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Posted by [Wayne Parham](#) on Sun, 27 Jun 2010 07:42:46 GMT

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Multisubs improve the sound of any system, regardless of the quality of the mains. I would rather

Reflections from the walls, floor and ceiling interact with the direct sound coming from the woofers to form hot and weak spots in the room. These room modes are well defined at bass frequencies, with sharp contrast between them both in terms of frequency and space. The bass will be strong at a particular frequency in some places in the room, and weak in other places. The min/max difference in SPL depends on room damping, with stiffer walls like concrete, brick, rock, tile or stucco having very little damping and producing the worst room modes. The volume levels may change dramatically, for example, 65Hz may be 10dB lower than at 40Hz but by 80Hz, SPL is up again. This kind of thing is very noticeable in bass note progressions.

The definition between modes is really only clear in the bass. By midrange frequencies, the modes become so closely spaced they become indistinguishable from one another. They become more of an averaged field. But at lower frequencies, you can really hear room modes in a room with stiff walls. The multisub approach serves to smooth room modes by filling in the weak spots from one sub with hot spots from another.

Regarding whether to use cornerhorns or not, to me, that decision is really based on room layout. Cornerhorns are wonderful in rooms with the right corners, but if you don't have the right corners,

Imaging, placement and orientationThe right layout for cornerhorns has two opposing corners that aren't too far apart, nor too close together. They allow the listeners to sit just behind where the forward axes of the two speakers cross. The corners should be unobstructed and there should be no hallways, doors or other openings for several feet. The walls don't have to be stiff, in fact, it is better that they be somewhat lossy (like drywall on framed studs). The lossy panels will help damp room modes but by the lower midrange, they'll be stiff enough.