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Subject: Re: Three Pi and Three Pi Sub Plans

Posted by [timothyeyster](#) on Sat, 15 Feb 2020 18:36:41 GMT

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Hi, Wayne.

After trying a few positions, I just couldn't get my subs far enough behind or below my 3Pis and ended up with a huge hump in the 80-120hz region using a 12db/octave 100 hz crossover on the sub. Ultimately I decided to just stack the mains on top of the subs, cross them over at 60hz 24db/octave, and push them into the corners. They seem to be integrating pretty well now, with only a minor slump due to the lack of baffle step compensation. I expect this will be mitigated once I build out the screen wall, but, until then, I'm really happy with the results; By far the best low end I've had in my room!

I'm still wringing my hands a bit over the top end response, though; They still sound like the highest octave is rolled off.

I decided to take some nearfield measurements to try to confirm what I was hearing. After reading this article on the miniDSP website on speaker measurements using my Umik1 and REW

<https://www.minidsp.com/applications/acoustic-measurements/loudspeaker-measurements>

I made this measurement:

Per the miniDSP article, I placed the 3Pi in the corner, turned it in 45 degrees and raised it up until it was roughly centered between the floor and ceiling. I placed the mic at a 1m distance from the speaker baffle and pointed it directly between the bottom of the horn and top of the woofer. I then gated the measurement to eliminate the floor bounce.

The measurement seems to indicate that the response starts to rolloff at 10khz, and that comports with what I'm hearing. Does this still seem likely to be a malfunctioning crossover to you? I triple and quadruple checked the schematic against my wiring and verified each connection with a multimeter. Although it's not impossible, I would be really surprised if I still had a wiring error at this point.

If this response looks correct to you, could you suggest a way I might be able to raise the top octave response a bit to better suit my tastes? For example, would it help to install a cap at the C1 position?

Meanwhile, I'm really enjoying my setup! So much so that I've built boxes for a 3Pi center and third 3Pi sub and am in the process of finishing them with black laminate. I also have a CNC router file ready to roll for a pair of 1Pi rears as soon as I get a little more free time.

Thanks again for all of your great help!

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File Attachments

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1) [3PI Nearfield Measurement.jpg](#), downloaded 822 times

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