

## Product Overview

### NCN1154: DP3T Data Switch, USB 2.0 High Speed / Audio, with Negative Swing Capability

For complete documentation, see the data sheet.

The NCN1154 is a DP3T switch for combined true-ground audio, USB 2.0 high speed data, and UART applications. It allows portable systems to use a single port to pass either USB data or audio signals from an external headset; the 3 channels being compliant to USB 2.0, USB 1.1 and USB 1.0. The switch is capable of passing signals with negative voltages as low as 2 V below ground. The NCN1154 features shunt resistors on the audio ports. These resistors are switched in when the audio channel is off and provide a safe path to ground for any charge that may build up on the audio lines. This reduces Pop & Click noise in the audio system. The device has an extended VCC range which can operate off VCC up to 4.2 V while passing true ground audio signals down to -2 V.

#### Features

- 3:1 High Speed Switch
- 5.25 V tolerant on common pins
- High Bandwidth of 820 MHz
- Capable of passing negative swing signals down to -2V on R/L channel
- 1.8 V compatible control pin
- Audio channel shunt resistors
- Ultra-low THD

#### Applications

- Shared High Speed data or audio on a single connector
- Micro or Mini USB applications

#### Benefits

- Multiplexe audio or high speed data or UART signals path from a single USB receptacle
- Support any short to VBUS
- USB2.0, USB1.1, USB1.0 capable on all channels
- Can connect an audio true ground amplifier to a micro USB headset
- GPIO Low Voltage Control
- Pop and click noise reduction
- Minimal audio distortion

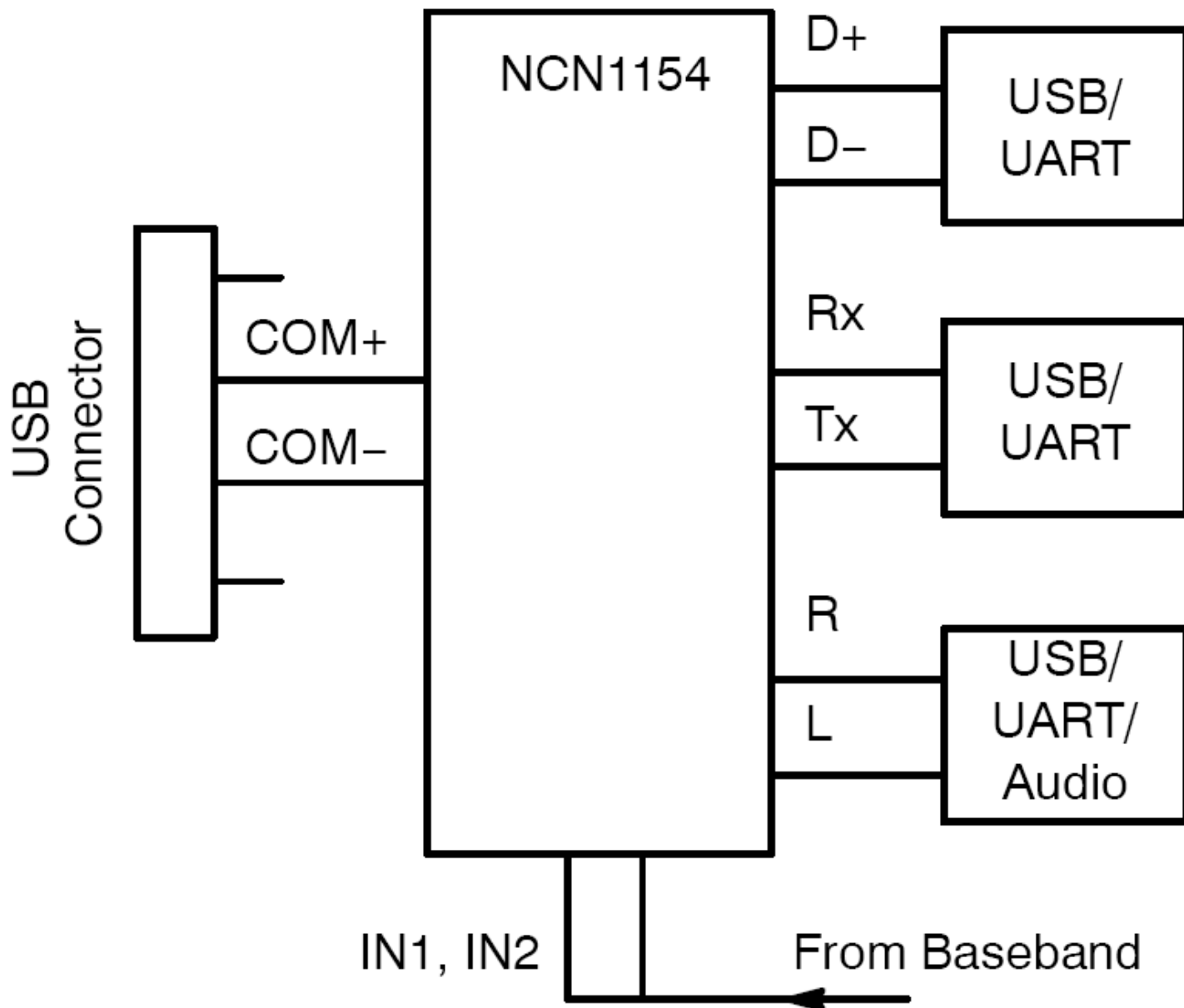
#### End Products

- GPS
- Cellular and wireless phones
- Tablets and Portable gaming
- Bar Code Scanners

### Part Electrical Specifications

Product	Compliance	Status	Channels	Number of Switches	Configuration	$I_{cc}$ Max ( $\mu$ A)	$r_{on}$ Max ( $\Omega$ )	$V_{CC}$ Min (V)	$V_{CC}$ Max (V)	Package Type
NCN1154MUTAG	Pb-free	Active	2	1	DP3T	35	7.5	2.7	5	UQFN-12
	Halide free									

Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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