

## NLA9306

# Dual Bidirectional I<sup>2</sup>C Bus and SMBus Voltage Level Translator

## Product Overview

For complete documentation, see the data sheet.

The NLA9306 is a dual bidirectional I2C Bus and SMBus voltage level translator with an enable (EN) input.

### Features

- 2-bit Bidirectional Translator for SDA and SCL Lines in MixedMode I2C Bus Applications
  - StandardMode, FastMode, and FastMode Plus I2C Bus and SMBus Compatible
  - Less Than 1.5 ns Maximum Propagation Delay to Accommodate StandardMode and FastMode I2C Bus Devices and Multiple Masters
  - Allows Voltage Level Translation Between: 1.0 V Vref(1) and 1.8 V, 2.5 V, 3.3 V or 5 V Vbias(ref)(2) 1.2 V Vref(1) and 1.8 V, 2.5 V, 3.3 V or 5 V Vbias(ref)(2) 1.8 V Vref(1) and 3.3 V or 5 V Vbias(ref)(2) 2.5 V Vref(1) and 5 V Vbias(ref)(2) 3.3 V Vref(1) and 5 V Vbias(ref)(2)
  - Provides Bidirectional Voltage Translation With No Direction Pin
  - Low 3.5 ONState Connection Between Input and Output Ports Provides Less Signal Distortion
  - OpenDrain I2C Bus I/O Ports (SCL1, SDA1, SCL2 and SDA2)
  - 5 V Tolerant I2C Bus I/O Ports to Support MixedMode Signal Operation
  - High Impedance SCL1, SDA1, SCL2 and SDA2 Pins for EN = LOW
  - LockUp Free Operation
- For more features, see the data sheet

### Benefits

- Enables proper operation between buses with different supply voltages

### Applications

- Tablet, Handset, etc

### End Products

- Tablet, Handset, etc

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channels	Input Level	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	t <sub>pd</sub> Max (ns)	I <sub>O</sub> Max (mA)	Package Type
NLA9306MU3T AG	0.2387		Active	2	CMOS	0	5.5	2	64	UDFN-8
NLA9306MU3T CG	0.2387		Active	2	CMOS	0	5.5	2	64	UDFN-8
NLA9306MUQ1 TCG	0.2		Active	2	CMOS	0	5.5	2	64	UQFN-8