
Subject: Tube amplifier for headphones

Posted by [heavil](#) on Tue, 13 Dec 2011 22:35:19 GMT

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Hello! I would like to build an amplifier for headphones. I've found several popular schemes in the Net:

<http://lonewolfblues.com/headphone.html>

http://gilmore2.chem.northwestern.edu/projects/cmoy5_prj.htm

<http://diyaudioprojects.com/Solid/Tube-Mosfet-Hybrid-Headphone-Amp/>

Which of these schemes will you recommend for optimal work with headphones with resistance of 32 ohms?

Subject: Re: Tube amplifier for headphones

Posted by [gofar99](#) on Wed, 14 Dec 2011 19:06:35 GMT

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Hi and welcome to the forum. I looked at the listed designs and tend to like the one by lonewolf as it was good with 32 ohm phones. The hybrid one is fine as well, especially since it will be easier to build. All are transformer-less designs. There seems to be an aversion to using transformers in headphone amps. I suspect that it is because so many builders have used poor quality ones and the sound is just so-so. IMHO if you use a 99cent transformer, you will get 99 cent sound, the same goes for capacitors. They aren't clean either. For fun about 6 months ago I designed and built a headphone amp with transformers. I don't recall if I posted the design or not at that time. The transformers I used are not normally designed for the purpose but worked extremely well. I used some Edcor low power matching transformers. In a push-pull design using a single 6J6 per channel. The results were quite excellent. The output was about 400mw and can drive 32 ohm phones easily. The nominal output impedance of the transformer is 75 and 150 ohms, but when loaded with 32 ohms or more still provides an excellent match for the tubes. Cost was reasonable for the components and layout is uncritical.

Good listening

Bruce

File Attachments

1) [Hear Watt July 25, 2011.png](#), downloaded 7305 times

Subject: Re: Tube amplifier for headphones

Posted by [Shane](#) on Mon, 19 Dec 2011 19:37:38 GMT

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Do you want to build point-to-point wiring or a PCB? I've built several tube headamps over the years. I tend to gravitate towards Alex Cavalli's designs <http://www.cavalliaudio.com/diy.html> and have yet to be disappointed. I helped him prototype a couple of his amps (Stacker II--which never

made it fully due to some stability issues with certain tubes, but was a wonderful sounding amp), and built one of the first point-to-point SOHA's which is still my main headamp. I've also built several of the Millett Hybrid's which are wonderful amps that worked quite well with my 32 ohm cans. Many at the GPAF liked them that listened to it years ago. In fact, I still have one of the original PCB's unpopulated and a populated diamond buffer for it that I will most likely never build <http://diyforums.org/millett.html> . These are great little amps that run on low voltage tubes designed for car audio back in the day and can be tweaked to your hearts content. They sold hundreds of boards and there is more info on building and troubleshooting than you would ever need, which is not the case with many designs.

I have a Millett Max board as well that I'll finish one day

Subject: Re: Tube amplifier for headphones
Posted by [heavil](#) on Mon, 26 Dec 2011 13:12:49 GMT
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Scheme 2 'service - why?
I think that on such a scheme to build more efficient power amplifiers for W 20 and over, and no headphone amplifier

Subject: Re: Tube amplifier for headphones
Posted by [heavil](#) on Mon, 26 Dec 2011 13:16:34 GMT
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<http://www.cavalliaudio.com/diy.html>
On this site there are many schemes. Which is you talking about?

Subject: Re: Tube amplifier for headphones
Posted by [Shane](#) on Mon, 26 Dec 2011 17:35:54 GMT
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heavil wrote on Mon, 26 December 2011 07:16<http://www.cavalliaudio.com/diy.html>
On this site there are many schemes. Which is you talking about?

Any of them will not disappoint, IMO. Look through the descriptions and see if any spark your fancy.

The Bijou has received excellent reviews and sounds fantastic.

If you like using a 12AU7 type tube I would look at the SOHA designs. It's what I built and still use.

The Cavalli-Jones is a step up of the Morgan Jones amp you referenced.

The CTH is a compact version of the SOHA.

If you wanted to get crazy you could look up some of his old designs on Headwize and Head-Fi that he doesn't put on his website (he goes by the forum name "runeight", like this one which I think was the Broskie Cavalli-Jones model:

Personally, if this is your first headamp build, the Millett Hybrid MAX I mentioned above would be an excellent choice (get kits at Beezaer.com) due to the extensive notes. You can get a few of the Cavalli boards at glassjaraudio.com as well.

If you want something you could run speakers with as well look at the Bottlehead SEX kits. Great support and they sound nice.

These are by no means the only ones, just what I personally have had experience with. I'm not into headamps any more, which is why I've got orphan PCB's sitting around never to be used.

File Attachments

1) [BCJ Front.jpg](#), downloaded 7581 times
