
Subject: Pi Alignment ?

Posted by [hitsware](#) on Fri, 12 Aug 2005 04:49:11 GMT

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How does one determine 'Rou' ?mike

Subject: Re: Pi Alignment ?

Posted by [Wayne Parham](#) on Fri, 12 Aug 2005 06:36:38 GMT

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It's best to measure the T/S electro-mechanical parameters, and use the reciprocal of Qts as Qd.

Subject: Re: Pi Alignment ?

Posted by [hitsware](#) on Fri, 12 Aug 2005 15:31:53 GMT

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Thanks! Obtaining the T/S parameters is what I'm working on. I have a 'woofer tester' that does a good job (agrees with the classic 1K Ohm method) BUT for some reason it goes bonkers on certain drivers (Fs 4Hz AND -Qts!) So I'm trying to streamline my manual method. I'd like to use the F_i & $F_h = -0.707 Z_{max}$ method for Qts (since my scope has a specific graticule for this purpose) and absolute values are not needed (Z_{max} is set @ full scale): $Q_{ts} = ((F_s / (F_h - F_i)) * (R_e / Z_{max}))$ Actually 'Qo' ??? Anyways then comes V_{as} (using added mass). But if it could be calculated at this point it would be slick. So $Rou = 1 - (((Z_{max} / Z_{min}) - 50) / 10)$ doesn't work anymore ? Technology Marches On ! mike

Subject: Re: Pi Alignment ?

Posted by [Wayne Parham](#) on Fri, 12 Aug 2005 17:07:48 GMT

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The Rou method is easy, and in many cases provides a pretty good approximation. But I think the sealed box method is better for large woofers, and added mass is better for midwoofers and other speakers with stiff suspensions.

Subject: Re: Pi Alignment ?

Posted by [hitsware](#) on Fri, 12 Aug 2005 22:26:36 GMT

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>I think the sealed box method is better >for large woofers, and added mass is better >for midwoofers and other speakers with >stiff suspensions. Yea.....Maybe too stiff of suspension is what throws the W.T. I tried the closed box method on it and managed to get a -Vas (I knew they were mind expanding :) The drivers I'm playing with (the kind used in grocery store ceilings) are all hi-Q. Anyways I came up with the below and it matches the W.T. pretty well. Used Futtrups app as a go-between. Thank You again mike
Quick and Dirty
