



Preliminary

OCA7198

Dual 2.1W Audio Amplifier Plus Stereo Headphone & 3D Enhancement

ORIENT-CHIP

General Description

The OCA7198 is a dual bridge-connected audio power amplifier which, when connected to a 5V supply, will deliver 2.1W to a 4Ω load (Note 1) or 2.4W to a 3Ω load (Note 2) with less than 1.0% THD+N.

A user selectable "OCS 3D Enhancement" mode provides enhanced stereo imaging.

The OCA7198 also has two separate HP (headphone) enable inputs, each having different logic level thresholds. Either HP enable input activates the single ended headphone mode and disables the BTL output mode. The HP Sense input is for use with a normal stereo headphone jack. The remaining input, HP Logic, accepts standard logic level thresholds.

Boomer audio power amplifiers were designed specifically to provide high quality output power from a surface mount package while requiring few external components. To simplify audio system design, the OCA7198 combines dual bridge speaker amplifiers and stereo headphone amplifiers on one chip.

The OCA7198 features a low-power consumption shutdown mode and thermal shutdown protection. It also utilizes circuitry to reduce "clicks and pops" during device turn-on.

Note 1: An OCA7198 that has been properly mounted to a circuit board will deliver 2.1W into 4Ω. See the Application Information sections for further information concerning the OCA7198.

Note 2: An OCA7198 that has been properly mounted to a circuit board and forced-air cooled will deliver 2.4W into

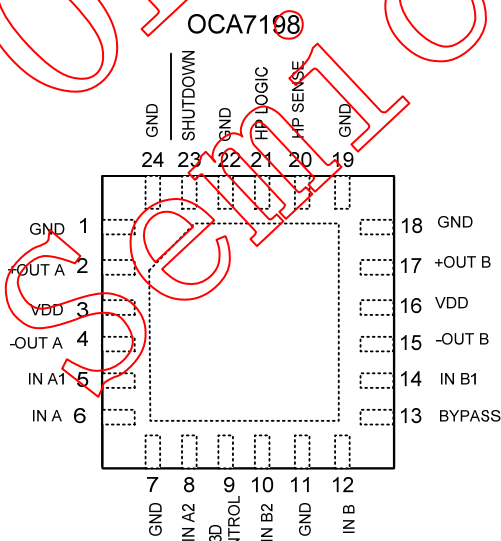
Features

- Po at 1% THD+N, VDD = 5V
 - RL = 3Ω 2.4W (typ)
 - RL = 4Ω 2.1W (typ)
 - RL = 8Ω 1.3W (typ)
- Single-ended mode THD+N at 75mW into 32Ω (5V, 1kHz) 0.01% (typ)
- Shutdown current 0.04μA (typ)
- Supply voltage range 2.7V to 5.5V
- PSRR at 217Hz 85dB (typ)
- OCS 3D Enhancement
- Selectable headphone enable modes
- Stereo headphone amplifier mode
- Improved "click and pop" suppression circuitry
- Thermal shutdown protection circuitry
- PCB area-saving QFN24(4x4) package
- Micro-power shutdown mode

Applications

- Cell phones
- Multimedia monitors
- Portable and desktop computers
- Portable audio systems

Pin Configuration



Top View
QFN24(4x4)
Order Number OCA7198QAD

Contact Information:

For more detail information , please direct any inquiries and/or comments to info@orient-chip.com.



Typical Application

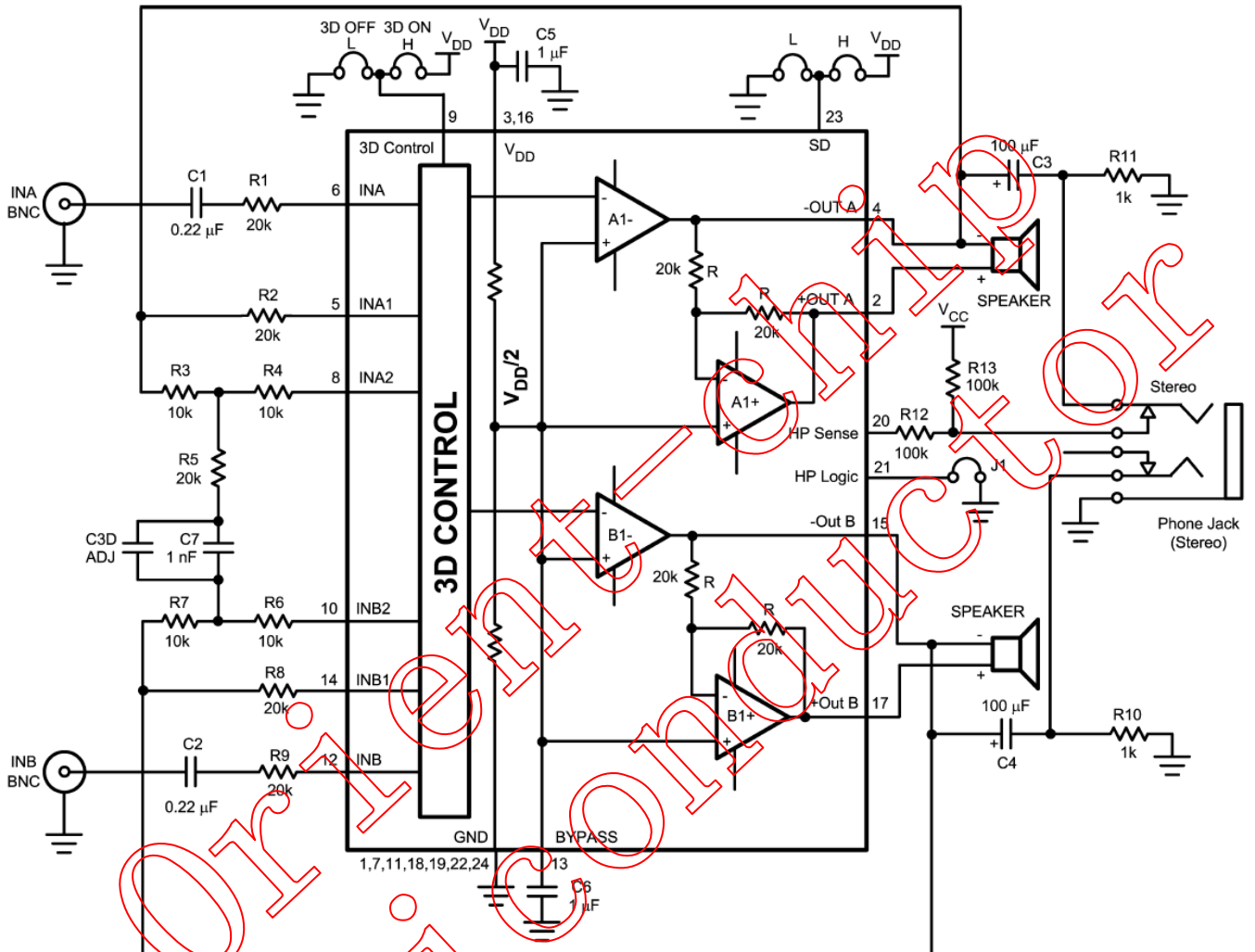


Figure 1. Typical Audio Amplifier Application Circuit