Subject: Considering first line array build
Posted by Captainobvious on Wed, 20 Jan 2010 19:49:43 GMT
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First post. Thanks for taking the time to read and respond

Im considering building my first line array and I wanted to ask a few questions.

I would be building a 2 way system with mid and tweeter arrays. Im a big fan of the Tang Band W3-1364SA bamboo coned drivers, but they have an awefully limiting xmax at 0.5mm which makes them less desireable for this project. That said, the midrange driver I have been considering is the Dayton ND90. What would be the max center to center driver spacing while steering clear of comb filtering effects ?
Im trying to come to a happy medium where I can use fewer drivers to save money, while still achieving a good nearfield listening experience. My cieling height is 9' so at the 70% mark for boundary coupling, I would need a woofer array length of 75.6 inches (6.3 feet). If the absolute minimum driver spacing was used (3.5" OD), that would require 22 drivers per side.

I prefer to keep the midrange LP crossed around 4K as I like to keep the vocal range away from the crossover point. Is this realistic, or would I have to go with a lower crossover point?
Can fewer drivers be utilized to still accomplish the same goal?

Thanks for your responses.

Subject: Re: Considering first line array build
Posted by selahaudio on Thu, 21 Jan 2010 20:32:26 GMT
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4K is too high for the crossover point. The best way to approach this is keep the spacing as close as possible and then run some measurements. If you use 20 or 24 drivers you can also drive the whole line without any tapering.

Subject: Re: Considering first line array build
Posted by Captainobvious on Fri, 22 Jan 2010 15:10:14 GMT
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Thanks for your response. Is 4K too high because of diminishing off axis response, or because of comb filtering?

Subject: Re: Considering first line array build
Posted by selahaudio on Fri, 22 Jan 2010 15:42:11 GMT
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Captainobvious wrote on Fri, 22 January 2010 09:10Thanks for your response. Is 4K too high because of diminishing off axis response, or because of comb filtering?

It's a combination of both. What tweeter do you plan to use?