

## 2×50W D类立体声音频功放

### 2×50W Class D Stereo Amplifier

#### ■ FEATURES

- Output Power (BTL)
  - 2×40W (VDD=18V, RL=4Ω, THD+N=10%)
  - 2×50W (VDD=24V, RL=6Ω, THD+N=10%)
  - 2×40W (VDD=24V, RL=8Ω, THD+N=10%)
- Output Power (PBTL)
  - 80W (VDD=24V, RL=4Ω, THD+N=10%)
  - 100W (VDD=24V, RL=3Ω, THD+N=10%)
- Single Wide Voltage Supply: 4.5V-26V
- Efficiency > 90%
- Spread spectrum function
- MUTE function
- Differential / Single-ended Analog Input, BTL or PBTL Output
- Selectable Gain: 32dB or 26dB
- Integrated Self-protection Circuits Including Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent with Error Reporting
- LF and HF Package of ETSSOP32
- 输出功率 (BTL)
  - 2×40W (VDD=18V, RL=4Ω, THD+N=10%)
  - 2×50W (VDD=24V, RL=6Ω, THD+N=10%)
  - 2×40W (VDD=24V, RL=8Ω, THD+N=10%)
- 输出功率 (PBTL模式)
  - 80W (VDD=24V, RL=4Ω, THD+N=10%)
  - 100W (VDD=24V, RL=3Ω, THD+N=10%)
- 单电源系统, 4.5V-26V宽电压输入范围
- 超过90%效率, 无需散热器
- 扩频功能
- MUTE功能
- 模拟差分/单端输入, 输出模式立体声/单声道可选
- 可选增益: 32dB/26dB
- 保护功能: 过压/过流/过热/欠压异常, 直流检测和短路保护
- 无铅无卤封装, ETSSOP32

#### ■ APPLICATIONS

- Sound Bars
- Wireless Speakers
- 条形音箱
- 无线智能音箱
- Consumer Audio Applications
- TVs/Monitors
- 便携式音箱
- 消费类音频应用
- 拉杆音箱
- LCD电视/监视器

#### ■ DESCRIPTION

HT3386 is a stereo efficient, Class-D audio amplifier for driving speakers up to 50W/6 Ω in stereo BTL. It can also deliver 100W/3Ω power in stereo PBTL.

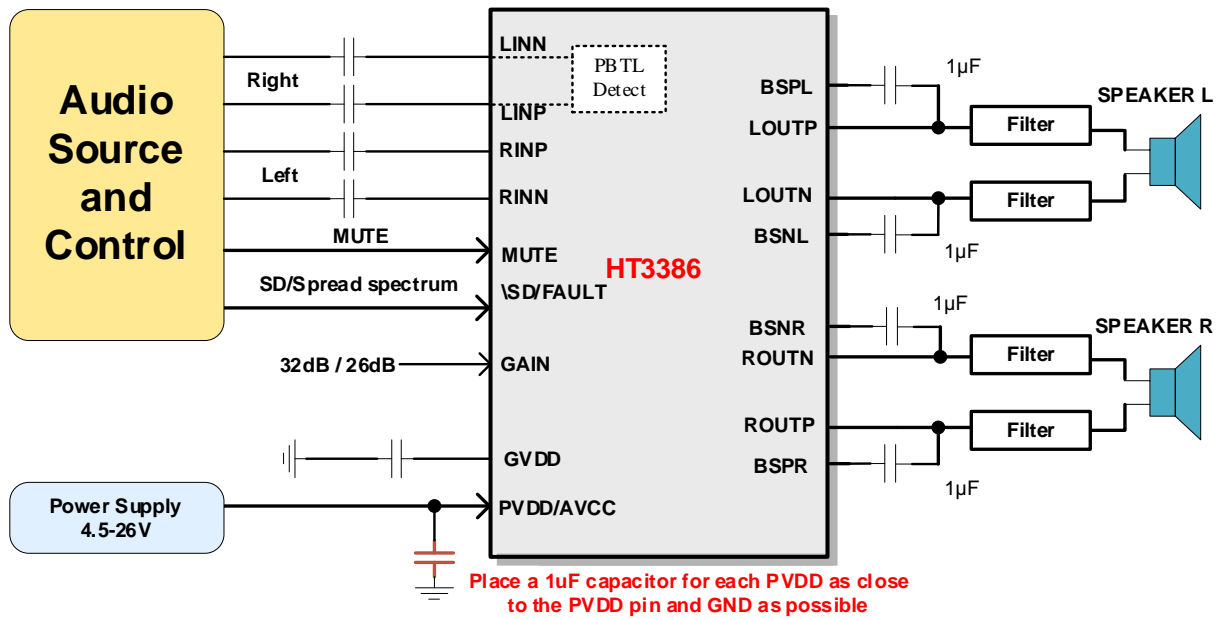
Spread spectrum function is available to achieve advanced EMI Suppression.

