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Subject: Help with new design

Posted by [SantinoSan](#) on Tue, 12 May 2015 22:19:34 GMT

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OK, here is what brings me here to the Pi forums. I am in process of making a 3 way, high efficiency speaker. It will be fully active and use a mid and high horn. I have decided for now to use a SEOS12 waveguide with the B&C 250 CD. The woofer is a B&C 15NDL76. The mid has not been decided yet.

My first choice was a SEOS 24 loaded with either a Radian 745 or 951. I have the 745 in my possession, but the RCF horn I am using is introducing too much ripple. I also found out over 12k it breaks up pretty badly. I have considered a beryllium diaphragm to eliminate the breakup, but they are pricey. The Radian was a chance to go two way due to its low crossover of 500hz, but I still want a three way design. So, I could still go Radian and BIG SEOS 24 and cross around 500 hz...but then I started thinking about the Parham midhorn. It will load lower, has plenty of efficiency, is much cheaper...but, will it blend? Not sure of the voicing versus a large format horn. How will the directivity match the SEOS? What about distortion? It does have the bandwidth I need as I'll likely cross it around 1.2K due to vertical spacing.

So any opinion, ideas, criticisms. Just looking for educated opinions that may help guide the way.

Thanks,  
SantinoSan

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