

125mW 免输出耦合电容的立体声线路驱动器/耳机放大器

■ 特点

- 输出无需隔直流电容
- 卓越的低音效果
- 无咔嗒/噼噗声
- 低 THD+N: 最低 0.002%
- 低噪声, V_N 8 μ V
- 支持单端输入和全差分输入
- 1.65V 至 4.8V 较宽的电源工作范围
- 4.2V 供电, 为 32 Ω 负载提供 125mW 输出功率 (THD+N = 0.1%)
- QFN16 3mm*3mm 封装

■ 概述

HT97180为差分输入、可直接输出的耳机放大器。4.2V供电时, 器件为32 Ω 耳机负载提供125mW 驱动。IC可以通过外部电阻调整增益。

IC具有较宽的电源工作范围, 最低支持1.6V工作。

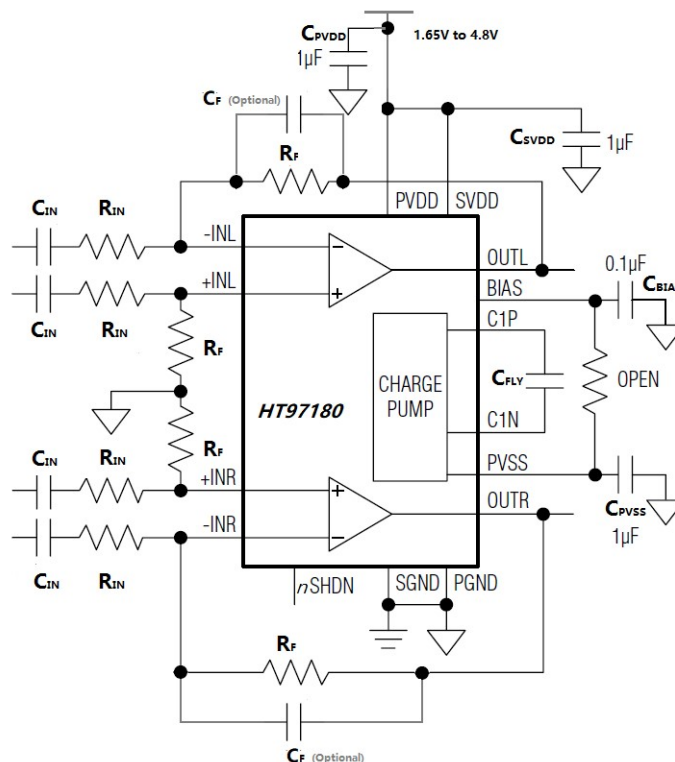
IC内部电荷泵对输入电源反相, 产生负电源。放大器的输出级由输入正电源和电荷泵输出负电源供电, 双极性供电使得输出偏置在零电位, 省去了大尺寸、容易引入失真的输出耦合电容。

