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Subject: Re: 3Pi plans and questions

Posted by [Wayne Parham](#) on Thu, 02 Nov 2023 21:14:21 GMT

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You've got mail!

You can buy waveguides and crossovers from us.

I wouldn't suggest modifying cabinet dimensions unless you can do acoustic measurements to verify there is no regression from the changes. The thing to watch out for is lower-midrange anomalies, which can crop up from standing wave modes. See the Pi Speakers FAQ for more information on that subject.

As for subs, I recommend flanking subs for the left and right channels, and optionally, a distant multisub or two. You can do a search here and/or on the internet at large to learn more about multisubs and flanking subs. The Pi Speakers FAQ has a few links that discuss those topics as well.

But in short, flanking subs get a low-passed copy of the main speaker they are flanking, and their low-pass curve should be 100Hz second-order. The mains get high-passed at 30Hz. Flanking subs provide extension, baffle-step compensation and mitigation of SBIR and higher frequency room modes.

Distant multisubs are sent the LFE signal, which is an all-channel summed signal low-passed between 60Hz and 80Hz, fourth-order. Multisubs are placed far from the mains, pretty much at the other side of the room. They're used for smoothing low frequency room modes.

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