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Subject: Frequency response question

Posted by [steve f](#) on Sat, 12 May 2012 12:35:14 GMT

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Wayne,

The woofer response charts in product description don't seem to show which woofers were plotted. (3 and 4 PI) Did you do the Eminence, or JBL and AE woofers? Or is the low frequency very similar between families with the advantages of the upgrade woofers appearing in the lower midrange? Thanks.

Steve

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Subject: Re: Frequency response question

Posted by [Wayne Parham](#) on Sat, 12 May 2012 15:39:46 GMT

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The measurements are all with upgraded drivers. The difference in amplitude response between the two midwoofers isn't all that great, actually, so there's nothing to see there. The biggest advantage the upgraded midwoofers have is their shorting rings, which help maintain magnetic linearity. That doesn't show up in a frequency response graph, although it does show up in distortion measurements.

The tweeters are a different story. The DE250 is noticeably smoother, and also reaches higher. They're the same up to about 5kHz, but above that, the DE250 remains essentially flat while the PSD2002 has a 3dB bump at 9kHz. That's not terrible by any stretch of the word, and some might even like it better. I've seen compression drivers with more than twice this much peaking in that same 10kHz area. But still, the DE250 is smoother and more extended above 10kHz.

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Subject: Re: Frequency response question

Posted by [steve f](#) on Sun, 13 May 2012 18:58:44 GMT

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Thanks Wayne,

As a follow up, it seems that the upgraded woofers are most important in the 3 or 4 PI models as opposed to the corner horns due to running them full range.

I keep telling my wife our next home (relocating next year) has to be "horn friendly" as I think the 6 PI is going to be my next big project. She just rolls her eyes.

Steve

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