The built-in shutdown function can minimize the standby current of HT3386. The device also integrates MUTE function. HT3386 is fully protected against faults with Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent protection. Faults can be reported to the processor to prevent devices from being damaged.

HT3386是一款高效D类音频功率放大器。在24V供电的立体声 (BTL)、THD+N=10%条件下,能够持续提供2×40W/6 Ω 功率输出;在单声道 (PBTL)、模式、THD+N=10%条件下,能够持续提供100W/3 Ω 功率输出。

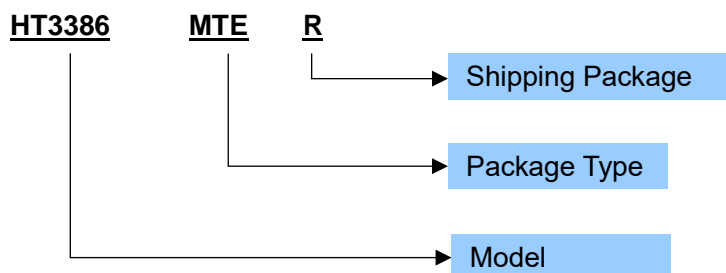
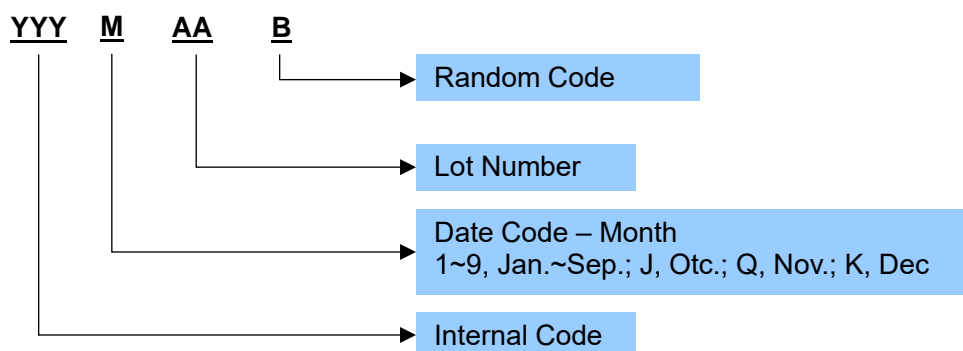
HT3386具有先进的扩频功能来抑制EMI。此外,HT3386内置关断功能使待机电流最小化,同时内置了MUTE功能,还集成了过压保护、直流保护、短路保护、热保护和电源欠压异常保护等功能,可全面防止出现故障。

