
Subject: Interesting Article

Posted by [FredT](#) on Thu, 24 Aug 2006 09:53:38 GMT

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Roger Rusell's line array experience. I'm giving away my age when I admit I read the 1961 Popular Electronics article on the Sweet Sixteen and one of my nurdly friends and I built one. It sounded pretty good to us at the time. Of course nobody was concerned about beaming or comb filtering - life was simlper back then.

Line Array History

Subject: Actually a Great Interesting Article

Posted by [EJM](#) on Thu, 24 Aug 2006 11:00:44 GMT

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Great Article! I always wondered. And I also wonder what Jim G. will have to say about it!EJ

Subject: What Would Jim Say?

Posted by [FredT](#) on Thu, 24 Aug 2006 11:50:36 GMT

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Sounds like a great idea for a bumper sticker, or for spray painted graffiti covering the walls of any company that sells line arrays with rows of dome tweeters.

Subject: Re: What Would Jim Say?

Posted by [Pinky](#) on Thu, 24 Aug 2006 12:20:01 GMT

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In the pictures, it doesn't look like his dome tweeters are close enough together to prevent audible comb filtering. In my own array, I've taken the little Dayton Neo's and cut the flange off so tightly that the center to center distance is about .80. This raises the calculated comb level to almost or more than 18,000 hz. This is at a range where, a. I cannot hear adequately anymore due to my age, and b. most people will not be able to differentiate the comb hiss from normal musical tones, in my opinion, of course. But in any case, isn't comb filtering always more audible in the midrange levels rather than at tweeter levels above 12,000 hz?Pinky

Subject: Re: Interesting Article
Posted by [Jim Griffin](#) on Thu, 24 Aug 2006 13:45:46 GMT
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Fred, Thanks for the new Roger Russell URL. The history paper is an excellent review of his work at McIntosh and now in the Mac afterlife. Roger does an excellent writing job. I also find that the new IDS full range driver line array by R. Russell design is essentially what he writes about in his June 2006 Audioxpress article. On the other hand look at the cost of the IDS (more than \$16K). Your Selah Audio arrays (and your cabinet work) are a bargain by comparison. Jim

Subject: Re: What Would Jim Say?
Posted by [Bill Fitzmaurice](#) on Thu, 24 Aug 2006 16:41:17 GMT
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Harder to hear yes, just because it's harder to hear that high anyway. But also keep in mind that when spacing is too large for perfect wave integration at the radiating plane the waves will integrate at some point further out. That can be very problematic in the midrange, but if you're dealing with wavelengths that are only a few inches long or less then even a ten wavelength lobing depth isn't going to be audible at normal listening distances. As long as it sounds good theoretical perfection isn't a requirement.

Subject: Re: Interesting Article
Posted by [lcholke](#) on Mon, 28 Aug 2006 02:41:12 GMT
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Hi All, I enjoyed reading Russile's artical. For whats its worth, I made a 4 stack with the Fostex FF85K 3" FULL RANGE driver. They are very fast and are good to about 100hz-150hz. They did sound better with a single cap to reduce the lows. I was trying them out for a 16 high line array project. Comb filtering did not seem to be a problem on the 4 stack. The other driver I tried was the TANG BAND W3-594S (I think the # is correct). The Fostex was much better. I was trying to eliminate the x-over by using a fullrange. After hearing some ribbons tweeters I decided that the fostex was not the way I wanted to go. A 16 stack of those FF85k drivers would be #2 on my speaker list though. I bought the Linus3 array that Rick posted about in July, and am very happy with it.-Linc
