Subject: When tapering not needed
Posted by Eric J on Tue, 16 Aug 2005 20:50:35 GMT
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My design array has the midranges going to the ceiling. They need to be tapered. But the tweters are only 20 inches long, and the woofers only 30 inches long. Do they need to be tapered. I don't see bloom as an issue with either of those arrays.

Subject: Re: When tapering not needed
Posted by Jim Griffin on Tue, 16 Aug 2005 23:40:09 GMT
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Eric,For what it is worth I would never suggest tapering a line of tweeters as very little of their energy will bounce off of the floor or ceiling. Slightly tapering mid-woofers works for me to blend with most room surfaces. A subwoofer or woofer line likely would not need tapering as their sound is omnidirectional anyway. Jim

Subject: Thanks
Posted by eric j. Uberseder on Tue, 16 Aug 2005 23:42:38 GMT
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Thanks

Subject: Re: When tapering not needed
Posted by Bill Wassilak on Thu, 25 Aug 2005 14:44:26 GMT
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What if you get sound bloom from the tweeter array, my tweeter array is about 30" long with 24 of those 3/8" onkyo tweeters and I had to slightly taper the array to stop the bloom just running the tweeters by themselves. Now that I have them integrated with those 5" NSB pioneers should I go back and try it with out the tapering on the tweeters?Bill W.

Subject: Re: When tapering not needed
Posted by Jim Griffin on Fri, 26 Aug 2005 11:42:35 GMT

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Bill,It is hard for anyone to say without hearing your line array whether tapering helps or hurts your sound quality. Normally, my experience is to recommend tapering for mid-woofers because of interaction with the room. As you have a realively short tweeter line, you could still have room interactions at the low end of the tweeter's frequency range. Bottom line is that if the sound is better with tapering, then clearly that would be the better solution.Jim

Subject: 12 twt's with 48 inch length need tapering or not?
Posted by skaloumbakas on Fri, 26 Aug 2005 18:28:11 GMT
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Hi,From what I know, Genesis for example in their top speakers (G350 & G201, which incorporate 12 tweeters) do not use tapering for their tweeters. They use the 3/3/3/3 wiring configuration.Question A. I suppose they are correct (or not?) As you say Jim - and I have read your white paper with great interest - tweeters do not need that much tapering as woofers and mids... is it correct?_____I am using the G300, which uses 2 tweeters and one super tweeter per speaker. (also one at the back)Question B. Would you recommend to take the plunge and go for the 12 tweeters (and 3 at the back), drilling the extra holes and ordering their ribbon tweeters and the x/oor...it is risky and not worth the cost and work?Christos
My system

Subject: Re: 12 twt's with 48 inch length need tapering or not?
Posted by Wayne Parham on Sat, 27 Aug 2005 06:23:42 GMT
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Your home and setup is absolutely beautiful!

Subject: thanks
Posted by skaloumbakas on Sun, 28 Aug 2005 04:44:34 GMT
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Thanks Wayne for your flattering comments!As you see, I am still searching... I haven't changed gear for the past 4 years.I have done only updates and improvements of the already existing...What about my question though, on tapering the tweeters? Is it really needed?

Subject: Re: thanks
Posted by Wayne Parham on Sun, 28 Aug 2005 07:06:39 GMT
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I haven't researched arrays, so I'd defer to Jim Griffin on this one. My specialty is horns.

Subject: Re: 12 twt's with 48 inch length need tapering or not?
Posted by Jim Griffin on Mon, 29 Aug 2005 02:11:56 GMT
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Christos,You have an impressive system and I'm sure that you enjoy listening to it. You are on target that I do not recommend tapering a tweeter line as you will have few benefits. Tapering a line of woofers would permit you to adjust for room effects (or what I call sound bloom). Tweeters shouldn't need to be tapered as they are likely operating well into the near field region so floor and ceiling reflections aren't an issue.On the increase of the number of tweeters in your current system: I'm not sure that I have enough knowledge about the details of your current system to make a knowledgeable comment. I will comment that if your current crossover frequency between the small tweeters and the long planar driver occurs at a relatively high frequency (for example, in the 15,000 Hz area), then you may not yield significant improvement in overall sound quality by going to 12 tweeters. My thinking is that there isn't much program material in this upper half octave (between 15,000 to 20,000 Hz) so you may not hear enough of a difference to warrant the change. Jim

Subject: Jim, tweeters are working...
Posted by skaloumbakas on Tue, 30 Aug 2005 06:21:54 GMT
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Thanks Jim,I think the crossover point for the tweeters line array is at 7000 Hz, but they start working at around 4500 Hz, due to the crossover slope (I think - I am not an expert in electronics).So, is it worth it?Christos