

Audio Amp Speaker 1-CH Mono/2-CH Stereo/4-CH Stereo 480W
Class-D 44-Pin HSSOP EP T/R



Images are for reference only

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: HSSOP44

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: LTB

[Inquiry](#)

General Description

The TAS5630B device is a high-performance analog-input class-D amplifier with integrated closed-loop feedback technology (known as PurePath HD technology) with the ability to drive up to 300 W. Achievable output power levels are dependent on the thermal configuration of the target application. A high-performance thermal interface material between the exposed package heat slug and the heat sink should be used to achieve high output power levels. stereo into 4-Ω to 8-Ω speakers from a single 50-V supply.

PurePath HD technology enables traditional AB-amplifier performance (< 0.03% THD) levels while providing the power efficiency of traditional class-D amplifiers.

Unlike traditional class-D amplifiers, the distortion curve does not increase until the output levels move into clipping.

PurePath HD technology enables lower idle losses, making the device even more efficient. When coupled with TI's class-G power-supply reference design for TAS563x, industry-leading levels of efficiency can be achieved.

Key Features

PurePath™ HD Enabled Integrated Feedback

Provides:

Signal Bandwidth up to 80 kHz for High-

Frequency Content From HD Sources

Ultralow 0.03% THD at 1 W into 4 Ω

Flat THD at All Frequencies for Natural Sound

80-dB PSRR (BTL, No Input Signal)

Click- and Pop-Free Start-up

Multiple Configurations Possible on the Same

PCB With Stuffing Options:

Mono Parallel Bridge-Tied Load (PBTL)

Stereo Bridge-Tied Load (BTL)

~~2.1 Single-Ended Stereo Pair and BTL~~

Subwoofer

Quad Single-Ended Outputs

Total Output Power at 10% THD+N

400 W in Mono PBTL Configuration

300 W per Channel in Stereo BTL

Configuration

145 W per Channel in Quad Single-Ended

Configuration

High-Efficiency Power Stage (> 88%) With 60-mΩ

Output MOSFETs

Two Thermally Enhanced Package Options:

PHD (64-Pin QFP)

DKD (44-Pin PSOP3)

Self-Protection Design (Including Undervoltage,

Overtemperature, Clipping, and Short-Circuit

Protection) With Error Reporting

EMI Compliant When Used With Recommended

System Design

APPLICATIONS

Mini Combo System

AV Receivers

DVD Receivers

Active Speakers

Recommended For You

TAS5142DKD

Texas Instruments, Inc

HSSOP36

TAS5717PHPR

Texas Instruments, Inc

HTQFP48

TAS5411QPWPRQ1

Texas Instruments, Inc

HTSSOP16

TAS5342ADDVR

Texas Instruments, Inc

HTSSOP44

TAS5707PHPR

Texas Instruments, Inc

HTQFP48

TAS5760MDAPR

Texas Instruments, Inc

HTSSOP32

TAS5760MDCAR

Texas Instruments, Inc
HTSSOP48

TAS5414CTPHDRQ1

Texas Instruments, Inc
HTQFP-64

TAS2505IRGET

Texas Instruments, Inc
VQFN24

TAS2505IRGER

Texas Instruments, Inc
VQFN-24

TAS5086DBTR

Texas Instruments, Inc
TSSOP38

TAS3004PFB

Texas Instruments, Inc
QFP

TAS3004PFB

Texas Instruments, Inc
TQFP-48

TAS5076PFC

Texas Instruments, Inc
QFP

TAS3108DCP

Texas Instruments, Inc
HTSSOP38