Subject: Modeling the mid woofers for Xover
Posted by Danse on Wed, 28 Sep 2005 22:10:09 GMT
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Hi,Thinking of builbing a "needle type" array.Can anyone tell me how to calculate the parameters of 14 mid bass drivers tapered 3-3-4-4.I can't find any software that will model this.Thanks

Subject: Re: Modeling the mid woofers for Xover
Posted by Eric J on Tue, 04 Oct 2005 18:13:51 GMT
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WinISD will do the modeling without the taper. Do that. Once you do the taper thats for blooming. I think, but you need to ask Doc Griffin for sure.eric j

Subject: Re: Modeling the mid woofers for Xover
Posted by Jim Griffin on Wed, 05 Oct 2005 02:07:11 GMT
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Danse,For box calculations I model a single driver and then multiple the individual single box by the number of drivers in the array. For instance for a 10 mid woofers box you would need to multiple by 10 to get the size of the large box. Now that would be easy for a sealed box but what I do is to segment the large enclosure so that only a few drivers are in each smaller box. The individual segments effectively add bracing which is usually a good thing. For a vented box just compute the venting for the segmented box. For my Needles I used 4 segmented boxes which enclosed 4 drivers each. Some software like BassBox Pro will compute multiple paralleled drivers in a box but that wouldn't cover all cases for arrays. You can use techniques in my white paper to compute the overall SPL and impedance when you series/parallel the drivers. Jim

Subject: Re: Modeling the mid woofers for Xover
Posted by Danse on Wed, 05 Oct 2005 23:06:40 GMT
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Thanks Jim and Eric,The box modeled well enough in BassBox Pro.I'm using Hi-Vi 14 B3S Mid bass and one Fountek Neo 3 Ribbon.I also Modeled 4 drivers in series and 3 drivers in series and worked out the average parameters of the two. Then set the average parameters up as one driver. Used the average parameters and set it up as 4 drivers in parallel. Model a simple Xover in Xover Pro to get started.Question: is baffel step the same as regular speakers?Once I have

finished the boxes and simple Xover I will will take measurements with Just MLS and see how I could finalize in LSPCad.