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Subject: Re: directivity

Posted by [rcw](#) on Fri, 12 Aug 2005 02:54:34 GMT

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I did not intend to "prove" anything by the references I quoted, merely pointing out that such testing had been done by a reputable academic researcher in a manner that is scientifically correct, and those being the findings. On the subject of directivity I would draw your attention to the paper by Johansen in the December 1994 AES Journal in which he shows that by placing two extra the conical sections at the mouth of a conical horn, you can in fact reduce the frequency at which waisting starts to occur by an amount that can be approximated by the simple average of the individual break frequencies of each section taken separately, and you can then replace these two conical sections with a continuous curve. All I can tell you is that when fed from a suitable 1st. order high pass filter, measurements on axis and at 15, 30, and 45 degrees off axis show a curve that is identical within plus and minus 3db. over the range 300-3000 Hz., and as far as I know that is the definition of constant directivity.

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