Subject: Re: Horn Mouth Diffraction
Posted by Wayne Parham on Thu, 06 Oct 2005 05:24:40 GMT
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I was going to suggest Geddes, but see you already have the reference. Seems like you have a pretty good handle on the issue.Maybe I've over-simplified the problem, but I've always been of the opinion that an oversized horn is a solution because the mouth is larger than the wavelengths involved. Of course, this is an impossible proposition in many cases, or at least an impractical one. But for home hifi use, where room boundaries can be exploited, you can take advantage of the walls as flare extenders if you can get the mouths close enough. So for LF and MF frequencies where size matters, the expansion from a corner can reduce edge diffraction by effectively extending the flare. And for HF frequencies, the wavelengths are small enough that you can make the horn large enough to reduce edge diffraction.