Subject: New stuff
Posted by Wayne Parham on Sun, 29 Feb 2004 22:27:23 GMT
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Have any of you tried the new Eminence Magnum 12? It's perfect for use as a midwoofer in a

But not until after the soon-to-be-announced midhorn.Eminence has also introduced several other new products, the HL10 10" subwoofer, the ASD1001 1" compression driver, the LA6 series 6" midrange drivers as well as others. They're even selling a tactile transducer to rattle the walls in a home theater.Neat new stuff! Watch for announcements - Updates very soon.

Subject: Re: New stuff
Posted by Adrian Mack on Sun, 29 Feb 2004 23:23:17 GMT
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Hey WayneSounds cool. Can't wait to see the midhorn. About Eminence drivers, I read on another internet forum:"The entire Pro Series of Eminence has a symmetrical magnetic field, whether by extended core or shorting ring, (Faraday ring). Be careful not to get the Kappa series mixed up with the Kappa Pro series, or the Delta series mixed up with the Delta Pro series.Only the Pro Series has the symmetrical magnetic field." Does this seem right to you? Eminence don't seem to mention it anywhere. Adrian

Subject: Re: New stuff
Posted by Wayne Parham on Sun, 29 Feb 2004 23:52:09 GMT
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I'll check with Eminence on Monday, but I don't see how it would be possible to expect flux to be the same when voice coil energy is constructive as it is when destructive without a magnetic compensation circuit, i.e. flux stabilization ring. So I don't think flux is as symmetrical in the earlier models as it is in the Magnum series.I am hoping they incorporate a stabilization ring in the motors of the rest of their line. Their other models are great parts, but I don't think the harmonic distortion level is down as low as designs having motors that use flux stabilization. The earlier models sound very good, but they don't sound like they have the low distortion afforded by the improved motor design.

Subject: Re: New stuff
Posted by GarMan on Mon, 01 Mar 2004 13:43:59 GMT

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The spec sheet for the Magnum12 caught my eyes a few weeks ago. Response curve looks awesome. Love to hear some listening impressions of this cone.About the LA drivers, can these be used in a conventional box design? Is there anything special about these drivers, other than their basket shape to allow them to line up?Gar.

Subject: Re: New stuff
Posted by Wayne Parham on Mon, 01 Mar 2004 22:21:34 GMT
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I think the Magnums sound very good, actually. Great value. About the LA series drivers, they're all just 6" midrange drivers. One model has a basket shape that allows close placement, as you have noted.

Subject: Flux symmetry confirmation
Posted by Wayne Parham on Wed, 03 Mar 2004 22:52:03 GMT
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Eminence has confirmed that their motors without a flux stabilization ring do not offer the same level of AC flux symmetry as those that incorporate one. This is significant to harmonic distortion performance. But all of their motors have static physical symmetry with respect to the voice coil resting in the gap.In other words, the magnetic field surrounding the voice coil is uniform when the energy in the voice coil is not considered or not present. This design feature is important to quality, and should be considered an improvement over designs that fail to provide static physical symmetry. It cannot serve to reduce flux modulation and the asymmetry that results, but it does ensure that there is baseline symmetry. Models that also incorporate a flux stabilization ring should be considered to have improved symmetry, because there is compensation for flux modulation as well.

Subject: Re: Flux symmetry confirmation
Posted by Adrian Mack on Thu, 04 Mar 2004 08:42:58 GMT
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Hey WayneAh, thats good to know. Thanks for asking them for me. Only the Magnum's have the faraday rings I'm sure? How is static physical symmetry achieved? I would think that the flux field has to be symmetrical if the voice coil is not present or not considered, because it's the back EMF

along with the AC field generated by the drive current in the voice coil that causes modulation of the flux. So if theres no voice coil, then none of these factors exist and the gap field would have to be symmetrical (just like if the driver was not connected to anything, nothing can cause modulation). It's this sentence that's just confusing me a bit: "This design feature is important to quality, and should be considered an improvement over designs that fail to provide static physical symmetry". What is the design feature considering that neglecting the voice coil must mean the field is symmetrical? Or I might have gone wrong somewhere.....Adrian

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Subject: Re: Flux symmetry confirmation
Posted by GarMan on Thu, 04 Mar 2004 21:08:12 GMT
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If I send 1.21 GigaWatts into the flux stablization ring, will I be able to travel through time? Or am I getting this mixed up with something else?

Subject: Re: Flux symmetry confirmation
Posted by Wayne Parham on Thu, 04 Mar 2004 23:10:54 GMT
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Subject: Re: Flux symmetry confirmation
Posted by Wayne Parham on Thu, 04 Mar 2004 23:19:19 GMT
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To provide physical symmetry, the magnet is made so that it has the same flux above and below the voice coil, when no current is applied. This is a matter of making the fixed magnet physically symmetrical, but does not address the issue of flux modulation from electromagnetism. The use of a flux stabilization ring generates counteractive flux to the modulating force of the field coil. Magnums incorporate such a device.

Subject: Re: Flux symmetry confirmation
Posted by Bill Wassilak on Fri, 05 Mar 2004 14:22:06 GMT
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Maybe, Try driving it with this. It may get you there. :)
Belch Fire Series

Subject: Re: Flux symmetry confirmation
Posted by Adrian Mack on Fri, 12 Mar 2004 06:42:54 GMT
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Hahaahah very funny"Purchase Restrictions:You MUST qualify before you can purchase a BF-6000 SUX. To qualify you must first successfully complete Crown's two-week intensive BF training course. You must also show proof of current American Red Cross CPR certification and have a net worth in excess of $1,000,000 (U.S). Finally, you must also provide a notarized written note from your doctor verifying that you are of sound mind and 12 references (including at least three family references)". Even if the amp were real its speced 6KW at 50% THD so it would suck :P

Subject: Re: Flux symmetry confirmation
Posted by Wayne Parham on Fri, 12 Mar 2004 17:03:37 GMT
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The Belchfire ad is a gass! I had never seen that before - It's hilarious that Crown has it on their website!

Subject: Re: Flux symmetry confirmation
Posted by Mike.e on Sat, 13 Mar 2004 04:22:02 GMT
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Hi wayne did you see the diyaudio thread about how they were attempting to clone the flat panel XBL adire beastie?they used FEMM and things to model the magnetic circuit ,looked interestingCheers!

Subject: Re: Flux symmetry confirmation
Posted by Wayne Parham on Sat, 13 Mar 2004 15:35:14 GMT
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I didn't see that thread - Don't venture out of ART - I have precious little spare time. What was said that you found interesting? Do tell!Speaking of FEA elecro-magnetic flowsolvers, I have done some work on hardware platforms that supported Vector Fields, specifically parallel processors. My focus was on the hardware, and not on the applications software, but I was very impressed with it nonetheless. It's really neat stuff!
