
Subject: Pi2 and woofer directivity

Posted by [RDLewis](#) on Thu, 28 Oct 2010 19:15:07 GMT

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Hello Wayne,

Over the years you have written many pages on matching sensitivities, phase, directivity, etc, using 2way woofer/CD horn systems, but I have not seen a lot in a similar vein on the Pi1 and 2?

You described the crossover of the "1" and "2", as using a "pseudo" first order for the bass levels off the rising Fq response and a cap and shunt resistor on the tweeter. I presume this goes some way to getting the phase right(?). But I would be very interested to know how you set out to achieve your favored "controlled directivity" with a domed tweeter? Or had other objectives with above?

You have mentioned that Pi2 Towers are in regular use in one of your systems and I see they are at the top of the list of best sellers. So how do they compare with the more expensive proper CD Horn in imaging and control?

I would be grateful if you could enlighten us all.

Thanks

Roy

Subject: Re: Pi2 and woofer directivity

Posted by [Wayne Parham](#) on Thu, 28 Oct 2010 20:04:49 GMT

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good, (2) are inexpensive and (3) efficient. They provide plenty of good, balanced sound with little power input and they don't cost a lot. Their impedance curve is pretty flat too, so that, combined with their high sensitivity makes them work well with tube amps as well with solid state receivers.

These speakers don't provide constant directivity, so their imaging isn't nearly as good as the larger models. Room coverage isn't as uniform. They're more traditional cone/dome loudspeakers, designed to be listened on-axis. But they're great for surrounds or for secondary or budget systems. I like the bookshelf model for surrounds, and the tower model for applications where they're used as mains, like a bedroom system.

Subject: Re: Pi2 and woofer directivity

Posted by [RDLewis](#) on Fri, 29 Oct 2010 10:58:03 GMT

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Hello Wayne,

I have a few other questions relating to Pi-two, if that is all right, but for now, thank you for your reply.

Roy

Subject: Re: Pi2 and woofer directivity

Posted by [Wayne Parham](#) on Fri, 29 Oct 2010 19:45:04 GMT

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Happy to help, that's what this site is here for.

Drop by anytime, hang out often!

Subject: Re: Pi2 and woofer directivity

Posted by [RDLewis](#) on Mon, 08 Nov 2010 20:59:00 GMT

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Hello again,

I did a search of the messages, e.g, "crossover components", you obviously recommend good quality parts. With the "Pi2", having just three components you can spend a lot more on each part.

You have stated you prefer to go for low inductance, high power resistors. So with the shunt on the tweeter, would there be benefits in using this type here? How much power is dissipated in this component.

Roy

Subject: Re: Pi2 and woofer directivity

Posted by [Wayne Parham](#) on Tue, 09 Nov 2010 04:57:40 GMT

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Yes, I use a non-inductive 10 watt resistor in shunt across the tweeter.

Subject: Re: Pi2 and woofer directivity
Posted by [RDLewis](#) on Tue, 09 Nov 2010 11:05:10 GMT
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Thanks.

Roy
