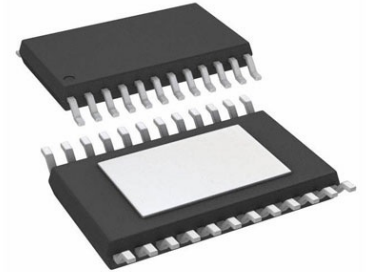


Audio Amp Speaker 2-CH Stereo 3W Class-D 24-Pin HTSSOP EP T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: HTSSOP24

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The TPA2008D2 is a third generation 5-V class-D amplifier from Texas Instruments. Improvements to previous generation devices include: dc volume control, lower supply current, lower noise floor, higher efficiency, smaller packaging, and fewer external components. Most notably, a new filter-free class-D modulation technique allows the TPA2008D2 to directly drive the speakers, without needing a low-pass output filter consisting of two inductors and three capacitors per channel. Eliminating this output filter saves approximately 30% in system cost and 75% in PCB area.

The improvements and functionality make this device ideal for LCD projectors, LCD monitors, powered speakers, and other applications that demand more battery life, reduced board space, and functionality that surpasses currently available class-D devices.

A chip-level shutdown control limits total supply current to 1 μ A, making the device ideal for battery-powered applications. Protection circuitry increases device reliability: thermal and short circuit. Undervoltage shutdown saves battery power for more essential devices when battery voltage drops to low levels.

The TPA2008D2 is available in a 24-pin TSSOP PowerPAD package.

Key Features

3 W Per Channel into 3-

DC Volume Control With 2-dB Steps From 38 dB to 20 dB

Filter Free Modulation Scheme Operates Without a Large and Expensive LC Output Filter

Extremely Efficient Third Generation 5-V Class-D Technology

Low Supply Current, 7 mA

Low Shutdown Control, 1 μ A

Low Noise Floor, 80 dBV

Maximum Efficiency into 3

Maximum Efficiency into 8

PSRR, 70 dB

Integrated Depop Circuitry

Operating Temperature Range, 40°C to 85°C

Space-Saving, Surface Mount PowerPAD Package

APPLICATIONS

LCD Projectors

LCD Monitors

Powered Speakers

Battery Operated and Space Constrained Systems

Recommended For You

TPA3125D2N

Texas Instruments, Inc

DIP20

TPA6111A2DR

Texas Instruments, Inc

SOP8

TPA2012D2RTJR

Texas Instruments, Inc

QFN20

TPA6132A2RTJER

Texas Instruments, Inc

QFN

TPA2013D1RGPR

Texas Instruments, Inc

QFN20

TPA2010D1YZFR

Texas Instruments, Inc

DSBGA9

TPA3118D2QDAPRQ1

Texas Instruments, Inc

HTSSOP-32

TPA6211A1TDGNRQ1

Texas Instruments, Inc

MSOP8

TAS5414CTPHDRQ1

Texas Instruments, Inc

HTQFP-64

PCMI681TPWPRQ1

Texas Instruments, Inc

HTSSOP28

TPA3131D2RHBR

Texas Instruments, Inc

VQFN32

TPA3100D2PHP

Texas Instruments, Inc

QFP

TPA3244DDWR

Texas Instruments, Inc

HTSSOP-44

TPA6017A2PWP

Texas Instruments, Inc

HTSSOP20

TPA4861D

Texas Instruments, Inc

SOP8