Subject: Line ARRAY
Posted by Clyde on Tue, 01 Jan 2008 23:48:19 GMT
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Hello all, First post. I have been watching the board for about a year. I have a few drivers that I bought about 2 or 3 years ago sitting in my closet that I would like to do something with. I would like to build a line array or point source using the drivers that I have. Here is a list of items that I have collected and just sat. 36 JBL, Vifa (299-495) from Parts Express, 5 PT-2 plannar Tweeters from Parts Express, 5 2way X-overs (260-174), 6 Radio Shack 8" subwoofers, 2 AR MONO 100 WT amps with a pass for mids and highs.I have very little money to spend so I need to try to use the parts on hand (New House). My listening room is 16' X 20' open into dinning and kitchen. I also have an Oknyo TS-DS939 for power.I have read jim's white paper and still have a had time understanding it. Any help would be awsome. Thanks All.

Subject: I wish I could help....
Posted by Marlboro on Thu, 03 Jan 2008 03:00:58 GMT
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You have a lot of parts. I'm not sure how they will all fit together.When I built my system I studied lots of stuff for almost 18 months. I went over Griffin's paper until I knew it like the back of my hand. I carefully matched all the parts together so that the electronic crossovers would work and then I adjusted the crossovers. What you have maybe might work, but you can't use an off the shelf passive crossover.Making line arrays is HARD, everything has fit together just right. I don't think you have enough stuff, but without all the spec's for everything, we can't really help.I had specifications for every possible thing. Without that, my opinion is that you would do better with one of the plans that other people have made. Maybe someone else has a simple solution for you.Marlboro

Subject: Re: I wish I could help....
Posted by Clyde on Thu, 03 Jan 2008 11:01:13 GMT
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Thanks for the info, I do not have to use the x-overs and the specs are up at parts express's web site. I was going to use 10 of the vifa (299-495) and 6 or 8 PT2 planars. Mybe I will invest in a active x-over set up.

Subject: Re: I wish I could help....

Posted by Marlboro on Thu, 03 Jan 2008 16:53:01 GMT
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Remember that to have a line array you have to have it coupled with the ceiling and floor.This means that you need to have the array big enough to have the mid ranges at least be a length that is 70% as long as the height of your room. Otherwise you have a line source but not a line array. You won't be in the near field for listening, and you will have all kinds of problems with the sound of the system.Crossover will be critical to determine the maximum center to center distances for the midranges, and thus the amount that you have to use.You can get an analog Rane Ac-23 two channel three way crossover on ebay for about $115 - if you wait and work for a good offer. Marlboro

Subject: Re: I wish I could help....
Posted by Clyde on Fri, 04 Jan 2008 00:58:13 GMT
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Thanks for the info. I will start working on the cabnets this weekend.Thanks

Subject: Re: I wish I could help....
Posted by JPH on Fri, 04 Jan 2008 09:23:16 GMT
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MarlboroConcerning the height of an array in proportion to the ceiling , My RS8 are 180 cm high and my ceiling is 340 cm heigh approx 53 % : far from the 70% you are talking about ! what would be the kind of problems with such a situation ?and what are the solutions ? If I shoudl build a new array it will have to be 250 cm high !

Subject: Please Read Dr. Griffin's paper
Posted by Marlboro on Fri, 04 Jan 2008 11:31:32 GMT
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JPH,You are welcome to build anything you want, or to purchase anything you want.The Griffin Paper clearly states that a line array requires a coupling of 70% of the height in order to be viable as a line array. Rick Craig can do anything he wants. Perhaps your room is higher than the standard seven foot American home. In that case your listening may not be in the near field. I'm only commenting on the research paper that I used to design my speaker systems. I refer you to Dr. Griffin's line array paper, the bible of what all we do in line arrays since 2003.Marlboro

Subject: Re: I wish I could help....
Posted by Rick Craig on Fri, 04 Jan 2008 16:43:00 GMT
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You can easily take your Behringer mic and measure the output of each line at different distances to observe the nearfield vs. far field behavior.

Subject: Re: Please Read Dr. Griffin's paper
Posted by Jim Griffin on Sun, 06 Jan 2008 03:09:58 GMT
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Marlboro,The 70% factor is a suggestion for 'boost' from floor and celing reflections in the mid-bass area. If you have a vaulted ceiling, for example, you don't benefit from reflections from the ceiling but you still get floor reflections.Certainly, you can measure the performance of the array to ascertain near and far field boundaries.Jim