
Subject: 7pi plan and guidance request

Posted by [w.bartek](#) on Wed, 31 Jan 2018 23:52:45 GMT

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Hi all -

I was able to get a handful of JBL 2226 and 2242 a while back. When trying to decide how I wanted to use them I found pi speakers. I think I want to do a 7pi build but am not sure which drivers I should use. They will be used mostly for cinema type content but would also be used for music. Does one play louder than the other? How is the low extension when using the 2242 compared to the 2226? Has anyone tried using two 2226: possible having the second cabinet hung from the ceiling?

Looking forward to your feedback.

Subject: Re: 7pi plan and guidance request

Posted by [Wayne Parham](#) on Thu, 01 Feb 2018 15:44:48 GMT

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directivity cornerhorns and make subwoofers from the 2242 drivers. Put the subs in opposite corners or somewhere distant from the cornerhorns, in a multisub configuration. This will smooth

If not, then put them in an 8ft3 box tuned to 30Hz.

the 2226 drivers and flank the mains with helper woofers using 2226 drivers. This "flanking sub" configuration helps mitigate self-interference from nearest boundaries, especially the wall behind the speakers. Constant directivity cornerhorns don't suffer from near-boundary reflections

tweeter, and it would sit beside, behind and below the main speaker. This has it offset a few feet in all three dimensions. Low-pass the helper woofer at 90Hz second-order. As described above, I'd suggest the 2242 woofers be used as distributed multisubs, with the low-pass set to around 80Hz fourth-order.

Subject: Re: 7pi plan and guidance request

Posted by [w.bartek](#) on Fri, 02 Feb 2018 15:45:40 GMT

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Wayne -

Thanks for the response.

I attached a picture that shows the dimensions of the room I will be putting the speakers in. The plan is to have a screen on the 15' wall with the speakers in those two corners. The room is a multipurpose room making the other 3 corners not great options for a 18" 7pi lower cab. What are your thoughts on placing the 18" 7pi lower cabs above the 7pi's in the front corners? I would then place a third or fourth 2242 in a bass reflex cab elsewhere to help with mode smoothing.

Also, what kind of output are the 7pi capable of? Right now I am running some JBL 3678 (2226 + 2426/2342 bi radial horn) and a 4645B (2242). I would like to be able to get a similar output.

Last thought, what kind of low end extension will the 2242 be capable of in a 7pi cab? In the 4645B cabs, they have a -3db of 35hz without eq and a -3db of 22hz with eq. I believe the eq is a B6 tuning.

File Attachments

1) [room-size.png](#), downloaded 1581 times

Subject: Re: 7pi plan and guidance request

Posted by [Wayne Parham](#) on Fri, 02 Feb 2018 16:40:04 GMT

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That room will work very well with constant directivity cornerhorns.

120dB/M at full output.

the 2242 bass cabinets far away from the mains - along the 27-foot and 39-foot spans. Or maybe one in the farthest corner and another along the opposite wall span. This will give you excellent smoothing of deep bass room modes.

I'll send plans for both the cornerhorns and for an attractive subwoofer cabinet that will work well with your 2242 drivers. The shape of the subwoofer box isn't critical; Just make it 8ft3 to 10ft3 tuned to 30Hz. Low-pass the subs at 60Hz to 80Hz, fourth-order.

Placement isn't terribly critical so you can put the subs where convenient. For example, don't put the subs close to the mains or close to each other. Distribute them throughout the room. The most important thing is to use multiple bass sound sources scattered around. Do a search here for threads on the multisub concept for more information.
