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Subject: Re: Horn Depth & Mouth Diffraction

Posted by [Cuppa Joe](#) on Tue, 13 Mar 2007 01:23:32 GMT

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So that you guys don't have to go by my interpretation, here are excerpts from the original quote (with spelling corrections): "Once the wavelength is longer than the horn, diffraction comes into play. The larger frequencies will reach the mouth and then go sideways." "Even with a large mid flare you only end up controlling the top half of the range." "...if your low cutoff in the mid is 150Hz, then the length of your horn for total control would have to be 2.29 metres long minimum." My concern, of course, is significant comb filtering in an arrayable multi-box system, whether vertical or (especially) horizontal. In an arced horizontal system, the diffractive spillage would also spell noticeable multiple arrival times. Yes, I know, the arced cluster arrays of the past are acoustically taboo, however my aim is toward a single-tier array of only 3 to 5 traps. The fact that several people in the past have told me that it can't ever sound good just makes me all the more stubborn!!

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