Subject: 7pi vs 8pi
Posted by jgoodd8050 on Thu, 24 Feb 2011 18:45:24 GMT
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If I plan to build a top notch multi-sub bass system, is there any reason to go with a 7pi over the 8pi? I really want to use corner placement if possible.

I don't have all that much space to work with and 7pi sticks out in the room pretty far. I don't want to loose too much performance by going with the 8pi but it might be a better option.

Room size is 13x17 with a 7' ceiling. I plan to get a nice size screen between the mains too...

I'm using the studio 2pi's now.

Thanks for the advise.
Jeremy

Subject: Re: 7pi vs 8pi
Posted by Wayne Parham on Thu, 24 Feb 2011 21:25:47 GMT
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necessarily need to be placed in corners but that's where it works best. But the point is that the

Subject: Re: 7pi vs 8pi
Posted by johnnycamp5 on Wed, 10 Oct 2018 21:35:42 GMT
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Bringing up this old thread to ask a somewhat related question.

In consideration of saving space in the room,
using a forward firing 2226h bass bin under the 7pi (or should I say, under a pi mid horn and tweeter horn) it looks like one could save approximately 8" of depth..... but.....

Has anyone tried this with their corner horns?-
.
1- What does the bass bin of the 7pi bring, that a forward firing 2226 would not?

2- Is there acoustic loading on the bass driver of the 7pi...like the mid horn and cd horn above it?

3- If so, is there an increase in spl and a decrease in excursion/distortion as a result, like many

other horn loaded designs?

4- Besides some (if any) directivity loss, how dramatic do you suppose this difference (direct radiator vs. rear firing (horn) would be?

If the answer to question #4 is "much less dynamic" (punch and drama), then I would consider the idea a non starter.

Subject: Re: 7pi vs 8pi
Posted by Wayne Parham on Thu, 11 Oct 2018 02:32:32 GMT
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Facing the woofer towards the corner allows it to be acoustically close to the corner. This allows the walls to act as a source boundary - something like vertical ground planes - rather than as reflectors.

The goal is to make the sound source(s) act the same as if they were mounted flush into the wall, or rather into the corner.

Bringing the woofer out to the front of the cabinet makes it far enough away from the walls that they begin to act as reflectors. The wavefront launch is perturbed because the woofer is no longer acoustically close. This causes a self-interference notch in the upper-midbass to lower-midrange.
Speaker placement and wavefront launchAs an aside, this is the condition that flanking subs are designed to correct. That's why I often suggest that mains with traditional forward-facing midwoofers be flanked by "helper woofers" that overlap the mains in the upper-midbass. The midwoofer and the flanking sub form a two-element array which smoothes the self-interference notch from the wall behind the speakers and other nearby boundaries.