IC上电或断电时没有咔嗒/噼噗声。

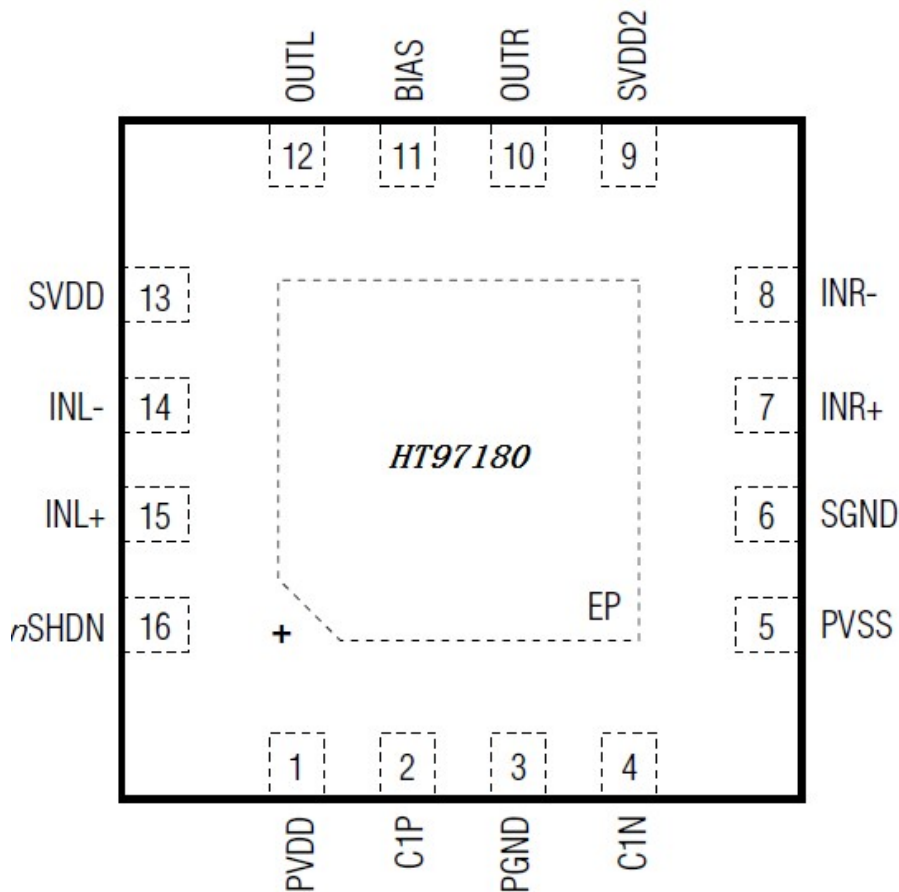
■ 应用

- 蓝牙耳机
- 音响, DVD
- 机顶盒
- 智能手机
- 平板/笔记本电脑
- 便携式游戏机

■ 典型应用图



引脚信息



引脚定义

序号	管脚名	功能说明
1	PVDD	电荷泵电源输入，接1uF滤波电容到PGND
2	C1P	电荷泵飞电容正端，接0.47uF电容到电荷泵飞电容负端
3	PGND	电源功率地，与SGND连一起接板极系统地
4	C1N	电荷泵飞电容负端，接0.47uF电容到电荷泵飞电容正端
5	PVSS	电荷泵负电源输出，接1uF滤波电容到PGND
6	SGND	信号地，与PGND连一起接板极系统地
7	INR+	右声道输入正极
8	INR-	右声道输入负极
9	SVDD2	信号通路电源输入，接1uF滤波电容到PGND
10	OUTR	右声道输出
11	BIAS	内部供电端，接1uF滤波电容到PGND
12	OUTL	左声道输出
13	SVDD	信号通路电源输入，接1uF滤波电容到PGND
14	INL-	左声道输入负极
15	INL+	左声道输入正极
16	/SHDN	SD控制输入，低电平芯片进入关断模式；高电平芯片正常工作
-	EP	裸焊盘，加强散热，可接PGND或者悬空

