

150W STEREO / 300W MONO PurePath™ HD DIGITAL-INPUT POWER STAGE

Check for Samples: [TAS5614](#)

FEATURES

- PurePath™ HD Enabled Integrated Feedback Provides:
 - Signal Bandwidth up to 80kHz for High Frequency Content From HD Sources
 - Ultralow 0.03% THD at 1W into 4Ω
 - Ultralow 0.01% THD at 1W into 8Ω
 - Flat THD at all Frequencies for Natural Sound
 - 80dB PSRR (BTL, No Input Signal)
 - >100dB (A weighted) SNR
 - Click and Pop Free Startup
- Pin compatible with TAS5631, TAS5616 and TAS5612
- 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 Bridge Tied Load Subwoofer
- Total Output Power at 10%THD+N
 - 300W in Mono PBTL Configuration
 - 150W per Channel in Stereo BTL Configuration
- Total Output Power in BTL Configuration at 1%THD+N
 - 160W Stereo into 3Ω
 - 125W Stereo into 4Ω
 - 85W Stereo into 6Ω
 - 65W Stereo into 8Ω
- >90% Efficient Power Stage With 60-mΩ Output MOSFETs
- Self-Protection Design (Including Undervoltage, Overtemperature, Clipping, and Short-Circuit Protection) With Error Reporting
- EMI Compliant When Used With Recommended System Design
- Two Thermally Enhanced Package Options:
 - PHD (64-Pin QFP)
 - DKD (44-Pin PSOP3)

APPLICATIONS

- Home Theater Systems
- AV Receivers
- DVD/Blu-ray™ Receivers
- Mini Combo Systems
- Active Speakers and Subwoofers

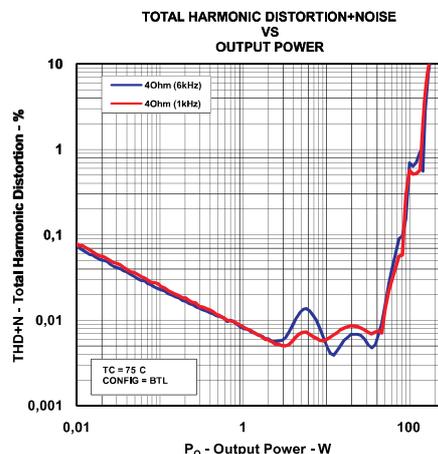
DESCRIPTION

The TAS5614 is a high performance analog input Class D amplifier with integrated closed loop feedback technology (known as PurePath™ HD) with the ability to drive up to 150W ⁽¹⁾ Stereo into 4 to 8 Ω Speakers from a single 36V 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 only increases once the output levels move into clipping.

PurePath™ HD technology enables lower idle losses making the device even more efficient.



- (1) Achievable output power levels are dependent on the thermal configuration of the target application. A high performance thermal interface material between the package exposed heatslug and the heat sink should be used to achieve high output power levels.



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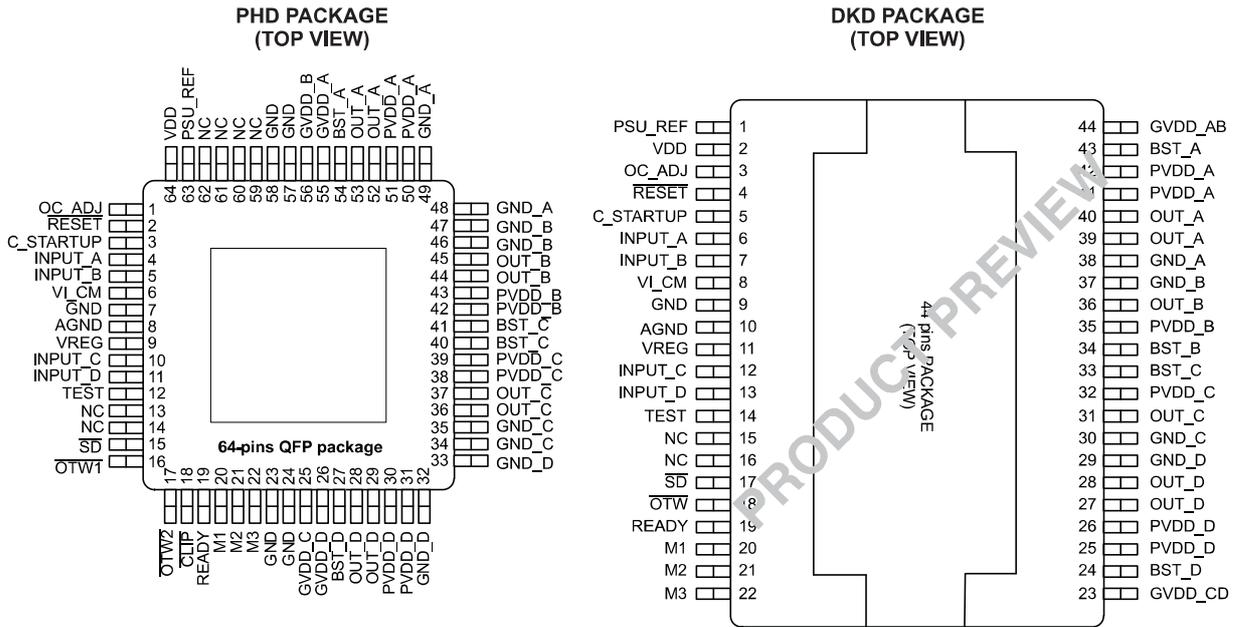


These devices have limited built-in ESD protection. The leads should be shorted together or the device placed in conductive foam during storage or handling to prevent electrostatic damage to the MOS gates.

DEVICE INFORMATION

Terminal Assignment

Both package types contains a heat slug that is located on the top side of the device for convenient thermal coupling to the heat sink.



PIN ONE LOCATION PHD PACKAGE

