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Subject: Dipoles and directivity

Posted by [Rapid](#) on Sat, 28 Jan 2006 17:45:19 GMT

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Hello! Is it possible to get more directivity in the bass region, 20-80Hz, with dipole subwoofers? My first idea was a ring of multiple speakers but I guess a 4m (13.1ft) in diameter ring would only have 6dB directivity at  $344/4=86\text{Hz}$ ? Cheers, Mattias

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Subject: Re: Dipoles and directivity

Posted by [Earl Geddes](#) on Mon, 30 Jan 2006 12:38:02 GMT

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Once one is below the Schroeder frequency, directivity is not really a very valid concept as the room's modal pattern dominates the situation regardless of the source type. Although different source types do excite the modes differently, directivity is not really the issue. Now from say 200-500 Hz a dipole directivity could be of use, but I've tried to make this work and can't seem to work it out effectively.

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Subject: For the neighbors then?

Posted by [Rapid](#) on Mon, 30 Jan 2006 15:48:40 GMT

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OK, but if I live in an apartment and would like to disturb the neighbors as little as possible. Would this help to reduce the bass they're hearing? Cheers, Mattias

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Subject: Re: For the neighbors then?

Posted by [Earl Geddes](#) on Mon, 30 Jan 2006 16:34:18 GMT

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Only to the extent that the dipoles produce much less bass. Isolating bass is by far the most difficult of all noise control problems. Complete structural isolation is usually required and this is completely out of the question unless you own the space. If you don't own the space then the only solution is the volume control.

Subject: Re: For the neighbors then?

Posted by [Rapid](#) on Mon, 30 Jan 2006 19:07:25 GMT

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I was afraid that would be your answer As always, you give fast and good answers to questions.  
Thanks alot Earl!

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