Subject: 3 Pi sub questions
Posted by OneBean on Sun, 05 Jan 2020 05:52:45 GMT
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I have been wanting to build new subs for my home theater. My current subs are in large ported cabinets, and the drivers are not very robust. The 3 Pi sub looks like a nice size, and appears to play deep and loud, with a robust driver. I have a Sony home theater receiver that has a single RCA sub out, and offers built in room correction, by using a microphone to listen to the rooms and make adjustments. Currently, the single RCA sub out goes to a Crown PA amp capable of delivering around 600 watts per channel into 4 ohms with a high dampening factor (over 1000 at 100 Hz if I remember correctly). Is 600 watts enough for 2- 8 ohm Lab12's in parallel?

If I added 2- 3 Pi subs flanking the right and left main speakers, and then added 2 more 3 Pi subs in the corners of the room, how would I attach these 4 subs to my equipment?

Do the subs have built in cross overs, so they don't need individual active crossovers?

Is there a risk of phase cancelation with all those subs placed around the room? Most subs from manufacturers have a phase switch or knob to get the phase right.

What is included in the kit?

I'm guessing 4- 3 Pi subs in my room (approximately 30' wide x 18' deep) would recreate explosions very nice if implemented correctly. Is anyone here running 4 of these in a home theater?

Onebean

Subject: Re: 3 Pi sub questions
Posted by Wayne Parham on Mon, 06 Jan 2020 14:59:32 GMT
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The three Pi sub kit is really just a woofer and port material.  We also include the connector panel,

The crossover, as you've rightly indicated, is specific to the application.  Flanking subs use a different crossover than distributed multisubs.  And those are different than a traditional single sub application, which I do not recommend, by the way.

There are many suitable crossovers and amps you can use.  The simplest would be to mount a plate amp to the back of the box.  But most plate amps have limited crossover options.  You can also use a separate amp with MiniDSP, which would allow you a great deal of flexibility for crossover filters.  Flanking subs use a 100Hz second-order Butterworth filter, which is a one-click setting in MiniDSP.  Distributed multisubs can usually be run from the LFE channel.

More about multisubs and flanking subs at the link below:

Subject: Re: 3 Pi sub questions
Posted by OneBean on Tue, 07 Jan 2020 03:45:43 GMT
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Wayne, thank you for the reply, I'm reading through all the FAQ's. Please send the plans for the 3 Pi subs, and 2 Pi bass reflex speakers.

Subject: Re: 3 Pi sub questions
Posted by Wayne Parham on Tue, 07 Jan 2020 15:08:44 GMT
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You've got mail!

Subject: Re: 3 Pi sub questions
Posted by OneBean on Tue, 07 Jan 2020 17:03:08 GMT
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Thank you!

Subject: Re: 3 Pi sub questions
Posted by OneBean on Wed, 08 Jan 2020 14:04:32 GMT
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Wayne, on the 3 Pi sub enclosure, is there any internal bracing needed?

Subject: Re: 3 Pi sub questions
Posted by Wayne Parham on Wed, 08 Jan 2020 14:55:16 GMT
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No bracing needed.  Panel resonances are way outside the passband.  No need for insulation as damping material either, for a similar reason.  The internal standing waves are also far above the passband.