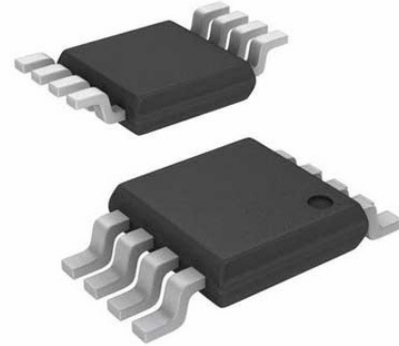


## IC 2WIRE BUS BUFFER 8MSOP

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	8-TSSOP8-MSOP
Product Type	Interface ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC4313IMS8-3#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC4313 is a hot swappable 2-wire bus buffer that provides bidirectional buffering while maintaining a low offset voltage and high noise margin up to  $0.3 \cdot V_{CC}$ . The high noise margin allows the LTC4313 to be interoperable with devices that drive a high  $V_{OL}$  ( $>0.4V$ ) and allows multiple LTC4313s to be cascaded. The LTC4313-1 and LTC4313-2 support level translation between 3.3V and 5V busses. In addition to these voltages, the LTC4313-3 also supports level translation to 1.5V, 1.8V and 2.5V.

During insertion, the SDA and SCL lines are pre-charged to 1V to minimize bus disturbances. Connection is established between the input and output after ENABLE is asserted high and a stop bit or bus idle condition has been detected on the SDA and SCL pins.

If both data and clock are not simultaneously high at least once in 45ms, the input is disconnected from the output. Up to 16 clock pulses are subsequently generated to free the stuck bus. Rise time accelerators (RTAs) provide pull-up currents on SDA and SCL rising edges to meet rise time specifications in heavily loaded systems. The RTAs are configured as slew limited switches in the LTC4313-1 and 2.5mA current sources in the LTC4313-2. The LTC4313-3 does not have RTAs.

## Applications

## Features

Bidirectional Buffer Increases Fanout

High Noise Margin with  $>CC$

Compatible with Non-Compliant I

2

C Devices That Drive a High V

OL

Strong (LTC4313-1) and 2.5mA (LTC4313-2) Rise Time Accelerator Current

Level Shift 1.5V, 1.8V, 2.5V, 3.3V and 5V Busses

Prevents SDA and SCL Corruption During Live Board Insertion and Removal from Backplane

Stuck Bus Disconnect and Recovery

Compatible with I

2

C, I

2

C Fast Mode and SMBus

High Impedance SDA, SCL Pins When Unpowered

8-Lead MSOP and 8-Lead (3mm × 3mm) DFN Packages

## Application

Capacitance Buffers/Bus Extender

Live Board Insertion

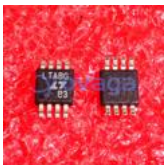
Telecommunications Systems Including ATCA

Level Translation

PMBus

Servers

## Related Products



[LTC4300A-1IMS8#PBF](#)

Analog Devices, Inc  
MSOP8



[LTC2870IUFD#PBF](#)

Analog Devices, Inc  
28-QFN



[LTC2870IFE#PBF](#)

Analog Devices, Inc  
TSSOP28



[LTC6820IMS#PBF](#)

Analog Devices, Inc  
MSOP16



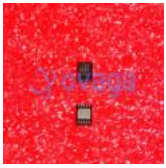
[LTC6820HMS#PBF](#)

Analog Devices, Inc  
MSOP-16



[LTM2881IV-3#PBF](#)

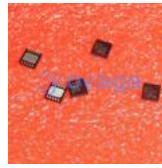
Analog Devices, Inc  
LGA32



[LTC2854HDD#PBF](#)

Analog Devices, Inc

QFN-10



[LTC2852IDD#PBF](#)

Analog Devices, Inc

DFN10