Subject: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by Abbra Cadaver on Sat, 07 Apr 2007 02:55:40 GMT
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Just curious

Subject: Not much of a response...
Posted by Aaron D on Sun, 08 Apr 2007 01:44:46 GMT
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Probably because it is rare (as you have noticed). Line arrays are very rarely a small (physically and financially) proposition. Off hand I cannot think of any common drivers that would easily integrate into such design due to the fact that they have to be placed closely together.Furthermore, what would you be trying to accomplish by doing a 3 way? Sure you could use bigger woofers to get more lowend extension but the box would be huge(r). I think most use a sub when wanting to extend the lowend of the response.On the other hand integrating subs into an enclosure (1 or 2 per side below the array) is common and has been done. No real design challenges here, but you do need to hope that the ideal placement for the subs is the same as it is for your mains.Do a search for "Mcintosh array" for more info on a 3 wayish design and look for Rick Craig's opinion of it.HTHLater,Aaron

Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by Jim Holtz on Sun, 08 Apr 2007 14:15:46 GMT
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That is something I've certainly considered and it is technically possible. Rick and I have chatted about it. The issues are size an cost. There are several "true" mid range drivers that would lend themselves to this type of design. However, as Rick pointed out in another post, to stay in the nearfield below the 400-500 Hz. crossover to the bass drivers, would require another line of bass drivers rather than one or two stuck at the bottom.The next question would have to be, would the 3-way concept provide enough greater improvement in sound quality to justify the size and price. We probably won't know the answer to that until someone actually creates one. It'll have to have a room that will support such a large speaker (18"-20" wide) and a very understanding spouse/significant other. Jim

Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by justinc on Sun, 08 Apr 2007 14:39:12 GMT

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what about putting either a 10" or 12" at both the top and the bottom of the array, if you keep the xover frequency below 200hz you could have about 65" line in between them, and still remain in the nearfield. You could also keep the cabinet dimensions to around 12-15" wide I've though about giving this a try before. The only problem is you would need relatively high ceilings because your array height would be around 8 feet tall

Subject: Wouldn't it have something to do with your listening pref's
Posted by Marlboro on Mon, 09 Apr 2007 00:03:44 GMT
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And also where you are crossing.My mid woofs cross at 165 and 2600. They are in a room that is 7.5 ft high and 12 x about 18. They cross to just one 12 inch high xmax woofer per side. Currently they are in very small 3 inch boxes but i plan to double that over the next year.Even playing such things as Vic Wooten and Bach organ I really don't have the need for more woofers. If I need more woof, I turn the woofer power amp: UP!Marlboro

Subject: Re: Wouldn't it have something to do with your listening pref's
Posted by Jim Holtz on Mon, 09 Apr 2007 02:25:39 GMT
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Hi Marlboro,I'm certainly no authority on the subject. I'm just passing along tidbits I pick up. You bring up an excellent question though. Just what frequency is the transition point from nearfield to mono in the case of bass. I cross to my subs around 70 Hz. on my Omegarrays. With some of the ultra low distortion 10"-12" subs, they can be crossed over up to 300-400 Hz. without issue. But, what does that do to the nearfield? Maybe Rick or Jim will pop in with a response.Jim

Subject: a question of Balance(no, not the Moody Blues): woofers
Posted by Marlboro on Mon, 09 Apr 2007 02:53:56 GMT
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Aaron,Quite honestly I have to be careful about balance as it is. What seems appropriate for Tocatta & Fugue for Organ in D Minor by Bach with the bass speakers is way too much for Dave Matthews. One works great and the other one muddies the sound. While I can simply turn the volume down on the Power amp that supplies power to the woofers, I find that two 12's are more than adequate. The power on the woofers is never turned up beyond 11:00, except occasionally

for Victor Wooten with Bela Fleck. Booming starts above 12:00.What an array of woofers in my 12 x 18 room would be like I can't nor do I want to imagine. It would lose lots of aspects of the music itself, and make it un-natural. I went from miniature music with point source speakers, to life size music now. i think that would turn it into music on Steroids like Mr. Hyde from the movie LEAGUE OF EXTRAORDINARY GENTLEMEN.MarlboroMarlboro

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Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by Anonymous on Mon, 09 Apr 2007 04:14:10 GMT
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Someday in the future I will start building my 3 way line arrays,I have collected all 40 drivers but have more obstacles to conquer.It's a four tower design using pure midrange drivers, pro planarsand 15" wideband woofers. For HT, I'd need a seperate monster subwoofer.This is a big project that is geared towards very high SPL with very low distortion, perhaps I can rent it out as a torture device ..... we have vays to make you tawk ...

Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by Marlboro on Mon, 09 Apr 2007 12:51:20 GMT
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I suppose you'll also need to build an auditorium to go along with it.I can see it: a large auditorium with plush carpet and one Lazyboy seat in the middle.

Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by Anonymous on Mon, 09 Apr 2007 14:23:46 GMT
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Small room only one Lazyboy. hehe

Subject: Bass common misconception
Posted by Marlboro on Tue, 10 Apr 2007 14:33:36 GMT
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According to Vance Dickason, and verified by me, its a common wrong misconception that since

Bass is omnidirectional below 100 or so that one really only needs one woofer.Clearly one can tell the difference even at low notes between bass with just one sub woofer and with two.I think that the cut-off for being in the nearfield is the point where the size of the frequency actually matches the room size. But I thought I saw a note by Jim that below 600 there is not much point in trying for a woofer line array except for much higher sensitivity.Of course if you cross at 150, then the comb filtering doesn't start until the c-to-c distance of the woofers is 7.5 feet, so one at the top and one at the bottom would work. The nearfield is roughly 3 times the length of the line. So without some modification based on frequency, a line of 2 at the top and the bottom would put most listening rooms in the nearfield for the bass portion.Of course if you cross at 500, then the woofers will need to be about 27 inches apart and you will then need three of them. Crossing at 100 is 135 inches, and is higher than the average room. So perhaps when you get below 150, you only need one woofer to stay in the nearfield.Just a few thoughts.Marlboro

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Subject: Re: Anyone ever do a 3 way with 3 full lines? Results? Comments?
Posted by zobsky on Tue, 10 Apr 2007 15:06:33 GMT
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I think "magnetar" made a 3 way open baffle line array on diyaudio.com

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