impedancestate.

The TXB0108 is designed so that the OE input circuit is supplied by VCCA.

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.

To ensure the high-impedance state during power-up or power-down, OE should be tied toGND through a pulldown resistor; the minimum value of the resistor is determined by thecurrent-sourcing capability of the driver.

#### **Key Features**

1.2 V to 3.6 V on A Port and 1.65 V to 5.5 V onB Port (VCCA≤VCCB)

VCC Isolation Feature - If Either VCCInput Is at GND, All Outputs Are in the High-Impedance State

OE Input Circuit Referenced to VCCA

Low Power Consumption, 4-µA Max ICC

Ioff Supports Partial-Power-Down Mode Operation

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

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

1000-V Charged-Device Model (C101)

B Port

±15-kV Human-Body Model (A114-B)

±8-kV Human-Body Model (A114-B)(YZP Package Only)

1000-V Charged-Device Model (C101)

All trademarks are the property of their respective owners.

Description

This 8-bit noninverting translator uses two separate configurable power-supply rails. TheA port is designed to track VCCA. VCCA accepts any supply voltage from 1.2 V to 3.6 V. The B port is designed to track VCCB.VCCB accepts any supply voltage from 1.65 V to 5.5 V. This allows foruniversal low-voltage bidirectional translation between any of the 1.2-V, 1.5-V, 1.8-V, 2.5-V, 3.3-V, and 5-V voltage nodes. VCCA should not exceedVCCB.

When the output-enable (OE) input is low, all outputs are placed in the high-impedancestate.

The TXB0108 is designed so that the OE input circuit is supplied by VCCA.

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.

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









### Recommended For You

TXB0102YZPR

Texas Instruments, Inc

DSBGA-8

TXS0104EPWR

Texas Instruments, Inc

TSSOP14

TXB0104QRGYRQ1

Texas Instruments, Inc

VQFN14

TXS0102DCUT

Texas Instruments, Inc

VSSOP8

TXS0104ED

Texas Instruments, Inc

SOP14

TXB0102DCUR

Texas Instruments, Inc

VSSOP8

TXS0102QDCURQ1

Texas Instruments, Inc

VSSOP8

TXB0104QRUTRQ1

Texas Instruments, Inc

UQFN12

TXS0102YZPR

Texas Instruments, Inc

DSBGA-8

TXB0101DRLR

Texas Instruments, Inc

SOT563

TXS0104EDR

Texas Instruments, Inc

SOP14

TXS0104EQPWRQ1

Texas Instruments, Inc

TSSOP14

TXS0102DCTT

Texas Instruments, Inc

SSOP8

TXB0104QPWRQ1

Texas Instruments, Inc

TSSOP14

TXB0101DBVR

Texas Instruments, Inc

SOT23