

New Bi-Directional Level Translator Enables Seamless Data Flow in Multi-Voltage Systems

The 8-channel ADG3304/8 guarantees up to 40-Mbps data transfer between circuits with different logic levels over a 1.2-V to 5.5-V supply range, while reducing design work and component count.

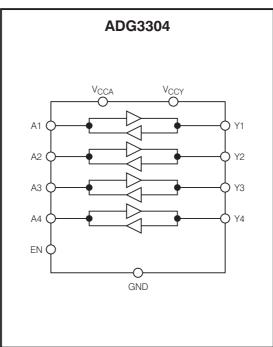


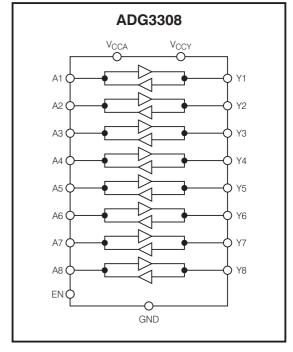
Features

- Bi-directional Level Translation
- Operates from 1.15 V to 5.5 V
- Low Quiescent Current < 1µA
- No direction Pin

Analog Devices has launched a new series of digital switches that allow a single IC to provide bi-directional data transfer and voltage translation. The ADG3308 is an 8-channel device whilst the ADG3304 is a 4-channel device.

The ADG3304/8 guarantee direct data transfer between devices operating from supplies as different as 1.2-V and 5.5-V. This large voltage translation range allows analog or digital devices having widely differing logic levels to communicate seamlessly in the smallest possible board area without losing data. Designers can use a mix of high- and low voltage circuitry in an application without requiring complex translation solutions that involve many discrete components. For example, a 1.5-V ASIC can easily communicate with a 3.3-V DAC (digital-to-analog converter) when the ADG3304/8 is placed between the devices in the signal chain.





Unlike current solutions, **the ADG3304/8 does not require a DIR pin to select the data direction** - it is automatically sensed by each individual channel in the device, allowing simultaneous read and write signals for more efficient data communication. Available in TSSOP as well as smaller LFCSP (lead frame chip scale packaging) options, the ADG3304/8 has tri-state switching on both input and output that provides greater design flexibility.

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