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Subject: Re: directivity

Posted by [Earl Geddes](#) on Sun, 14 Aug 2005 01:13:59 GMT

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It is true that at the low end most of the wave propagated down a waveguide will be the pure longitudinal wave because all of the other modes are below cutoff. The higher order modes are dissipated away from the throat depending on distance. These modes are known as evanescent waves and decay exponentially with distance. In a short waveguide these modes have not decayed sufficiently at the mouth so as to be ignored. I have long been aware of this issue, but have never had a chance to study it in any detail. I suspect that this is a reason why short waveguides don't behave as anticipated. If the waveguide is folded or bent at all, then the higher order modes are created again at each bend and we get the problem starting a new. The thing about the screen that gets my attention is how much unnecessary hype there is now in Home Theater. Its the new "Monster Cable". Buy a multi thousand dollar screen if you want, I'll buy a bed sheet and a lot of DVD's instead. Nice talking with you.

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