## ■ TYPICAL APPLICATION



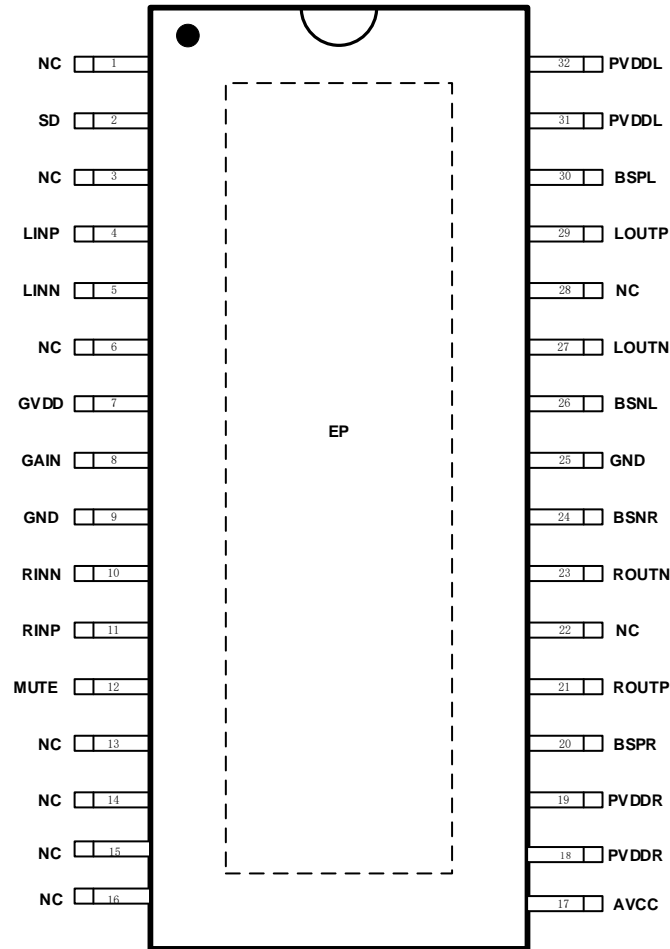
**ORDERING INFORMATION**

Part Number	Package Type	Marking	Operating Temperature Range	Shipping Package / MOQ
HT3386MTER	ETSSOP32 (MTE)	HT3386 YYYMAAB <sup>1</sup>	-40℃~85℃	Tape and Reel (R) / 2000

**Part Number**

**Production Tracking Code**


<sup>1</sup> YYYMAAB is production tracking code  
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## ■ TERMINAL CONFIGURATION



**HT3386 Top View**

## ■ TERMINAL FUNCTION

Terminal No.	Name	I/O <sup>1</sup>	Description
1/3/6/13/14/15/ 16/22/28	NC	-	NC, Connect to Ground for better thermal performance
2	\SD/FAULT	I	SD/FAULT, multi-function pin. When pulled down, place the speaker amplifier in shutdown mode. General fault reporting including Over-Temp, Over-Current, DC Detect.
4	LINP	I	Positive input terminal for L channel
5	LINN	I	Negative input terminal for L channel
7	GVDD	O	Voltage regulator derived from AVDD supply, connect 1uF to GND
8	GAIN	I	Gain select pin. Low = 26dB gain; High or floating = 32dB
9,25	GND	G	Ground
10	RINN	I	Negative input terminal for R channel
11	RINP	I	Positive input terminal for R channel
12	MUTE	I	When pulled high, place the speaker amplifier in MUTE mode. When pulled low or be floating, place the speaker amplifier in normal operation.
17	AVCC	P	Analog power supply.
18,19	PVDDR	P	Power Supply for amplifier drivers of R channel
20	BSPR	BST	Connection point for the ROUTP bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROUTP
21	ROUTP	O	Positive pin for differential speaker amplifier output R
23	ROUTN	O	Negative pin for differential speaker amplifier output R
24	BSNR	BST	Connection point for the ROUTN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROUTN

<sup>1</sup> I: Input; O: Output; G: Ground; P: Power; BST: BOOT Strap;

26	BSNL	BST	Connection point for the LOUTN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOUTN
27	LOUTN	O	Negative pin for differential speaker amplifier output L
29	LOUTP	O	Positive pin for differential speaker amplifier output L
30	BSPL	BST	Connection point for the LOU TP bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOU TP
31,32	PVDDL	P	Power Supply for amplifier drivers of L channel
EP	NC	G	Provides thermal connection from the device to the board. A matching ground pad must be provided on the PCB and the device connected to it via solder. 散热PAD，接地平面利于散热。

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