
Subject: Re: 4 Pi Design Questions
Posted by [mantha3](#) on Fri, 31 Aug 2012 20:13:37 GMT
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Wayne,

I'm planning to build some 4 PI "Tall" speakers like Nichol1997 did here in this thread. Basically, I'd build exactly like your plan but add 7" in height to the cabinet as Nick did. I'd center the horn but have it spaced exactly the same distance from the woofer as you have outlined in the plan.

I'm planning to use a lower brace where the bottom panel would be on your normal 4PI. I'd basically stuff the entire cabinet below this lower brace with the damping material you outline in the plan. I'd stuff around the ports and behind the port like you advise on the normal 4 PI

Here is the face of the speaker I drew up. I'd use 4" Internal Dia ports that are flared to 7" on the face. The 4" run of the Port would be 9.25" in length. This is what Nick said he did with his build.

I'm a little worried on the Port part.

You run an internal size of 3.5" X 6" for an Area of 21.5"
Two ports at 4" would be a larger area. 1 port at 4" would be $\pi \times r^2$ at 12.5" so two would be 25" of area

I think if I used two of the 4" ports I'd need to run them at least the 10" you run your 3.5" X 6" rectangle ports or more given the extra area.. Or is this somewhat larger port area not such a big deal.. Or if it was we would see something in the test Nick did? I was hoping that this test Nick did shows this port idea of Nick at two 4" ports at 9.25" is good to go.

Sorry for all the questions.. Maybe I'm over-thinking this all

PS I have an plunging head router and the round ports would be easier for me... I like the look of the round ports too... And the 7" extra height is cool as the speaker will look a bit more like a tower and not need a stand perhaps.

File Attachments

1) [4PI_Face_Mod.png](#), downloaded 11395 times
