Subject: MTM horizontal arrays

Posted by gravedigger on Sun, 20 Dec 2009 16:37:08 GMT

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I purchased 72 of the Peerless buyouts that PE has:

http://www.parts-express.com/pe/showdetl.cfm?Partnumber=299-250

I also have almost thirty of the Silver Flute YAG20-1 planars at my disposal.

These speakers will be in a dedicated theater that measures 15w x 24d with seating at 13 feet (back of room is empty; nothing to really do there). Subs are a quad IB of Dayton RS390HFs so the low-end is covered. What I'm looking for is insane SPLs and even as important, the WOW factor when people are over. I love building speakers cheaply that perform very well and I know the drivers I'm using aren't the greatest but for home theater the absolute in SQ doesn't concern me. That's what my 2-channel system is for!

What I'm asking is since I have tons of the Peerless drivers would it be beneficial to do two rows of mids in an MTM much like Selah's Symmetricas? I'm thinking room interaction would be decreased due to the off-axis response cancellations that horizontal MTM's provide. Box size isn't a concern. I would be going sealed at 7 liters per driver with 12 mids per side (24 total) and 10 planars which gives a line length of around 77 inches. The enclosures will give an F6 of 80 hz. according to my T/S extraction. Not as low as I wanted, but I will be using a DCX2496 to EQ and cross the subs and I will use it to boost the lines down a little lower and take care of some room effects.

The seating for the theater is a couch for three people so the sound field doesn't have to cover a wide listening area.

If I do build them as a horizontal MTM what are the pros and cons for my application? Thank you very much.

Subject: Re: MTM horizontal arrays

Posted by justinc on Wed, 23 Dec 2009 02:28:24 GMT

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CTC spacing will be too much horizontally for the Yag tweeters you would need to crossover around 1000hz. Ive used the dayton version PT2 with the dcx2496 and they really cant xover any lower than 1800hz with 24db linkwitz and that is pushing it. For the price If you wanted to do mtm i would send the peerless back and get the dayton nd90 which are cheaper and would work extremely well in that type of configuration. If you want to keep the peerless then just do a single column of each.

Subject: Re: MTM horizontal arrays

Posted by selahaudio on Thu, 24 Dec 2009 02:24:15 GMT

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justinc wrote on Tue, 22 December 2009 20:28CTC spacing will be too much horizontally for the Yag tweeters you would need to crossover around 1000hz. Ive used the dayton version PT2 with the dcx2496 and they really cant xover any lower than 1800hz with 24db linkwitz and that is pushing it. For the price If you wanted to do mtm i would send the peerless back and get the dayton nd90 which are cheaper and would work extremely well in that type of configuration. If you want to keep the peerless then just do a single column of each.

I agress, single line of the Peerless woofers or dual lines of a smaller woofer.