

NCP2811

Audio Power Amplifier, True Ground Stereo Headphone

Product Overview

For complete documentation, see the data sheet.

NCP2811 is a dual audio power amplifier designed for portable communication device applications such as mobile phones. This part is capable of delivering 27 mW of continuous average power into a 16 Ω load from a 2.7 V power supply with a THD+N of 1%. Based on the power supply delivered to the device, an internal power management block generates a symmetrical positive and negative voltage. Thus, the internal amplifiers provide outputs referenced to Ground. In this NOCAP™ configuration, the two external heavy coupling capacitors can be removed. It offers significant space and cost savings compared to a typical stereo application. NCP2811 is available with an external adjustable gain (version A), or with an internal gain (version B). It reaches a superior PSRR and noise floor. Thus, it offers high fidelity audio sound, as well as a direct connection to the battery. It contains circuitry to prevent from Pop and Click noise that would otherwise occur during turn on and turn off transitions. The device is available in 12 bump CSP package (2 x 1.5 mm) which help to save space on the board.

Features

- NoCap™ Output Eliminate DC-Blocking Capacitors
- High PSRR : -100 dB
- Pop and Click protection circuitry
- Internal gain (-1.5 V/V) or external gain
- 2.7V-5.0V Operation
- Thermal overload protection circuitry

Applications

- Stereo headphone amplifier

Benefits

- Save board area and component cost
- Direct connection to the battery
- High quality audio playback

End Products

- Cellular phones
- Personal Digital Assistant and Portable Media Player
- MP3 Player
- Notebook PC

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Class	Output Power Typ (W)	V _{CC} Max (V)	Output Type	t _{on} Typ (ms)	THD + N Typ (%)	I _Q Typ (mA)	I _{SD} Typ (nA)	Package Type
NCP2811ADTBR2G	0.3867		Active	AB	0.11	5	Multiple Analog	1	0.01	6	10	TSSOP-14
NCP2811BFCCT1G	0.3987		Active	AB	0.11	5	Multiple Analog	1	0.01	6	10	Flip-Chip-12

Application Diagram

