
Subject: Double ART Array?

Posted by [Brian Owens](#) on Wed, 23 Jan 2008 18:06:11 GMT

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Can anyone tell me what kind of trouble I am going to run into if I build a set of ART Arrays and I double them with two lines of drivers in each cabinet? These will mainly be used for HT and 80's music. I have an older Pioneer Preamp and a Carver TFM-55 (500 x 2 @ 4 ohms) amplifier. These will be paired with a Mach5audio IXL 18" sub, ported in 13 ft^3 tuned to 17 Hz on 1000 watts. Thanks! Brian

Subject: Re: Double ART Array?

Posted by [justinc](#) on Wed, 23 Jan 2008 20:51:25 GMT

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unfortunately lots of problems... If you have the extra money to spend on extra drivers, why not spend it on a different design with a full row of mids and full row of tweeters?

Subject: How about this. . .

Posted by [Brian Owens](#) on Wed, 23 Jan 2008 23:07:44 GMT

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I picked up (2) pairs of these kits for \$520, so I was just trying to do something with them. What if I put all 16 drivers in a row down one side of the baffle, and then put the 2 tweeters on the other side of the baffle. Would that be better?

Subject: Re: How about this. . .

Posted by [justinc](#) on Thu, 24 Jan 2008 00:39:57 GMT

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if you have already bought 2 pairs you're better off just building the other as surrounds. Putting only 2 tweeters will introduce a lot of comb filtering, the ctc spacing on those tweeters really isn't optimal for a full line. plus you would have to design a whole new xover.

Subject: Re: How about this. . .
Posted by [Brian Owens](#) on Thu, 24 Jan 2008 00:47:30 GMT
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I see. I might try it just to see. I will machine the tweeter mounting flanges and get them as close as possible to each other. As far as the crossover, I have all the parts for two sets, so I was just going to put 2 sets of crossovers in each speaker. . . I know it is crazy. Just having fun. My Home theater actually has North Creek Rhythms, and I do not plan on replacing them. . .

Subject: Another idea
Posted by [Brian Owens](#) on Thu, 24 Jan 2008 00:52:24 GMT
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Danny at GR Research suggested I build one set on the front baffle and the other set on the rear baffle. . . Brian

Subject: Re: Double ART Array?
Posted by [Calipso](#) on Thu, 24 Jan 2008 12:03:24 GMT
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Have you read and understood Dr. Griffin's study? You won't have to ask these questions if you do that.

Subject: Re: Double ART Array?
Posted by [FredT](#) on Thu, 24 Jan 2008 12:47:24 GMT
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Brian, the ART Array with its woofer array and a single point source tweeter challenges the limitations of a line array from the start. It was designed to be the cheapest possible line array that actually sounds good to me, and the high sensitivity and 16 ohm impedance are intended primarily for low power SET tube amp lovers. It sounds better with my 3.5 watt SET amps than it does with a high power solid state amp. Not everybody who has heard it liked its sound, but some people whose opinions I respect, including Danny Ritchie, said it sounded good to them. Of course these comments were made with the speakers' cost in mind - it's not in the same league as Danny and Rick Craig's line arrays. Adding a second line of woofers will severely limit the horizontal dispersion, and adding a second tweeter will severely limit the vertical dispersion. You don't want to do this. Building the array as a bipole with drivers on the front and back would be

better, but bipoles are very sensitive to placement and I wouldn't position them closer than three feet from the back wall. I understand your desire to be creative and not just copy what's been done in the past, but just adding drivers will not result in a better sounding speaker. If I had \$600-\$1,000 to spend on a line array I believe I would go for better drivers instead of doubling up on the ones specified for the ART array. You could build a very nice sounding quasi-array using eight or nine Dayton Reference drivers with a Fountek ribbon tweeter. Rick Craig of Selah Audio used to sell this as a kit. He called it the Day Tek, and two or three years ago it sold for about \$800. I suggest you contact him to see if it's still available, but the cost will have increased because of increases in the cost of parts, especially the inductors in the crossover. If you go this route you'll end up with an array featuring top quality drivers with an expertly designed crossover and enclosure plans.
