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Subject: Re: Amp for 4pi speakers

Posted by [Wayne Parham](#) on Fri, 30 Nov 2018 15:40:18 GMT

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vandevoordekoen wrote on Wed, 28 November 2018 15:17 But I guess that those helper woofers will particularly fill the notches but won't lower the complete 100hz-300hz frequency range that is little bit too pronounced because of our room acoustics?

The flanking subs did exactly what I would have expected, which was to reduce 15dB ripple in the 100-200Hz region to 6dB ripple. That's a "textbook case" of what to expect. Flanking subs can smooth the range a little lower than 100Hz - usually down to 80Hz and sometimes as low as 60Hz - but below 60-80Hz is where distributed multisubs work best.

Your measurements show a perfect example of what the flanking sub configuration does:

Without flanking subs:

With flanking subs:

As for over-representation in the 100-300Hz range, that's not really something the flanking sub configuration can address. Flanking subs don't usually go that high and even if they did, they will generally add energy rather than cancel it.

There are some situations where peaks will be partially cancelled, but it's really better suited to "fill in the holes." And as frequency rises above 200Hz, sound becomes more statistical - a reverberent field - so it tends to become more of an average sound level and not distinct modes. That's where the EQ will become more effective.

vandevoordekoen wrote on Wed, 28 November 2018 15:17 I might buy new ones (but maybe smaller ones that blend aesthetically more in our living room, really "helper" woofers that won't go lower than the JBL woofers).

That's perfect. Probably the biggest objection and hardest problem for people to solve is where to put all the subs. It's better to have a number of small subs than one big one. But flanking subs don't have to dig deep, they just have to blend with the mains in the 80-200Hz range. So they don't necessarily need to be large. And distributed multisubs - placed further away - can be small and relatively inefficient because the fact that you are using several tends to increase SPL. So you can use relatively small boxes, and that helps when trying to work with the room decor.