Subject: Porting of Line Array
Posted by MikeT on Mon, 05 Dec 2005 20:56:00 GMT
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I am in the process of building a set of Axon 8-12's which calls for a port 4.5" high, 13" wide and 5.5" in length coming out the front of the enclosure. I am considering making a round port/s out the back of the enclosure due to concerns about port noise. Is this a wise move or should I just build them as planned. I would love to experiment with it both ways but the work/$ involved is not for me. Any thoughts?

Subject: Re: Porting of Line Array
Posted by Anonymous on Tue, 06 Dec 2005 16:00:27 GMT
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Rear ports are good. You can probably combine the drivers in groupsand make chambers for each group to make the port design morefriendly, ie.. I build my budget array with four chambers, fourdrivers per chamber, a 6" diameter rear port per chamber, 1 3/8"port length. Turns out, the wood thickness of that rear wall is1 3/8" so the port length = wood thickness so all I did was cut a6" hole in the back of the cabinet and used a small roundover bit onthe edges. Obviously, this design is tuned higher in frequency. http://home.pacbell.net/lordpk/robarray/6.jpg

Subject: Re: Porting of Line Array
Posted by MikeT on Tue, 06 Dec 2005 16:38:20 GMT
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The Axon array has 8 6.5" drivers in an 8cu.ft. cabinet. I am considering grouping these drivers and adding tuned ports out the back but am not sure I want to change the original design i.e. grouping the drivers. I would however like the port/s out the back if for no other reason than asthetics. I am wondering if this would affect the overall sound good or bad. Thanks for your help-Mike T.

Subject: Re: Porting of Line Array
Posted by Anonymous on Tue, 06 Dec 2005 16:55:33 GMT
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I don't see any reason why you can't change the design. If it wasme I'd do rear ports with driver chambers. When you chamber the boxit also serves as box bracing which is always good. I would

alsoadd MDF panels to the inside of each chamber to add wall massto lower cabinet resonance and as a bonus install a wooden rod [or whatever] to cross brace the left/right chamber walls as it willcouple the two sides and lower cabinet resonance even more. Install some sound conditioning polyfill [loosely] and tame theecho. If you want to go the extra mile, make denser soundconditioning pillows for each wall of the chamber [except frontbaffle], use Acousta-Stuf polyfill or fiberglass encased inpolyester batting to keep the fibers inside the 'pillow', attachthe pillows to the wall using 3M spray glue. This will leave thechamber 'open' so the port functions well.Like this;http://home.pacbell.net/lordpk/robarray/16.jpgThis is what the inside of one chamber looks like when peeking intothat 6" port in the back. Those pillows are on each wall, the portis able to function well as there is no obstruction by filling thewhole chamber will polyfill and it kills the echo very well.If you execute the cabinet construction well, it should be pretty sweet.

Subject: Re: Porting of Line Array
Posted by jon anderson on Fri, 27 Jan 2006 15:37:43 GMT
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Hi, I am also building the 8/12 array. Now that I have built them, I can see why more are not on the forums. This is a very ambitious project. They are huge, and mine are even bigger, as I added a sub incloser to the bottom of the speaker. They are about 81 inches tall, and are extremely heavy! I just got the crossovers finished, and hooked up all the speakers for testing purposes before I install them into the cabiniet. Wow, the drivers sound great just sitting on the floor in my living room. I can only imagine how they will sound installed into the cabinets? I will post pics when they are complete. They are finished in cherry, and will be gorgeous! Hows your project comming along? regards,,Jon

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