Subject: Re: Volume dropping/bsc filtering
Posted by Martin on Tue, 08 Mar 2005 23:47:58 GMT
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Hi Kane,"I tested my Jerikohorns(only one of the speakers) with a bsc filter from MJKings webside. The volume dropped dramaticly on the filtered one and when i switched to the unfiltered speaker it was way louder. I had to go to work and did not have time to try other setups but i was suprised ower the low respons when filtering and hope someone can give me advice. If this is it, i have to get a more powerful amp." Without the filter, you described below a weak bass response and a loud midrange and high frequency response. This type of description is typical of a baffle step problem. Back loaded horns should be able to overcome this phenomenon but it appears to not be working for your driver and horn combination. The filter acts as a volume control on the frequencies above about 300 Hz, it turns down the volume. The result is a less efficient but more balanced SPL response. You have to decide if the loss of efficiency with the filter is worth the balanced SPL response and the extended bass output."In the cirquit it is an paralell with a 15 ohm resistance and 3uf cap. Is this for imp correction? Is it a optional part of the filter or specially composed for the ml-tl speaker project it is meant for?"Yes, it is an impedance correction usually called a Zobel. A Zobel is used so that the BSC filter sees a purely resistive load from the driver. I have tried the set-up with and without the Zobel and my preference is to keep it in the circuit. The Zobel will not influence the efficiency and will keep the high end SPL from rising as the voice coil impedance increases with frequency.Hope that helps,Martin
Quarter Wavelength Loudspeaker Design