Check it out
Posted by Wayne Parham on Wed, 07 Mar 2007 16:19:28 GMT
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truck around, at 45 x 45 x 15 and less than 150 pounds.I have toyed with the idea of making a

down version with higher cutoff. I've always had a philosophical problem with undersized basshorns, those that display peaks and dips in response. However, there is some merit in the idea of making a basshorn that is designed to be used in groups in order to get the desired

used individually but is designed to be used in pairs. Of course, this means that there is actually a

version having the magnet facing the front chamber. The cooling plugs and heat plate access

possible, because the cancellation of harmonic distortion in the combined throat will be better than the cancellation that occurs from summing at the mouth. I cannot tell how much better the

I don't have software tools that can model this sort of thing. That will have to be determined by

basshorn. When a complementary pair is used, it gains the benefit of push-pull drive. I plan to

Check it out
Posted by Tim Barnes on Sun, 22 Apr 2007 02:52:48 GMT
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sense - I just hadn't thought about it. Can you achieve similar benefits in a ported box with two woofers, one facing the normal way and one reversed (presumably then connected in opposite phase so they drive the external wavefront in phase)?Have you had any thoughts about using push-pull in other designs - for example a dual-woofer corner horn with one facing into the box and one facing out? Could two cheaper woofers perform as well as or better than one expensive woofer in such a configuration?

Check it out
Posted by Wayne Parham on Sun, 22 Apr 2007 03:30:56 GMT
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You can achieve distortion reduction using push-pull drive in a vented box. In fact, the first

Check it out
Posted by Tim Barnes on Sun, 22 Apr 2007 13:39:20 GMT
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That's interesting. Did any of the experiments turn into products? Or is this something you're thinking about for a future product?tim

Check it out
Posted by Wayne Parham on Sun, 22 Apr 2007 15:33:21 GMT
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a mechanism for reducing distortion caused by flux modulation, so push-pull drive wouldn't be as

effective down to below 100Hz. Shorting rings begin to lose effectiveness at subwoofer frequencies, so I'm not sure they make sense for dedicated subwoofers but for the bass bin of a cornerhorn, flux-stabilized woofers are perfect.

Subject: Distortion reduction mechanisms...
Posted by Tim Barnes on Mon, 23 Apr 2007 20:03:53 GMT
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Thanks for explaining that. When I look at graphs that show SPL and distortion on dB scales against frequency, should I understand distortion 3dB below the output to correspond to 50%; 6dB down would mean 25%; 20dB would correspond to just over 1%?
 ...charts like p2 of this Selenium driver data sheet

Subject: Re: Distortion reduction mechanisms...
Posted by Wayne Parham on Mon, 23 Apr 2007 23:06:05 GMT
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Here's a handy distortion conversion chart:
Distortion conversion chart - decibels to percentage

Subject: Re: Distortion reduction mechanisms...
Posted by Tim Barnes on Tue, 24 Apr 2007 00:39:04 GMT
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Thanks - what a great resource. I'm learning gradually...tim