Subject: Re: Favorite flavors
Posted by Wayne Parham on Sun, 23 Jan 2005 20:09:50 GMT
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I'm not sure I understand your reluctance to see the features of the expansion of a room's corner.

radiation is equivalent to 9 DI, as expressed by Molloy's equation:DI = 10 log [180° / arcsin (sin

sound source is placed at the apex of a corner, then sound radiation is confined to eighth-space.

radiation pattern is fixed and defined by the wall angles. Because of this directionality, there is 9dB DI increase over omnidirectional radiation.Beyond that, I don't mean to be rude, but your

cornerhorn is 250Hz and the midrange is a straight-sided horn. Crossover to the tweeter is at 1.6kHz. As you can see, the wavelengths at the crossover points make it pretty easy to position adjacent radiators within a 1/4 wavelength of each other.Regarding directivity matching, the hardest range to control is the bass, which is bound by the room's walls. The midrange is placed close enough to the corner that the lowest edge of its range is aided by the walls, so where its directivity control begins to fail, the room walls begin to act as flare extensions. At higher frequencies, the horn flare alone sets its directivity. By using this approach, directivity throughout the audio spectrum is maintained within the range of 9 to 11
Measurements