Subject: Woofer choice and attenuation
Posted by JimGore on Sun, 04 Dec 2005 13:58:02 GMT
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Hi all.I am planning to build a set of 3 way speakers early next year.Rweeter, I plan on using Morel MDT33.Midrange, I plan on using Morel MW142Woofer, I am in two minds:a) (2x) Peerless 8" (HDS series) 850490orb) (1x) Scan-Speak 21W8555 8".I have two questions:1. Which bass? The cost of 2x peerless is a little less than 1x SS.Whilst the 2x peerless drivers will have a higher SPL, the SS has a much better low frequency rollof.Plotting the SPL in WinISD gives the following results:Peerless drivers have an F3 of about 60Hz with box size of 30 lit.The SS has a F3 of about 29Hz with box size of 57 lit.The peerless pair have a better group delay than the single SS.The volume of 57l isn't a problem, because these will be floorstanding. I do however want to keep to 8" drivers so the cabinets are relatively narrow.2. I am going to have midrange and possibly woofer / tweeter attenuation problems. The SPL of drivers are below: MDT33: 92.5dB MW142: 86dB 450490: 91.2dB (I will however use this in the 90dB frequency range) (2x) = 90dB + 3dB = 93dB 21W8555: 87dB.With regards to the midrange attenuation problem: Am I correct in saying that baffle step will help me out here if I use the (2x) peerless drivers? The baffle step should push the midrange SPL up by a couple of dBs.Alternatively I need to find a good midrange with higher efficiency.Any advice would be greatly appreciated.Regards,Jim.

Subject: Re: Woofer choice and attenuation
Posted by Wayne Parham on Tue, 06 Dec 2005 15:39:49 GMT
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Yep, looks like you'll need to attenuate the tweeter. A simple fixed resistor voltage divider with high quality resistors should suffice. It will also serve to damp the crossover, providing a more constant load.