
Subject: Two horn theory papers
Posted by [Mike.e](#) on Thu, 05 May 2005 22:26:27 GMT
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Hi all. Maybe useful to some in case you haven't seen. Horn Acoustics ZIP Calculation through the cutoff frequency [b&w engineer] Analysis of a Folded Horn pdf Andrew Bright 1 21 Nokia Group, FIN-00045, Helsinki, Finland 2 Section of Acoustic Technology, Ørsted • DTU, Technical University of Denmark, Lyngby, Denmark ABSTRACT A boundary element model is used to analyse a folded horn. Results from the boundary element model are compared to measurements of the throat radiation impedance and the far-field acoustic response. Further analysis shows how one-dimensional and lumped parameter models can be derived from the boundary element results, and used to gain insight into the behaviour of the folded horn loudspeaker system. It is shown that one type of folded horn behaves more like a vented-box than a traditional horn-loaded loudspeaker system.

Link

Subject: web site has exceeded its allocated data transfer.
Posted by [footstony](#) on Fri, 06 May 2005 01:38:18 GMT
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Thanks mike.e, sounds interesting. I'll try again later. Regards Philip

Subject: Re: Two horn theory papers
Posted by [Wayne Parham](#) on Fri, 06 May 2005 03:24:25 GMT
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Great link, thanks Mike!

Subject: Re: Two horn theory papers
Posted by [Earl Geddes](#) on Fri, 06 May 2005 23:37:08 GMT
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Wayne Look out in the Journal for June as I wrote a correct to the mentioned paper. I've been saying for a long time that a horn loaded woofer is nothing more than a bandpass system with a big port.

Subject: Re: Two horn theory papers
Posted by [Mike.e](#) on Sat, 07 May 2005 01:54:26 GMT
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By that you mean, a damped resonant system rather than the magic, perfect phase response beast that some like to say horns are? One of those articles, they get a resonant response- I've seen this in hornresp program when I mismodel drivers on the wrong horn. Journal = AES ?

Subject: too much traffic
Posted by [Mike.e](#) on Sat, 07 May 2005 01:55:45 GMT
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Several people mustve downloaded both files in an hr... If your into the theory their well worth it. I was emailed one, and the other I dont know I just found it on my pc... If you cant find a time that its working I could email it to you. Cheers Mike.e

Subject: Re: Two horn theory papers
Posted by [Earl Geddes](#) on Sat, 07 May 2005 13:40:13 GMT
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I'm saying that a horn does not reach its actual function as a impedance matching device until it is many wavelengths long and has a mouth that is more than a wavelength across. below that it starts to look more and more like a simple port - a tube with no wall flare. So a short horn on the front of a woofer is basically a front ported enclosure. Sorry, yes to me Journal means AES journal as its probably the only one I ever read.

Subject: Re: Two horn theory papers
Posted by [robert p](#) on Sat, 07 May 2005 19:33:06 GMT
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would it be possible for you to put a copy of your jaes paper on your website or somewhere?

Subject: Re: Two horn theory papers
Posted by [Earl Geddes](#) on Sat, 07 May 2005 20:05:09 GMT

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Since the AES owns the copyright, this is illegal. Simply go to AE.org and order the papers. They cost \$2.00 each, even I am unwilling to send them out at that price.

Subject: Re: Two horn theory papers
Posted by [robert p](#) on Sat, 07 May 2005 20:27:45 GMT
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wasn't aware of that. thank you.

Subject: actual function
Posted by [Mike.e](#) on Mon, 09 May 2005 01:23:56 GMT
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I agree, many horns achieve the criteria by only slight margins. They will 'work' But are nothing like the perfect infinite horns. The reactive quality of compromised non ideal horns concerns me but they still sound alright?[quote] So a short horn on the front of a woofer is basically a front ported enclosure. Certainly theres a point where the horn is hardly functioning - and there is the opposite extreme where it is functioning to its maximum potential[horns no one can fit in their house]And often inbetween many basshorns like the labhorn[in large stacks]For my home use 42hz 2226 horn,I decided the minimum sensitivity would be 100db/1watt,below that I might as well not bother.Id love to buy some AES-its just that I think the anthology might be more useful and practical.regardsMike.e

Subject: Re: Two horn theory papers
Posted by [majestik6](#) on Fri, 02 Sep 2005 17:01:55 GMT
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While I don't need the papers myself, because I have your books and the AudioXpress AES books, you can definitely download them online. A google search will turn them up in .doc format.
