Subject: wayne- lab12 available
Posted by toxicport.e on Fri, 05 Sep 2003 05:09:41 GMT
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Choice-a labsub with ONE lab12,-or a labsub with ONE lab12 + flare extensionor--my own basshorn with lab12wooferi know the labsub is the best way to go,but will be abit wobbly response if its used as a sofa NEAR not in proper corner position..i can only afford ONE lab12 per box,dont need PA levels of output and wont be using 2kw.should i take the hard road and use my own LONG horn ? its hard to optimise internal volume :-Sthanks

Subject: Use it as a direct radiator
Posted by Wayne Parham on Fri, 05 Sep 2003 08:19:52 GMT
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The LABhorn comes on-line at 30Hz. Below that, its LAB12 woofers are direct radiators in a fancy box. If the goal is bass between 30Hz and 100Hz, then the LABhorn works well. But using it at frequencies below that is not wise, in my opinion. And it is physically large, which is not convenient for use in home. So to me, it makes no sense to use a LABhorn for home hifi or home theater.It would be much better to use a few smaller subs distributed in the room to smooth room modes. So my suggestion is to take the same pair of LAB12 drivers you might have put into a LABhorn and put them in 4.5ft3 cabinets port tuned to 20Hz. Overlap them with the woofers in your mains giving you four bass sound sources, distributed throughout the room. This will give you plenty of bass energy, and it will average the energy throughout the room in the modal region giving smooth bass response.

Subject: Re: Use it
Posted by toxicport.e on Fri, 05 Sep 2003 08:55:53 GMT
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20hz=90db/1watt30hz=106db/1wattso its JUST worth iti see your point though.well what il do,is try the lab12 woofer in ported 3cu ft ,22hz tuning, with 350watt. if that doesnt cure my bass appetite,i know what will - the previously mentioned 25hz*super mega blast super sized basshorn*no matter what i do,my mate needs one anyway because he will have some sort of horn design..thanks_mike

Subject: My Lab-12 experience
Posted by wunhuanglo on Fri, 05 Sep 2003 08:56:56 GMT
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I've tried the Lab-12 in both vented and closed enclosures. The vented enlsoure was varied by progressively filling space with expanding foam to try different volumes/tunings.I found the closed box, front firing to be best in my room. Down firing (slot loading) was just way too much. The reflex box had mega output, but I couldn't find a configuration that was musical.The Adire site (the Shiva people) has load of plans for boxes of all sizes. Once you decide on a size, downloading their plans takes all the thinking out of how to build it.

Subject: Re: Use it
Posted by Wayne Parham on Fri, 05 Sep 2003 17:57:15 GMT
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The nice thing for you is that you can make a larger - Something that is dedicated to your listening room. The larger size will help a great deal and you can probably reach your goal. I just don't think it makes sense to use a 30Hz horn down to 20Hz. It is best to avoid going below the passband with a basshorn, in my opinion.

Subject: Passive radiators
Posted by Wayne Parham on Fri, 05 Sep 2003 18:21:24 GMT
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Do the Adire plans you've mentioned include passive radiators in some of the designs? Seems like Nick at Lambda uses them a lot, and I think these companies are somewhat cooperative in their approaches. For small drivers with massive cones, it's probably hard to duct-tune a small box low enough.

Subject: Re: Passive radiators
Posted by wunhuanglo on Sat, 06 Sep 2003 01:00:50 GMT
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I've only paid attention to the ported and sealed boxes - I never considered a passive radiator - but I don't remember seeing any designs with them.

Subject: Other possibities
Posted by Wayne Parham on Sat, 06 Sep 2003 05:24:35 GMT
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I've never fooled around with passive radiators either. But since Vas of the LAB12 isn't very high, I expect cabinet size wouldn't be large either. So tuning a system with a single driver might have been problematic using a duct.Might go with an EBS alignment that uses a larger cabinet, but that would probably put fl down in the single digits or low teens. I'm not sure there would be much energy down there with a 12" driver regardless of its tuning, but I haven't checked either.

Subject: Re: Other possibities
Posted by toxicport.e on Sat, 06 Sep 2003 08:42:37 GMT
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100-125Litres gives nice response flat to mid 20s7.62cm port dia =22cm long -quick DOSBOX calc for 100L but isnt long! my port on jbl 175L 33hz is 42cm,and it was gona be 65 or so if i wanted a 10cm high port for extra area.ofcourse id use a huge port for

Subject: i love optimising basshorns
Posted by toxicport.e on Sat, 06 Sep 2003 08:47:34 GMT
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,not really :-Pmy first conceptautocad is for later..paper for now.it looks like a LABSUB but with extra bit.goes lower too.i think making a nice basshorn that is ideal for my usage,is the best idea-making my own-i could make the mouth 1.5metres wide even < assuming 45cm height>would be 50% longer than pictured.i imagine i could spend 199hours doing this :-Pcya!mike * no compromise* port.e :-)

Subject: Re: Other possibities
Posted by Wayne Parham on Sat, 06 Sep 2003 14:45:26 GMT
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Sounds like a good possibility there. I would expect flat response from 20Hz with something like this.

Subject: Re: i love optimising basshorns
Posted by Wayne Parham on Sat, 06 Sep 2003 14:54:45 GMT
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Cool stuff!You can face this into the room's corner and gain some on the low end too.

Subject: Passive Radiator information
Posted by Adam on Sat, 06 Sep 2003 18:00:05 GMT
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I've done several passive radiator systems, and I actually run a passive radiator system in my car. Performance is equivelent to an identically tuned ported box. PR boxes are a fantastic option when you are dealing with an enclosure that is small and needs plenty of port area tuned low. Ported boxes like this need rediculously huge, long ports... Passive radiators eliminate the need for all that.I wrote a magazine article on passive radiators about a year ago, I would recommend it as reading if you are interested in passive radiator enclosures.Adam

Momentum article on passive radiator enclosures

Subject: ported box until my basshorn finishd
Posted by toxicport.e on Sat, 06 Sep 2003 21:02:06 GMT
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the upper response looks pretty good!the eminence.com site shows a graphnot bad aye!cheers,Mike

Subject: Re: Passive Radiator information
Posted by Wayne Parham on Sat, 06 Sep 2003 21:44:44 GMT

Great post, thanks!