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Subject: Single tweeter line array vs Line array with multiple tweeters

Posted by [goldyrathore](#) on Mon, 23 Nov 2009 07:07:07 GMT

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Hi,

I am in the design phase of building a line array. Its an active 2 way active system (with separate subwoofer crossed at 120hz).

Line height 60". Mid drivers are 2" full rangers and tweeters are Dayton ND20FA.

I have two choches :-

a) A line of 2" mids tightly placed covering floor to 60" with a smaller line of 20 ND20FA centered vertically.

b) A line of 2" mids covering floor to 60". Just one 20 ND20FA centered vertically.

How do the two designs compare given that extended range of the mids easlily allow a crossover as high as 6Khz?

More specifically, I need to know whether there is a good reason to have a line of tweeters above 6 Khz as in a) or can I get away with b) without any noticable difference.

I intend to listen by sitting at one place so the different attenuation rate of tweeter and mid in case of b) does not bother me.

Thanks in advance,

Goldy

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Subject: Re: Single tweeter line array vs Line array with multiple tweeters

Posted by [Marlboro](#) on Mon, 23 Nov 2009 15:50:01 GMT

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What 2 inch mid are you using?

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Subject: Re: Single tweeter line array vs Line array with multiple tweeters

Posted by [justinc](#) on Thu, 31 Dec 2009 22:45:30 GMT

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Having built both I can give you the pros and cons of each.

First I built a few prototype line arrays with jbl buyout drivers and cheap tweeters. Designed my xovers with soundeasy. This was kinda my intro to line arrays... They were great.. huge sound stage but sound quality was kind of lacking.

I couldn't afford high quality drivers with two full lines so I had Rick Craig at selah design me a set which he coined the DayTek. they consisted of the 6" dayton RS and a single fountek jp2. I loved these speakers for a long time. When I was seated on the couch watching movies or listening to music they were phenomenal. When I stood up or had parties and was walking around it was clear that the single tweeter just dropped like a rock. The high end just fell off the face of the earth and it started to but me.

So then after having those for a few years I decided to spend some money and built a set of semi focused full line arrays with focal 6.5" and dayton pt2C. I use a behringer dcx2496 and 2 crown xti2000s to power them. I use soundeasy and true rta for my measurements. this is my current system and I love it. solves all the problems with the single tweeter.

Now however I am intrigued by a full range array and so have just built the cabinets to house 24 dayton rs nd90's and will be playing with those. I am going to see if I can just use the dsp in the crown xti's since it has high and low shelving for low and high boost, plus it has parametric eq. If I need to i will buy a deq2496 or alternative if I can find a better option, but I would like to try and keep it simpler.

Long story short. If you are going to be sitting ALL the time go with the single tweeter and you will be content. If you will be using them at any point where you will be standing or walking around have a line of tweeters covering minimum of sitting to standing dimensions if you cant afford to do a full line.

### File Attachments

- 1) [PICT0242.JPG](#), downloaded 5939 times
  - 2) [dsce 005small.JPG](#), downloaded 5599 times
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