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Subject: frequency vs. phase

Posted by [Jerry Parker](#) on Sun, 16 Jun 2002 22:14:12 GMT

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Hi Wayne. Another question for ya. I was playing around with a signal generator on my computer, along with computer software called winisd, which you input theie small parameters and can find the response curves of different types of enclosures. Anyways, I put in the parameters for my enclosure for my big subwoofer along with the thiele small parameters and came out with the dual impedance peaks at 17 and 42hz. The box is tuned approximatly to 28hz. Now it is rather curious that the loudest note of the box is infact 42hz. That would tend to make sense, the resonant frequency of the enclosure is 42hz isnt it? Also, why is there two peaks? I assume one is for the port and the other for the driver? Minimum driver excursion is at tuning, and I get almost no cone movement at 28hz. The most excursion seems to be below tuning and 10hz above tuning, and a drop off of excursion after that. Does this seem correct?Also, at the two resonant peaks of a vented box, why is the impedance so high? I know resonance is the frequency at which the driver radiates naturally, but if that is the case, shouldnt the impedance be very low at these frequencies? Thanks!

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