Subject: Re: Would you say . . .
Posted by Wayne Parham on Fri, 07 Nov 2003 17:20:01 GMT
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Assuming resonance around 50Hz, wavelength at the Helmholtz and fo frequencies is around 20 feet, so distances that are less than about 5 feet are pretty insignificant, acoustically. At this scale, the distance between a room boundary and the woofer is about the same as the distance between the boundary and the port; The difference is probably less than 5 feet. So the room boundary should act the same on sound coming from the woofer and from the port.I'm sure there are some applications where the two are decoupled; I've seen a few designs where the port doubles as part of a Helmholtz resonator and also as a sort of truncated horn. But in general, the woofer and port are treated as forming a system and their inter-relationships are intimately combined.Certainly, midrange output from the cone acts differently in relationship to room boundaries than does the bass output from the port. But the bass output from the cone and the bass output from the port - within an octave of each other - interact with the room in pretty much the same way.