
Subject: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Wed, 10 Dec 2003 22:26:30 GMT
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Anyone heard the Seal Electronics DIY amplifier?

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Brad Kizer](#) on Mon, 29 Dec 2003 17:49:08 GMT
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Hi Wayne, Somehow I missed your post. Sorry about that. Anyway, having built Seal Electronics Opti-Mos I can say for my "ears" I am very pleased. Having owned various speakers in the Klipsch line since 87' I have tried many different SS amps in an effort to find one that didn't impart the hardness with horn loaded speakers that SS is known for. Until the Opti-Mos (O/M) I exclusively used McIntosh power amps and preamps. While tubes offered a wonderful midrange and top end I always found them lacking punch in the bass. (I'm not much of a guitar player but I won't have anything except a tube amp here!) Over the years Mac has become ridiculously expensive which eventually led me into DIY. My first DIY amp was one of Hugh Dean's (Aspen Amplifiers) AKSA 55W kits. I was totally amazed at the level of sound quality and value it offered. At the time I had an Adcom GFA-535 in my HT system. That little 55W AKSA flat blew the Adcom away top to bottom. Hmmm I thought, "There must be something to this DIY thing." At that point I was hooked. In the meantime I found it necessary to educate myself in basic electronics so I asked the wife to pick me up a electronics 101 book on her next trip to the library. What she brought home was a basic electricity and electronics text book written by Randy Slone of Seal Electronics. After a number of lengthy phone conversations I purchased one of his O/M kits. The rest is history. To get back to your question, Randy has developed what he calls a soft clip circuit that basically emulates the soft clip of a over driven tube. So I felt this would be a good test for a pair of KSF 10.5's I have in a HT system. This speaker gets real bright rather quickly as the volume is turned up. Simply put I was blown away at what I heard next. Sweet and smooth through the mids and top end. Yep without any doubt the soft clip circuit showed it's worth. What about the bass you ask? Well I'm old school in that if you want realistic bass it takes big power and the 200W O/M has it in spades. Best bass response I have ever heard period. Clean, deep and tight. Again this is only my opinion as "sound" is subjective to the listener. Seal Electronics will introduce a discrete Class-A preamp in the near future. A new amp called the Totem Pole which by the way can be operated in Class-A is available now. Thanks, Brad Kizer

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Mon, 29 Dec 2003 17:56:51 GMT
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Sounds like a pretty cool amp; I'll have to check one out soon.If you build another kit sometime and have a digital camera, maybe you could post some pics of the build-up. Sounds interesting.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Brad Kizer](#) on Mon, 29 Dec 2003 21:24:44 GMT
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I'm waiting on another case. The one shown on my site is way too large and it's quality(not Par-Metal)is below my standards. As an enclosure in a server rack it would be passable but nothing you would want in your living room. And yes it would be my pleasure to post photos from start to finish.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Mon, 29 Dec 2003 22:20:57 GMT
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Sounds good - I'd like to see photos of the amplifier and its build up.Be sure to post on this thread, where I've specifically asked for information about the amp. That will keep the rules for general forums in order.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Brad Kizer](#) on Mon, 29 Dec 2003 23:19:14 GMT
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>Be sure to post on this thread, where I've specifically asked for information about the amp. That will keep the rules for general forums in order.Did I over step the posting rules by mentioning Seal Electronics new product releases? It appears that I might have. If so please edit my post so that I am in line with the "Posting Rules". My humble apologies.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Mon, 29 Dec 2003 23:34:04 GMT
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I don't think you over-stepped the boundaries, but if so, the moderator will pull the post. I was just

mentioning the rules so you'd know what they were. I'm pretty interested in this amp, and I think others may be as well. That's why I asked about it. I hope some of the High Efficiency folks will see this, as it appears to be a viable alternative to higher-powered push-pull valve amps. Lots of horn enthusiasts like push-pull tube amps for subwoofers and other applications that need some oomph. We're all having a blast here, if you ask me! Thanks for posting!

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Pat](#) on Sat, 10 Apr 2004 08:24:53 GMT
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I just built Seal electronics ZUS amplifiers and have some pictures of the build up if any is interested.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Sat, 10 Apr 2004 08:27:55 GMT
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Oh, yeah! Please post photos and a write-up here when you get time.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Pat](#) on Sun, 11 Apr 2004 04:18:19 GMT
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my self, I am an automotive technician by trade, and just started with electronics as a hobby. I have only built one PCB project and got hooked (IR 12 relay control board I use for my theater lighting). It was time for me to look for another project to build, when my brother in-law said why

