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Subject: Re: horizontal line array for center.

Posted by [Jim Griffin](#) on Wed, 23 Mar 2005 19:51:58 GMT

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Justin, This idea has potential and you realize that you'll only have good sound within the length (or width in this case) of the array. I would not angle the sections as you wish to have a near field in the horizontal plane so the radiated energy will flow directly outward from the long array. The array's vertical radiation will be essentially that of an individual woofer so it will cover both seated and standing. The single tweeter is a little problematic as you realize. You would want to orient the JP3 so that the ribbon is vertical (just as in a normal standing MT or MTM style speaker) because you want to have its best coverage within the room in the horizontal plane. You'll lose a some vertical radiation coverage if a listener stands but I'm assuming that the listeners would be seated and roughly the same distance from the sources. The other issue to note is that the line array will have a radiation decay of 3 dB per doubling of distance from the source (near field condition) versus 6 dB per doubling of distance for the tweeter (far field condition). You will have to watch the sensitivity levels of the array (remember array gain increases the overall sensitivity of the woofers) versus the ribbon tweeter so that you can balance out the sound across frequency. I normally like to have my tweeter (or tweeters) a little more sensitive than the woofers. Thus, it is easy to pad the tweeter level down versus reducing the level of the woofers which may mess up the bass enclosure tuning. Good luck, Jim

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