Subject: Omega18 vs Selenium18 sub
Posted by Chris R on Sat, 20 Sep 2003 22:56:00 GMT
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Hi Wayne, For fun, I compared the Omega18 against the Selenium 18SW1P18" subwoofer. Both PiAlign and BoxPlot give a ~3.3 cu. ft. boxfor the Omega, which seems pretty small for an 18"er. TheSelenium has similar specs except for Qms. The difference isbetween 5.53 for the Omega and 10.93 for the Selenuim. Vas is12.5 vs. 13.3. The freq. plot for the two show the Omega -3dBaround 58Hz, and the Selenium around 36. Does the differencein the specs make that much difference? Aside from the obviousanswer, why?BTW, the BoxPlot box for the Selenium is 7.75cu ft. With a similarsized box for the Omega, you get a sort-of ESB alignment, with asimilar -3dB point. Any thoughts? Anyone tried this Selenium?Thx, Chris

Subject: Re: Omega18 vs Selenium18 sub
Posted by Wayne Parham on Sun, 21 Sep 2003 13:33:01 GMT
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The Omega 18 is really tuned as a high-power midbass and not so much as a subwoofer. You can put it in a cabinet giving it an EBS alignment, and it will work below 40Hz. But the Omega 18 is really best suited for 40Hz up in high-power applications.While not being familiar with the Selenium 18SW1P, its specs indicate that it is tuned to be used lower. It will generate more output in the bottom octave at the expense of performance higher up. These kinds of optimizations are functions of the specifications of the woofer, which were designed to meet a specific goal.The Omega 18 is more like the JBL 2241, while the Selenium 18SW1P might be more like the JBL 2245. Which is better for you really depends on what you plan to use them for.

Subject: Re: Omega18 vs Selenium18 sub
Posted by Chris R on Sun, 21 Sep 2003 16:07:07 GMT
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Hi Wayne, I guess my question is about how to select a driver by reading itsspecs. In this case, both have an Fs of 29Hz. The only remarkabledifferences are the one point is Vas, and the significant differencein Qms. Is it reasonable to think you can predict a speakers freq.performance based on reading specs alone, or does this capabilitycome from running the numbers on a variety of drivers to get afeel for how each of the specs effect the result? In other words,plain old experience. I there a table that describes how eachof the specs inter-relate? Something like, "Vas and box size areproportional. Qms is proportional to low end performance, but theoptimum value is around blah with a Vas around blah."Thx, Chris

Subject: Re: Omega18 vs Selenium18 sub
Posted by Wayne Parham on Sun, 21 Sep 2003 18:16:37 GMT
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There is a reliable correlation of the response characteristics of a speaker and it's electro-mechanical parameters. You can expect the formula to guide you in this regard. The best thing to do is model a system based on speaker parameters to see what you can expect. So I'd always recommend that you model the system when considering a part or comparing it with another. These days, modeling is not very difficult at all.Another thing to consider is that the response curve can be modeled pretty well, but there are important properties that don't show up in this sort of model. Cone flex introduces behaviors that aren't considered in T/S models, but they are usually not an issue below a few hundred Hertz. Distortion performance is an important property that isn't described in the T/S electro-mechanical model either. It's largely the result of electro-magnetic properties, so you would need to model the motor system to determine LF distortion. My point is that there are some properties that determine quality to a great degree, but that aren't described in the electro-mechanical terms usually used to calculate cabinet dimensions. T/S models are pretty accurate at predicting bass response though.

Subject: Re: Omega18 vs Selenium18 sub
Posted by Chris R on Mon, 22 Sep 2003 00:28:43 GMT
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Hi Wayne,Thanks for the comments...>to guide you in this regard. The best thing to do is model a system >based on speaker parameters to see what you can expect. So I'd always >recommend that you model the system when considering a part or >comparing it with another. These days, modeling is not very difficult >at all.Maybe that's my problem. I'm accustomed to having all the data available and being able to run command line tools in batch mode. If I could have that database of data, I could write the tools, then grep for the result I'm looking for. Now that's what I call a speaker selector! This whole enter the data, interactive GUI thing just isn't my bag. Way too slow.>the motor system to determine LF distortion. My point is that there >are some properties that determine quality to a great degree, but >that aren't described in the electro-mechanical terms usually used to >calculate cabinet dimensions.OK. Its becoming more clear now, although depressingly so. It seems the best defense against lower quality motors is cash. Oh well...Thx, Chris

Subject: GUIs
Posted by toxicport.e on Mon, 22 Sep 2003 10:31:20 GMT
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This whole enter the data, interactive GUIthing just isn't my bag. Way too slowlol yeah everything is yummy graphics thesedays,atleast winisd has functions that work..just look at the games of today-all graphics,no storyDOS u say? command line :o whats that ! hahhacd/gamesmy first DOS command when i was about 6,on an orange screen ,california games,xenon2,sopwith,etc etc.and the never ending game zeliard we couldnt finish,i wonder if i could get all of those agian,ive found xenon2 and sopwith2 hahyep theres no replacement for displacement (and quality woofers):-Did model in winisd pro,its fast.then to be sure,use a spreadsheet like Adrian macks,he has everything winisd does,and ofcourse you can Know whats going on because the equations are right there..cheersMike

home

Subject: grep
Posted by Wayne Parham on Mon, 22 Sep 2003 11:09:10 GMT
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Aaah, grep. I like grep and Perl, but I can't stand awk. Funny how UNIX commands all sound like you're clearing your throat or something.

Subject: Re: grep
Posted by Chris R on Mon, 22 Sep 2003 12:16:32 GMT
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I use grep as a concept for conversation, not so often literally.perl is my hammer for almost all my computing nails. Unix/linuxare my bread and butter. You just can't do that stuff in Windows.

Subject: Re: grep
Posted by Wayne Parham on Mon, 22 Sep 2003 15:15:54 GMT
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Have you ever used the grep utility under MS-DOS or the command line in Windows? I've got a copy because its regular expression parser sure is handy. It works pretty well, even on MS-DOS.

Subject: Re: grep
Posted by Chris R on Mon, 22 Sep 2003 20:01:51 GMT
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RE: grep in DOS...No. My PC is dual-boot, so if I have texty data and/or perl problemsto solve, I boot linux. In Windows, I just run the GUI tools andlive with whatever that provides. I know folks that use MKSToolsor something like that. You get all the unix shell commands including grep. You can get perl for Windows also. To me, Windowsis unstable enough as is, so I add as little as possible to it anduse linux when I want that environment.Thx, Chris

Subject: Re: grep
Posted by Wayne Parham on Mon, 22 Sep 2003 20:53:50 GMT
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Yes, you're right for sure. I've been running various flavors of Windows, OS/2 and UNIX for quite a while. For the Windows boxes, I've got Perl and grep, but I don't run any scripted stuff on Windows. But sometimes I'll grep for a particular pattern on a PC directory or tree, because grep works well for that. Just don't wanna have to reboot just for a regular expression search, so I'll use the PC-executable version of grep instead.