
Subject: Power tapering Idea - Mass loading ?
Posted by [flacoman](#) on Wed, 12 Jan 2005 11:54:05 GMT
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Having read the white paper on line sources , I pondered the idea of mass-loading the outer drivers ,rather than lowering the drive signal.By mass loading you lower the sensitivity and Fs, thus sneaking a little more extension out of the smallish drivers used . Bill: any thoughts?TIAJorge

Subject: Re: Power tapering Idea - Mass loading ?
Posted by [Adrian Mack](#) on Fri, 14 Jan 2005 14:20:10 GMT
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Hi JorgeI think you are referring to adding extra mass to the cone? You're 100% right - adding extra mass will lower Fs, lower sensitivity and will also raise Qms and hence Qts. It will reduce excursion-limited power handling though, if your intent is to use it at lower frequencies, which is what I think you want to do as you wouldn't add extra mass unless you wanted it to do deeper.Adrian

Subject: Re: Power tapering Idea - Mass loading ?
Posted by [lcholke](#) on Fri, 14 Jan 2005 14:35:28 GMT
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Jorge,The 90deg phase point will be at a lower fs than the other drivers. I think this would be similar to moving the driver a few inches away from the listener. 10 deg at 100 hz is .091m (about 4").
$$(.330/100) \times (10/360) = .091\text{m-Linc}$$

Subject: Power tapering Idea - Mass loading ?
Posted by [flacoman](#) on Fri, 14 Jan 2005 16:29:29 GMT
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That's the exact idea . If I spread the power handling out across enough drivers , I should likely br OK. I'm thinking along the lines of a few coats of epoxy spray paint to stiffen the cone and a topcoat of damping goop. Having loaded up largish woofers in the past , I can't say too much about the midrange qualities of such a driver Thanks all ,and more comment welcomed .peaceJorge

Subject: Re: Power tapering Idea - Mass loading ?
Posted by [Adrian Mack](#) on Sun, 16 Jan 2005 03:46:24 GMT
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Yeah, try all those things. I've never used epoxy spray to add mass to a cone, so I'm not sure if it will actually add an amount of substance. Give it a go and tell us how it went. Adrian
