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Subject: SB34NRX75-6 for Three Pi?

Posted by [audiothings](#) on Wed, 22 Jun 2011 11:57:14 GMT

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In my ongoing quest to economically build two way large format speakers that can reproduce the entire frequency range (20 Hz - 20 KHz) I have encountered the SB Acoustics SB34NRX75-6. It has a free air resonance of 19 Hz and models very well in WinISD, as far as the LF response goes.

If I were to meet with the approval of the experienced, I would consider incorporating the following design aspects from the tried and tested Three Pi:

- \* Choice of horn (H290)
- \* Woofer-horn spacing
- \* Crossover point

The differences will be that I will

- \* Use the aforementioned SB Acoustics woofer
- \* Use an external crossover with several bands of fully parametric equalization
- \* Tune the system (digitally) to compensate for room loading (they will most likely go in-wall... i.e. half space mounting)
- \* Optimize the volume of the cabinet and the ports, for maximum low end extension (while keeping woofer-horn spacing intact). WinISD recommends 250L (!)... I am willing to go that far because I make a living out of understanding what my speakers are telling me... And I really want to hear the ultra lows with total clarity and lack of clutter...

What I can see from the response graph of the woofer is that there is, like an 8 dB drop in response between 1 KHz and 2 KHz... probably 3 dB down at 1.3 K Hz... I am hoping that I can compensate for this, if necessary with a tiny bit of equalization...

Thoughts anyone? Is this a good idea? Any better way to get this sort of low end extension in a two way design?

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### File Attachments

1) [SB34NRX75-6.jpg](#), downloaded 327 times

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