Subject: Re: The "right" port distance
Posted by Wayne Parham on Sat, 22 Jul 2006 15:51:03 GMT
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Martin King has been a valuable contributor of research in audio and loudspeakers for years, and he's a great guy. While I don't build transmission line speakers, I do build horns which are quarter-wave devices too. I think many (most) basshorns straddle the fence between being a transmission line and a true horn. There is definitely a transition range of sizes/flares/shapes between quarter-wave pipe and horn. Martin and I have discussed this issue in depth over the years, and his work had been extremely valuable for understanding implementations of speakers that fall in this range - in between pipes and horns.I like transmission lines and horns. But I also like bass-reflex speakers, particularly when size is an issue. Martin King has a spreadsheet that calculates bass-reflex speaker response, and it shows any standing wave features in addition to Helmholtz resonance. That's why I suggest using it if a bass-reflex box is made large enough that a dimension reaches quarter-wave size. It will show you what effects standing waves will have on response.