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Subject: Re: LC tuning instead of ports

Posted by [Wayne Parham](#) on Thu, 06 May 2004 18:06:16 GMT

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If what you mean is a speaker output level resonator circuit, I think it's an interesting idea. One potential benefit is the ability to modify resonator frequency and Q. Frequency could be changed with core sliders that increased or decreased the amount of iron in the inductor core and Q could be changed with varying amounts of resistance in the resonator circuit. On the other hand, changing the resonant frequency is of limited value once the appropriate range is known. It's not like you really need to or want to change the resonant frequency of a vented loudspeaker because it should be set fairly specifically, usually within about 10% of some target value. So to me, the ability to change resonator frequency and Q is interesting and potentially useful, but I'm not sure it is worth the cost of implementation. Cost might actually be the most significant issue here. The components required to implement this are large, both in reactive value and power handling ability. It is likely that a speaker output level resonator circuit would be more expensive than the woofer it is used with. A port does the same thing and is much less expensive. There is another way to do it that might be more attractive, and that's to put the resonator at the preamp level. If you do this, you'll make a sealed system have the same characteristics of a vented system and the electrical components won't have to be as large. Essentially, to do this is to provide equalization for a sealed system that gives it the same response as a vented system. I think it's a good way to do what you are describing.

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