Subject: Xmax,Xbl2,Distortion
Posted by Mike.e on Wed, 31 Mar 2004 22:01:06 GMT
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Hello all1)I was looking for a low distortion driver.Is there any 3rd party measurements of the Xbl2 woofers?http://www.adireaudio.com/diy_audio/drivers/adire/sadhara.htm models up well in a horn,rather similar to a lab12.http://www.mfk-projects.com/woofers.htm that link shows some good distortion measurements although theres no constant- having constant SPL output ,or atleast constant Vin would be good,its hard to compare.Also- is the input a sinewave only,so all those harmonics + noise distortion products of the woofer/?Assuming the above,the distortion looks very bad extending right into the midrange with some woofers.No wonder Hornsubs sound so much better with the good acoustical loading and low woofer excursions.I have heard of people stating that the super huge Xmax drivers dont infact sound so good even under their xmax rating. Can this be possible/?One would think that drivers would have a similar distortion level because of the definition of it. Perhaps not?Xmax = The shorter of the Xmag and Xsus values, in each direction of cone travel. (Xmag = Excursion limit due to the magnetic limitations of the driver's motor. Xmag is defined as the displacement at which the BL product has fallen to 70% of its value at the cone's rest position. Xsus = Excursion limit due to the driver's suspension. Xsus is defined as the point at which the compliance of the suspension has decreased to 25% of the value at the cone's rest position. 2)Xbl2 seems like a good idea..http://www.adireaudio.com/tech_papers/xbl2_motors.htm"For an independent measurement of the Brahma 10 versus the Audiomobile MASS 2010 in terms of distortion, check out the December 2003 issue of AudioXpress magazine. In it, Cornelius Morton designs a Hageman sub, and takes THD versus frequency measurements for these two drivers at 91 dB SPL. His findings are:Frequency Audiomobile 2010 Brahma 10 40 Hz 2.2% 1.5% 30 Hz 5.5% 1.75% 25 Hz 12% 4.5% "Very interesting :-)Im interested in the sadhara on a horn :-) Shipping to here would cost too much however.Post any thoughtsCheers!

Subject: btw
Posted by Mike.e on Wed, 31 Mar 2004 22:05:37 GMT
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Frequency Audiomobile 2010 Brahma 10 40 Hz 2.2% 1.5% 30 Hz 5.5% 1.75% 25 Hz 12% 4.5%Thats no use,because power level and alignment and conditions arent known ..its like saying Frequency response = 20hz-20khz..within what amplitude limits :-PCheers!

Subject: Re: btw
Posted by Wayne Parham on Wed, 31 Mar 2004 22:56:41 GMT
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Yeah, you're right.  Without stating the conditions of the test, knowing the harmonic distortion doesn't mean much.I've always preferred woofers and midwoofers with flux stabilization, so I've asked Eminence to put their minds on making a low distortion subwoofer.  Check out the thread at www.AudioRoundTable.com/ProSpeakers/messages/21.html.  It links to some other threads on the same subject and I'm interested to see how this project goes.

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