and started my research on the web. When I realized that it was possible to build my own audio amplifier, I furthered my research and found many different amplifier kits, from very simple ones, to more complicated ones. By this time I had my goals set, not just to build any ordinary audio amplifier, but to build ultimate amplifier, something I can use for my home theater system, that is better than I already have! In my year long research, I heard a lot of good things about Randy Slone and his OPTI-MOS amplifiers. I purchased one of his books (High Power Audio Construction manual) and decided to build one of his amplifiers, even though it looked more complicated. People were comparing it to some major high end power amplifiers, and I had to hear it for my self. I finally ordered my two OTI-MOS amplifier modules and his auxiliary control board. When I received the parts I was blown away the quality of the parts, BIG heat sinks

construction began. I started with the auxiliary control board, which was a little hard at first

bad. I completed and tested the auxiliary control board with no problems, and was ready to start on the amplifier modules. I found that the best way to start is to do your inventory and separate all the components into groups at the same time, this saves a lot of time. Assembling the amplifier modules were time consuming but pretty straight forward, I had no problems at all. By this time I had to start thinking about the power supply, and the enclosure, I had a five disk CD player that never worked well from brand new, so I gutted it out and modified the face plate and using it as the case for now, because my plan is to build a 4 or 5 channel amplifier. These amplifier modules

working with metal. Now it came down to the power supply, by this time Randy Slone had come out with his new low impedance power supply board that I seen on the ZUS audio web site, when I saw that board I had to have it, because it was a nice clean set up. So I finally got my power supply (800VA 50+50 transformer) and low impedance board with 80,000uf of capacitor reserve,

had to do was to set the bias which consisted of measuring DC voltage between to clearly marked points on the PCB, and it was ready to rock!!!!!! When I heard it for the first time it blow me away! This has to be the best sounding amp I ever heard!! It has excellent bass control and a wicked top end I am very pleased!!! I will post pictures as soon as I can figure it out! I am a newbie at this

Subject: Re: ZUS and Seal Electronics DIY amplifier

Posted by [Pat](#) on Sun, 11 Apr 2004 05:09:22 GMT

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My mistake the date on the amplifier boards are Sep 3/03. Can I post pictures on this post? Without URL? My web site is under construction. And if so how do I do it? I tried but with no success!

Subject: Re: ZUS and Seal Electronics DIY amplifier

Posted by [Wayne Parham](#) on Tue, 20 Apr 2004 12:51:23 GMT

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Yeah, you'll need a website to store your pictures, then you can include them in posts. There are some free image hosting sites if you don't have any free space from your ISP.

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Pat](#) on Tue, 20 Apr 2004 21:40:06 GMT
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I have a few pictures posted on diy audio forum. My user name is opti-mos Pat, check them out. This picture is when it was almost finished.

<http://www.diyaudio.com/forums/showthread.php?s=282d8613b6c30279e6f5edcade6149de&threadid=23706&perpage=15&pagenumber=5>

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Wayne Parham](#) on Fri, 23 Apr 2004 05:55:27 GMT
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That's one fine lookin' amplifier!How does it sound? What speakers are you using with it? What do you use for source material? Still using the Kenwood five-disk changer?

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Pat](#) on Sat, 22 May 2004 14:22:01 GMT
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bass all driven by that one two channel amp until I make it into a four channel. I also have a set of

Subject: Re: ZUS and Seal Electronics DIY amplifier
Posted by [Brad Kizer](#) on Sun, 04 Jul 2004 20:41:11 GMT
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Here are a few more O/M pic's. I also have two more Seal projects under way. Another O/M in a different style enclosure and a HQEF 100W BJT design. Please excuse my web site. I'm in the process of making updates.Nice job Opti-Mos Pat!

Subject: Re: ZUS and Seal Electronics DIY amplifier

Posted by [Pat](#) on Wed, 21 Jul 2004 01:20:19 GMT

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Hi Brad, That's nice work! I like that enclosure, I need something like that because I am going to make it into a four channel amplifier. Where did you get that enclosure? Or did you build it yourself. I also like your heat sinks....

Subject: Re: ZUS and Seal Electronics DIY amplifier

Posted by [Brad Kizer](#) on Wed, 21 Jul 2004 22:56:06 GMT

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Hi Pat, The enclosure is a 4U rack mount. I put this one together for my heat sink supplier. You can email him here: barrredboss@yahoo.com He wanted to display his product so after some conversation with Randy Slone we fixed him up. The cutouts were made with a sabre saw. I will post more photos of a second type of enclosure we are working on sometime this weekend. This one is much more compact and as an added plus it's relatively nice to look at according to my wife.:-) The HQEF will be in a standard R/M case with a different face plate. It will look very similar to Randy's "Sweet Amp" internally. I'm really excited to get this project under way. I need to get with Wayne at Pi Speakers for one of his kits. I don't know what you have for speakers but IMO the O/M kicks butt with horns. Brad "Still Rockin' in the Free World"
