Subject: Re: Favorite flavors
Posted by Earl Geddes on Mon, 24 Jan 2005 15:34:10 GMT
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The issue is not scared away. The issue is that one must accept the work of the other as valid or there can not be a level discussion. My only complaint is Wayne's cursory ellimination of my experimental evidence as invalid. The implication here is that I am incapable of making good measurements. I have been doin it for nearly thirty years and am perfectly capable of doing it well. There are things that I agree with in Wayne's argument, like corner gain at LF. What I manily disagree with is that he attributes this to directivity. Directivity really only has meaning in free space. Now a room acts like "free space" above a certain frequency know as the Schroeder Frequency. Below that it is modal and not at all like free space. So in the kind of rooms that we are talking about below about 200 Hz directivity should not be used in the discussion. This means that the corner gain is real, but I object to calling it directivity.Now above 200 Hz the corner will not really act like a horn because it is too wide and not symmetric and the driver cannot be placed at the apex. So to talk about the corner as acting like a horn above 200 Hz is also incorrect IMO.I think that there are points to what Wayne is saying, but I object to his supporting arguments as invalid. He objects to my arguments because I support them with my own data.Thats the jist of it as I see it.Where Wayne and I would agree is that above 200 Hz the directivity should be at or below 90°, remain as constant as possible and that the sources should point inward to avoid wall refectiions. Thats a lot of common ground.Where we disgaree is that the walls become part of the horn. This can be true only if the driver is placed in the apex of the wall corners, i.e. actuall outside of the room. Placing a horn in a corner where the driver is outside of the corner - even by a small amount, and you simply have a horn placed in a corner. The corner does not affect the function of the horn except as the sound waves reflect off of the side walls. This is best pictured as placing four horns in a circle because this is what the walls will do. If the directivity is below 90° then they don't really influence on another. If the directivity is greater than 90° then they do influence one another, but because the acoustic centers are not coincident they will have lobing errors. Hence they will not be CD.So if the devices are less than 90° Wayne and I agree and do basically the same thing - but the walls don't enter into the picture. If the directivity is above 90° then I claim that the corner placement causes polar lobes from the wall refections interference and is not CD. I don't recommend this.