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Subject: Re: Hi-Efficiency vs Lo-Efficiency Speakers  
Posted by [Earl Geddes](#) on Sat, 08 Jan 2005 18:56:12 GMT  
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Waynel mostly agree with one disagreement. Shorting rings don't just affect even orders, they can affect both even and odd. We see the biggest effect on the second, but remember that it is the higher ones that have the most audibility. On the issue of high versus low efficiency there is another factor to what you have - correctly - said about why. To get good controlled high directivity to lower frequencies the speakers and waveguides must be large. Larger units are usually higher efficiency. Not that it has to be this way, but it is the more likely. One cannot get high controlled directivity out of smallish speakers - the typical low efficiency type - unless you use several of them. But arrays of speakers are very hard to do right - if possible at all. I have never found a solution that I liked with multiple drivers especially when the larger high efficiency units suite the task quite well. As I have said before, to me the better speakers are always higher directivity - they interact with the room less and bring you more into the recording. This is true of Magnapans, and any of the large panel systems. I just returned from the High End show at CES and to me all the small speaker two way designs all sounded the same and not very good, to a great extent due to the very poor room acoustics, which speakers like this tend to interact with very strongly. ALL of the better speakers were on the larger side with some form of higher directivity and constant coverage control - Magnapans, Edgerhorns, Zimbalies and some others whose names I have forgot. The common factor - high directivity. I think you agree with me on this Wayne, but you did not mention it. Directivity control, smooth response and low diffraction - thats the ticket for me.

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