Subject: Re: Questions about Pi Speakers
Posted by Wayne Parham on Fri, 04 May 2018 23:10:37 GMT
View Forum Message <> Reply to Message

Symphonimind wrote on Thu, 03 May 2018 23:34I have just discovered about Pi speakers 15 days ago. And I think Pi Speakers will be good for my future Music listening room & Home Theater room (actually both application in the same room).

I designed acoustic treatment for my a hifi audio friend that has giant Exclusive speakers. Those speakers have big woofer and horn tweeters. In the listening test session, I can't believe how big the sound is. The kick drum of AC/DC Back in Black sound like a real drums in front of me. So I knew what is my ultimate sound is. It is a life-like sound system with high headroom and extremely good dynamic, slamming bass. I just can't go back to compact systems with small woofer anymore. They sound great and accurate but I miss the sound of big systems.
I agree with you. One of the first things I observed was that high-efficiency loudspeakers were preferable to speakers with lower efficiency. I'd say sensitivity it's second only to tonal balance in importance. Next would be directivity followed by distortion.

Symphonimind wrote on Thu, 03 May 2018 23:34I considered the options based on SEOS horn before, but after reading your comparison measurement, I forget it and decide that H290C is probably the best one I can find.
The SEOS horn is a pretty good device, but it is too short to provide adequate acoustic loading and that makes its response peaky. I realize that this isn't important to some waveguide enthusiasts, but for me, it's a pretty big deal. I think that to sacrifice acoustic loading for directivity is a bad move. Sure, we want uniform-directivity, but we don't want to have a peaky device just to gain constant-directivity. That's the lesson we learned from the the early CD horns.

Symphonimind wrote on Thu, 03 May 2018 23:34The problem is my place is tooooooo far from US, the shipping cost for heavy drivers alone will cost me a totally new mid-end sound system... So I think about buying lightweight components like cross over and H290C horn.
That's a good idea. You can buy the waveguides and crossovers from us and source the rest of the components locally. You can even buy the unpopulated printed circuit boards, if you want, and solder your own components onto them.

Symphonimind wrote on Thu, 03 May 2018 23:34In each model 3Pi, 4Pi, you give us options to upgrade. However, does crossover (which I will buy from your store) have to modify anything to adapt to my upgrade (drivers) options? If I choose the stock woofer/tweeter or upgraded woofer/tweeter, is the crossover the same?
Different drivers sometimes use different crossover components. This is listed in the plans. If you order a crossover from us, you should tell us what drivers you'll be using in the comments section of the order form. If not, we'll reach out to you to ask.

Symphonimind wrote on Thu, 03 May 2018 23:34Where can I buy speaker plans?
Study the plans and options and decide which model you want to build. Then let me know and I'll send plans.

Symphonimind wrote on Thu, 03 May 2018 23:34I like your 3Pi Subwoofer but I don't know how to

use it properly in a totally passive system (passive speaker, passive subwoofer) to maximize its ability regarding gain staging and equipments that need to connect to. I am using an 2.1 active system, and connect mains to subwoofers is dead easy. But in a passive system (I have not ever use any passive system), I don't know how.
Subwoofer crossover is dependent on usage, e.g. flankning subs, distributed multisubs, etc.
Please search the forum for these terms for more information:
Flanking Subs
Multisubs
Active Sub CrossoverIf I want to modify the enclosure (retain the same internal volume) to adapt to specific situations (for example make its depth lower to easily put behind the screen in small room, modify the port shape and location), will it affect the sound much?

That's not generally a good idea. Smaller cabinets and subs are usually safe to modify dimensions slightly, keeping volume the same. That's because the cabinets are acousticaly small, and standing waves don't develop. But larger full-range cabinets are trickier because standing waves can setup in the lower midrange, where damping materials have a hard time taming them. So you really have to be careful when modifying the dimensions.
Altering dimensions
Damping material placement
Cabinet design, port placement and internal standing waves