Subject: Re: Accuracy versus subjective preference, yes
Posted by Earl Geddes on Thu, 27 Jan 2005 00:46:58 GMT
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TomAs usual you did a good job of explaining some things, but side stepping others.For instance, just exactly what should the idirectivity of a source be? This was not discussed. Maybe the collapsing directivity is a good thing? in some cases. I use this natural collapsing power/directivity response in my favor. By selecting the right diaphragm radius one can match the directivity of the LF unit to the HF unit yielding a very wide frequency range of constant coverage (CD-constant directivity, which also means constant power), below which the coverage widens smoothly resulting in an increase in the power response at LF. This nicely balances the increase in absorption at LF that all good acoutic rooms must have. SInce room power is power in minus power out these factor can all be balanced such that the room sound power is relatively constant with frequency.So while I agree with your analysis, what you describe as problems can sometimes be used to advantage.I completely agree with the cone break-up problem even when it is above the X-over. Even with a 3rd order LP, I have trouble with the inherent breakup peaks poking through the total power and pressure response. Its the one problem that I am try to resolve at this point. I want a 15" that is flat, or with a slight rise, to about 1 kHz, but then I want it to die - as fast as possible. Seems that to get to 1 kHz they all have a peak just above this point.At any rate, there are many ways to skin the loudspeaker design problem - they all have their pro's and cons.