

33mW CAP FREE STEREO HEADPHONE AMPLIFIER

■ Features

- No Need for DC-Blocking Capacitors
 - Outputs Biased at 0V
 - Excellent Low Frequency Fidelity
- 3.6mA Typical Supply Current
- Low Standby Current: 0.1μA
- Differential or Single-Ended Inputs
 - Built-In Resistors Reduces Component Count
 - Improves System Noise Performance
- Low THD+N: 0.014% (3.6V, 32ohm, 20mW)
- Output Power: 33mW (PVDD=3.6V, $R_L=32\Omega$, THD+N=1%)
- Power Supply: 2.5V-5.5V
- Gain Setting: -6/0/3/6 dB
- Thermal-Overload and Low Voltage Malfunction Prevention Function
 - Pb-Free, Small Package available
 - QFN16 (3m*3m)

■ Description

HT4832 / HT4831 is a stereo headphone amplifier that eliminates the need for external dc-blocking output capacitors.

HT4832 / HT4831 features stereo inputs that can be set in either differential or single-ended input. 4 different gain with different built-in resistors reducing external component is selectable.

HT4832 / HT4831 drives 33mW into 32ohm speakers/headphone from a 3.6V supply. THD+N is 0.014% low.

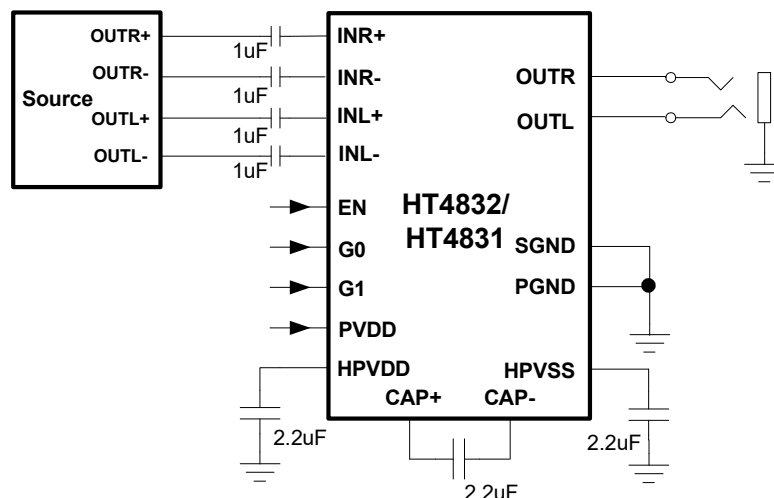
HT4832 / HT4831 operates from a single 2.5V to 5.5V supply with 3.6mA of typical supply current. Shutdown mode reduces supply current to less than 1μA.

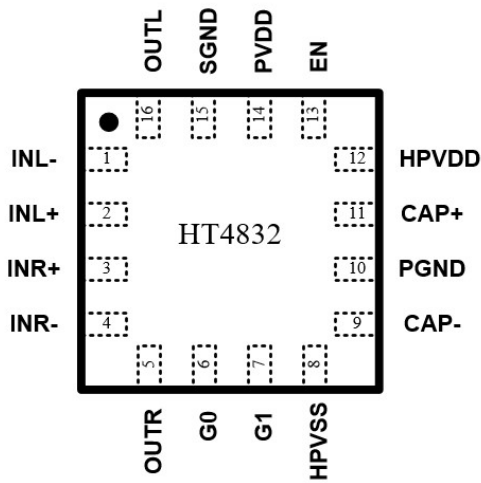
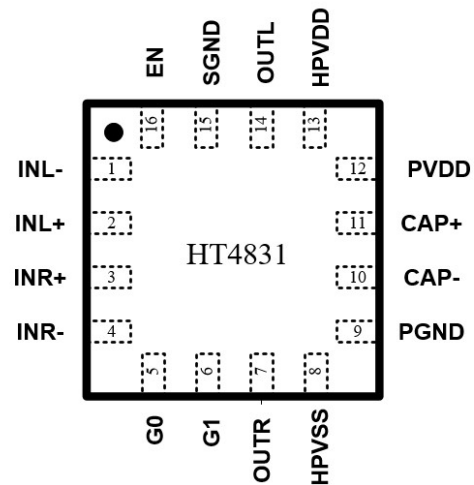
Thermal-overload protection, low voltage malfunction prevention function is integrated in HT4832 / HT4831.

■ Application

- Bluetooth headset
- Smart phone
- Portable speaker
- Tablet/Notebook
- CD/MP3
- Portable Gaming

■ Typical Application



Terminal Configuration

QFN16 Top View

QFN16 Top View
引脚定义*1

Pin No.		Pin Name	I/O	Pin Description
HT4832	HT4831			
1	1	INL-	I	Inverting left input for differential signals; left input for single-ended signals
2	2	INL+	I	Non-inverting left input for differential signals. Connect to ground for single-ended input applications
3	3	INR+	I	Non-inverting right input for differential signals. Connect to ground for single-ended input applications
4	4	INR-	I	Inverting right input for differential signals; right input for single-ended signals
5	7	OUTR	O	Right headphone amplifier output. Connect to right terminal of headphone jack
6	5	G0	I	Gain select
7	6	G1	I	Gain select
8	8	HPVSS	P	Charge pump output and negative power supply for output amplifiers; connect 2.2μF capacitor to GND
9	10	CAP-	P	Charge pump negative flying cap. Connect to negative side of 2.2μF capacitor between CP+ and CP-
10	9	PGND	P	Ground
11	11	CAP+	P	Charge pump positive flying cap. Connect to positive side of 2.2μF capacitor between CP+ and CP-
12	13	HPVDD	P	Positive power supply for headphone amplifiers. Connect to a 2.2μF capacitor. Do not connect to PVDD
13	16	EN	I	Amplifier enable. Connect to logic low to shutdown; connect to logic high to activate
14	12	PVDD	P	Positive power supply
15	15	SGND	I	Amplifier reference voltage. Connect to ground terminal of headphone jack
16	14	OUTL	O	Left headphone amplifier output. Connect to left terminal of headphone jack

*1 I: Input Terminal O: Output Terminal P: Power/Ground

■ Ordering Information

H T 4 8 3 X XX

Package Type

Part No.	Package type	Marking	Operating Temperature Range	MOQ/Shipping Package
HT483XSQ	QFN16	HT483XSQ UVWXYZ ^{*2}	-40°C~85°C	

*2: WXYZ/UVWXYZ is production track code.

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