



# New Product Announcement

---

## PI4GTL2002

## High-Speed 2-Bit Bidirectional GTL Low-Voltage Translator

The PI4GTL2002 is a GTL-LVTTL/TTL low-voltage translator. The device allows bidirectional voltage translations between 0.8V and 5.0V without use of a direction pin.

All transistors have the same electrical characteristics creating minimal deviation from one output to another in voltage or propagation delay, which is a benefit over discrete transistor voltage translation solutions because the fabrication of the transistors is symmetrical.

The translator's transistors provide excellent ESD protection to lower voltage devices while protecting less ESD-resistant devices.

The device is available in the MSOP-8 package type.



### The Diodes Advantage

- **Lower ON-State Connection Between Input and Output Ports**  
Provides less signal distortion
- **Lower Input and Output Capacitance**  
Reduces the propagation delay time (<1.5ns maximum) to accommodate standard mode and fast mode I<sup>2</sup>C-bus devices and multiple masters
- **Open-Drain Construction without Direction pin**  
Ideal for bidirectional low voltage (e.g., 0.8V, 1.0V, 1.2V, 1.5V, or 1.8V) processor I<sup>2</sup>C-bus port translation to the normal 3.3V/5.0V I<sup>2</sup>C-bus signal levels or GTL/GTL+ translation to LVTTL/TTL signal levels
- **ESD Protection Exceeds 4KV HBM per JESD22-A114**  
More robust solution

### Applications

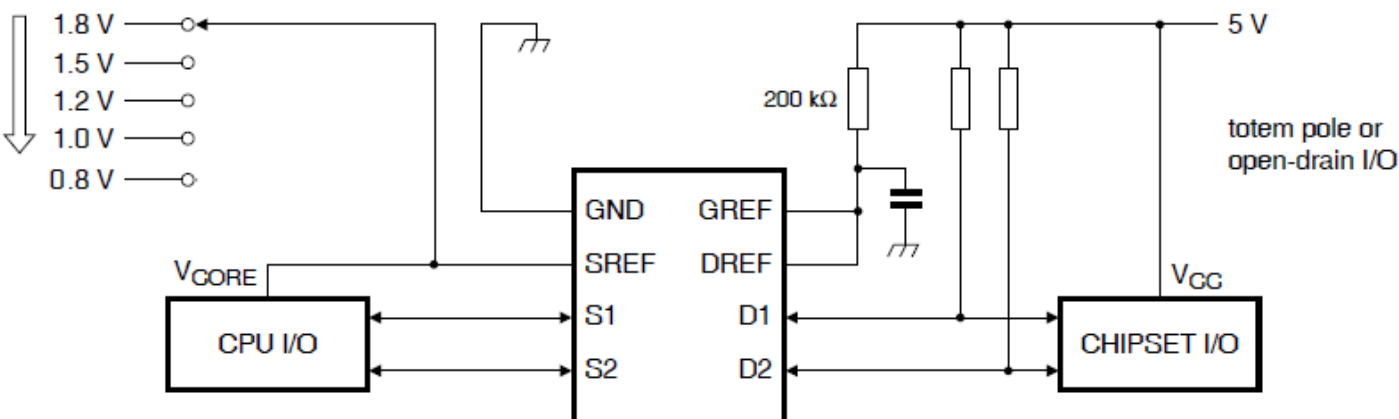
Server or networking applications as well as any application that requires bidirectional or unidirectional voltage-level translation from any voltage between 1.0V and 5.0V to any voltage between 1.0V and 5.0V.



# New Product Announcement

## PI4GTL2002

### Typical Application Circuit



### Product Portfolio

Part Number	Temperature Range	Voltage	Single Ended Channels	Signal Type	Package
PI4GTL2002UEX	-40°C to +85°C	0.8/5.5V	2	Single Ended	MSOP (U8) MSL 1 Sn

### Ordering Information

Part Numbers	Package Codes	Packages	Reel Sizes	Units per Reel
PI4GTL2002UEX	U	MSOP-8	13"	2,500

### Cross Reference

Competitors	Part Numbers	Packages	Diodes Ordering Part Numbers
NXP	GTL2002DP	MSOP-8	PI4GTL2002UEX

For more information: <https://www.diodes.com/part/PI4GTL2002>