

TPA2006D1 – Mono Class-D Speaker Amplifier

One Page Overview

Product Description:

The TPA2006D1 is a mono 1.45-W High-Efficiency, Filter-Free Class-D audio power amplifier that only requires three external components for operation. It features a 1.8V compatible voltage on the shutdown pin which is ideal for interface to the latest DSPs, ASICs and wireless basebands. It is available in a 3x3mm QFN package. Features like 88% efficiency make the TPA2006D1 perfect for any battery operated device that uses a speaker.

Key Parameters:

- Supply Voltage Range: 2.5 V – 5.5 V
- Output Power: 590 mW (at 3.6 V into 8 Ω)
- Power Supply Rejection Ratio (PSRR @ 217 Hz): 67 dB
- Noise Floor: 36 μV_{RMS} (A-weighted)

Nano-Evaluation Module Description:

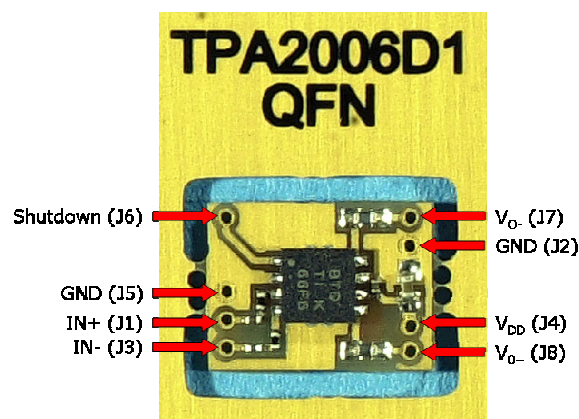
The TPA2006D1 NanoEVM included within this kit can easily be pushed out of the main NanoEVM PCB and have been made as small as possible to be soldered directly onto a customer's board for immediate evaluation of the device in the system. It contains all the external components needed for correct operation. For full evaluation, please request a standard size EVM (TPA2006D1EVM).

Nano-Evaluation Module Board Use:

Before you connect the NanoEVM to a power supply or please check the picture below to ensure the correct connections.

Please note following important device limitations:

- Maximum Supply Voltage: 5.5 V
- Recommended Supply Voltage Range: 2.5 V to 5.5 V
- Minimum Speaker Impedance: 8 ohms



TPA2006D1 NanoEVM

The Nano EVM is not designed to test the full functionality of the device. For further product information including the board schematics, BOM and the link to the product folder, please visit the following web site: www.ti.com/analogportable

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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