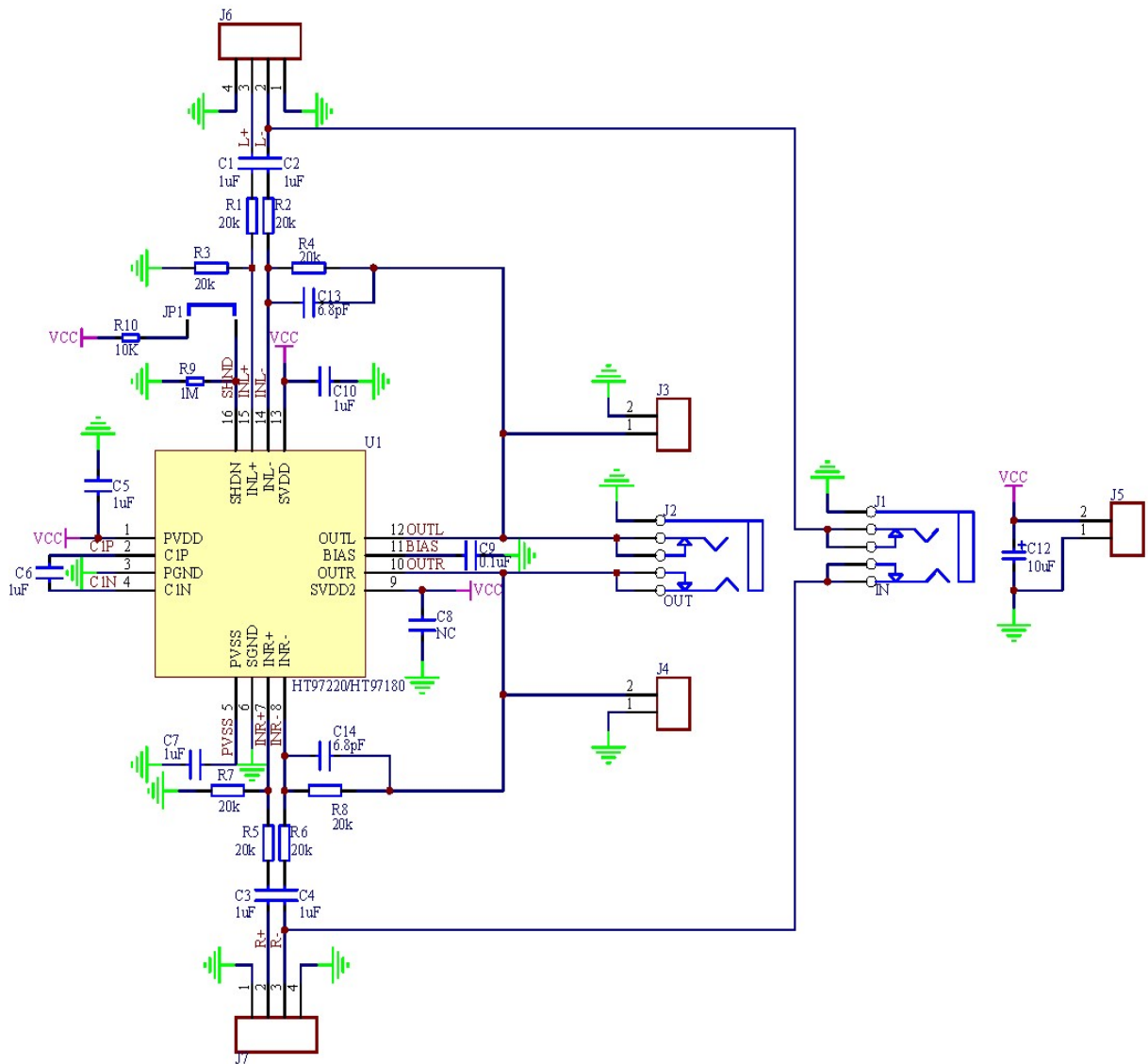


Fig.1 Typical Application of HT97180(L) Demo

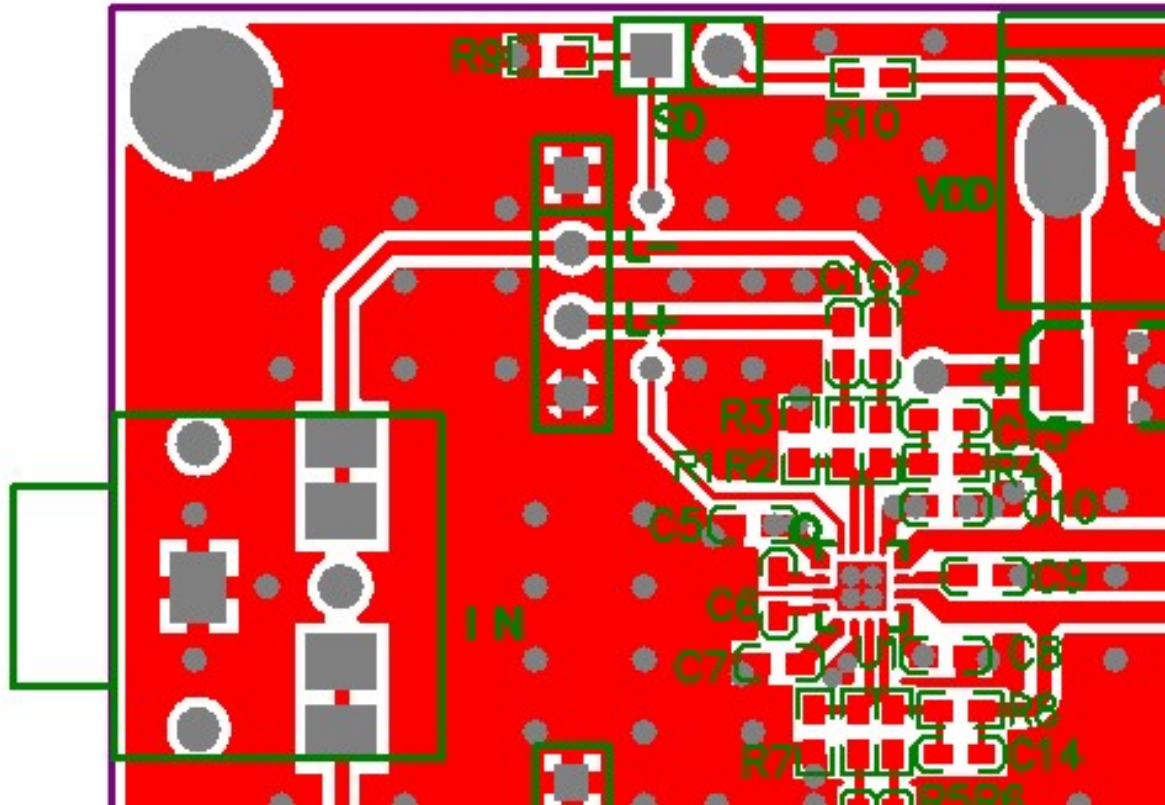


Fig.2 Top View of HT97180(L) Demo Board PCB Layout

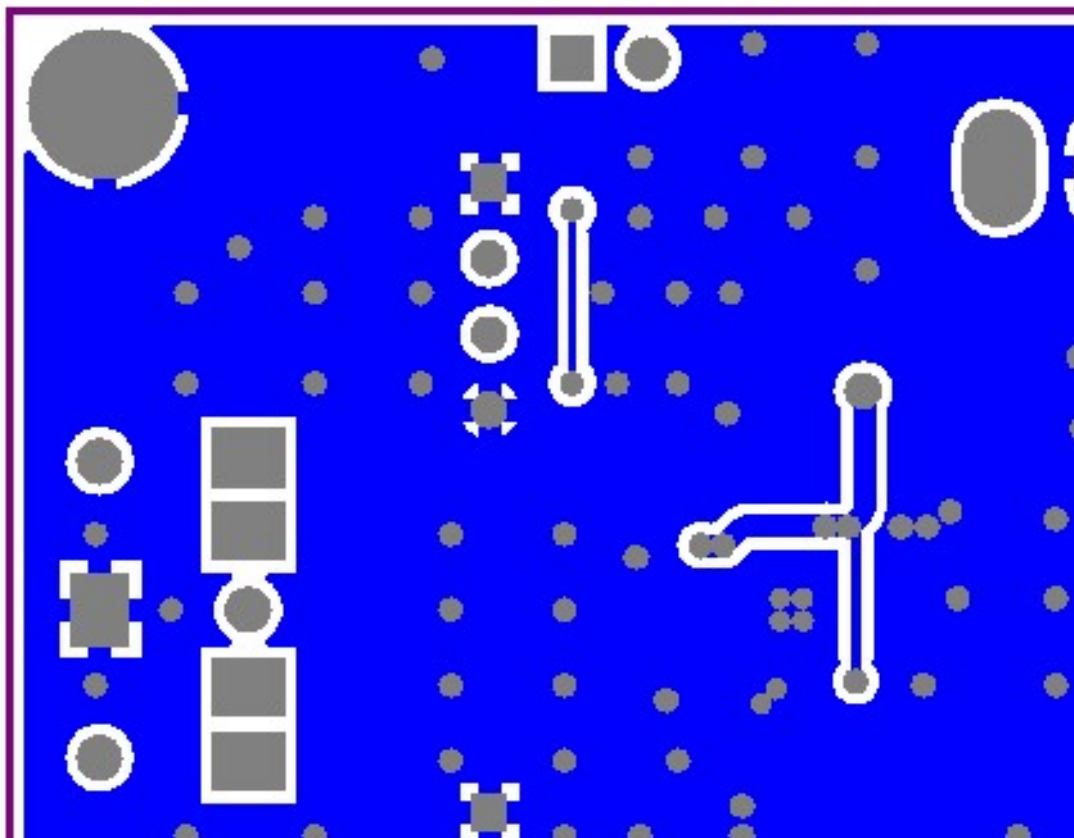
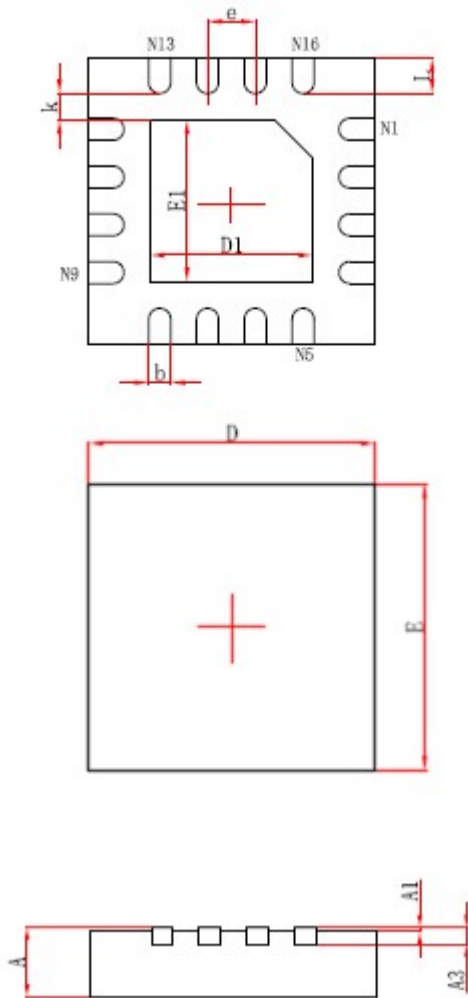


Fig.3 Bottom View of HT97180(L) Demo Board PCB Layout

■ 封装外形



符号	尺寸 (mm)	
	最小	最大
A	0.700	0.900
A1	0.000	0.050
A3	0.203(REF)	
D	2.900	3.100
E	2.900	3.100
D1	1.600	1.800
E1	1.600	1.800
k	0.200MIN	
b	0.180	0.300
e	0.500TYP	
L	0.300	0.500

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嘉兴禾润电子科技有限公司

Jiaxing Heroic Electronic Technology Co., Ltd.

地址：浙江省嘉兴市凌公塘路3339号JRC大厦A座三层

Add: A 3rd floor, JRC Building, No. 3339, LingGongTang Road, Jiaxing, Zhejiang Province

Sales: 0573-82585539, sales@heroic.com.cn

Support: 0573-82586151, support@heroic.com.cn

Fax: 0573-82585078

Website: www.heroic.com.cn; wap.heroic.com.cn

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