Subject: Do Magnepan act as Line array?
Posted by Tom R. on Sun, 29 Oct 2006 00:49:03 GMT
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Do the Magnepan style speakers radiate sound in the same manor as a line array?Or do they act more like a point source speaker?Could a set of Magnegan speakers be used as the tweeter section of a 2 way line array, replacing a series of smaller verticle ribbion tweeters?Tom R.

Subject: Re: Do Magnepan act as Line array?
Posted by Donny Beth on Sun, 29 Oct 2006 12:16:10 GMT
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FYI about these:http://www.hometheaterhifi.com/volume_8_3/magnepan-16-speakers-9-2001.htmlYou be the judge. Seems more like these are a line source, not an array. All the benefits of a line array don't seem to be there, but maybe they are from another way of doing it.Hopefully someone more knowledgeable will respond, like Dr. Griffin.Donny Beth
http://www.hometheaterhifi.com/volume_8_3/magnepan-16-speakers-9-2001.html

Subject: Re: Do Magnepan act as Line array?
Posted by Jim Griffin on Sun, 29 Oct 2006 14:40:37 GMT
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Donny,The Maggies are line sources. Jim

Subject: What's the difference between them then?
Posted by Gene on Sun, 29 Oct 2006 17:58:13 GMT
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OK, Maggies are Line source speakers. Jim espouses Line array speakers for the various reasons that a number of people have posted here.Marlboro explained that, in his view, even a cheap line array will beat out most point source speakers, and that to put even an inexpensive or minimal line array(Russell's, i.e.) in competition with a point source is an uneven match-up.So what if you put a line source speaker like a Maggie in competition with a line array that has midranges, woofer(s), and tweeters. What does this battle look like? What are the benefits of the maggie, and how do they compare to a good line array?Gene

Subject: Re: What's the difference between them then?
Posted by Tom R. on Sun, 29 Oct 2006 23:21:34 GMT
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Please tell, me if this is correct:A line array is a series of individual drivers mounted vertically creating a Radiation patters that helps eliminate wall, floor and ceiling reflections by projecting an large vertical enhanced beam patternA line source is an elongated planer driver with a large radiating surface that radiates in a pattern different that a line array, So due to different radiation pattern of the two designs are not well suited mated together. As in the combination of: a line array with eight vertical 5-1/4” mid bass drivers mated with a set of Maggies crossed at 2500 Hz.?The reason for the question is I am working on a line array with 8 high qualities mid bass drivers per side, which I own. But my funding for the ribbon tweeters section is close to being depletes. I wanted to use the Fountek NEO CD2.0 at $ 120 each. I would have needed 12 of these units, but now I have to lower my budget, and was just looking on E-Bay and saw the Maggies, and thought what if?Tom

Subject: Maggies vs. Line Arrays
Posted by Jim Griffin on Mon, 30 Oct 2006 01:15:27 GMT
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Tom,While Maggies are line sources (think line arrays wherein the array becomes continuous) which mitigate the combing issue normally associated with line arrays. You still have the same line height considerations (near field distances, etc.) as detailed in the white paper. Now some differences between line arrays and Maggies. 1. One such difference is that line arrays will normally be more sensitive. Most Maggies models have sensitivities in the 85 to 86 dB (4 ohms 2.83 volts) range. Hence, Maggies will likely need an amplifier with 200-400 watts output to really sing. Line arrays often will have sensitivities in the mid 90's dB SPL so the amplifier needs are significantly lower. With shorter ribbon tweeters the line array sensivities can be in the upper 90's. You'll find that line arrays will be more dynamic than Maggies because of their higher senitivity and increased dynamic capability. 2. Maggies are dipolar so you have to allow extra space from the front wall in your listening room for the rear wave to disperse. Line arrays can usually realized as monopolar radiators (box enclosed) so you often have more flexibility in room placement, i.e., closer to the front wall. Of course line arrays can also be dipolar with an open back cabinet. 3. Bass capabilities can also differ between line arrays and Maggie. Unless you go with ported cabinets and a fairly large woofer (equal to or greater than 6.5" diameter) don't count on the bass being lower than about 50 Hz with a line array. Typically, Maggies will not go much lower than 40 Hz except for their two top of the line models. Hence, both line arrays and Maggies will need a sub to plumb the lowest bass octave or so. Whether you like the unboxed sound of Maggies or the box sound of line array woofers, is a choice of the listener. I'm sure that others can suggest other differences.Jim

Subject: Re: Maggies vs. Line Arrays
Posted by Tom R. on Mon, 30 Oct 2006 01:32:09 GMT
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Thanks for the response - Most of the difference you have mentioned are not what I am looking for, just trying to keep my project moving with the cash short fall.I guess I will start with a quasi - array for now, Maybe just one NEO CD 2.0 per channel and purchase more as I can afford them, Or look at some cheeper ribbion or planer type tweeters.Tom

Subject: None of the three major Array benefits, it would seem.
Posted by Marlboro on Mon, 30 Oct 2006 15:53:38 GMT
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The three major benefits are as follows:1. Frequency response dips and bumps tend to smooth out. And because there are some many of the speakers, each speaker may have limited output in the upper treble or the lower bass, but all speakers put out something in those areas. If you put enough of them together you can actually get some decent response in the areas even if the individual speakers don't have much to give. NOT HERE: The Maggies are what they are just like a point source speaker. Frequency response is what it is, it doesn't change because of one long speaker in a line.2. All arrays whether with really cheap speakers(49 cent for example) or expensive($49 for example) have decreased distortion. Decreased distortion increases airiness, openness etc. 50 of them will really do that.NOT HERE: Once again, the Maggies have a naturally decreased distortion at some frequencies, but unless you combined ten of the Maggies in a row and you won't get a decrease in distortion levels.3. All arrays have vastly increased dynamic range and increase sensitivity. One of the things that lends to a speaker sounding so much like Russell's are described is the ability of the speaker to play quietly with a flat response, and very low distortion. Almost all point source speakers, except horns, suffer from some disability in regards to being able to play very quietly and still have beautiful music. NOT HERE: Jim mentioned that sensitivity doesn't decrease and is typically about 85, which doesn't bode well for an increased dynamic range.4. Size: One of the benefits of an array is the coupling of the speaker to the ceiling and floor. Maggies are only about 5 feet high. There may be some coupling, but surely not a lot.5. They need a sub woofer, or even a woofer to play deep.6. Sound dispersion. If they function like a planar, then their vertical dispersion characteristics would be more like a straight line in the near field. And the question also begs what the nearfield is likely to be with them, since you can't sit close enough to a point source speaker to be in the nearfield unless you are wearing headphones.NOPE. Anyone who knows more, please correct me whare I am wrong.Marlboro