Subject: Re: Passive radiator flanking sub/woofer.
Posted by johnnycamp5 on Mon, 29 Apr 2019 13:59:48 GMT
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Hello.

I have experience with one brand of passive radiator sub-

Many years ago I started with one, and then built another (passive radiator) sub, for flanking 4pi mains.
They were a 12" Scan-speak diy kit. I'm recalling the suggested enclosure was roughly 3 cubic feet.

In my room, (and to my ears) they did not blend well at all, especially if I tried to cross them over higher than around 70-80Hz, no matter the position or phase. Above that frequency they became very "muddy" sounding.
In fact, they sounded their best when set at 50Hz low pass, which is to say they would not "blend" with the mains at all.

There was a small metal (weight) attached to the back of the passive radiator woofer, where the magnet structure would normally be.
I did not play with different weights, which supposedly can change the "tune" of the sub and how it performs, so I may have been able to improve them.

Never feeling satisfied, I switched to 3pi subs to give Waynes design (ported, pro sub) a try. They blended without any effort at all, right to 200Hz if I chose to go that high...which I did not need to. Using a Crown rack amp, I settled on 150Hz.

These were the only two brands of sub-woofer I tried for flanking my mains.

The Scan-speak kits may have had a touch more output at the bottom octave (20-40Hz) but I believe they had a 4db boost @25Hz. designed into the kits plate amp, a feature I believe is useless for music anyway...

You might say they were a better HT sub, but if you haven't gotten the mid-bass right (50-150Hz?) what good is it?

I took almost no measurements with all this, so its just my personal (subjective) experience over the last six years of experimentation.

YMMV.