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Subject: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [dubwoofer](#) on Thu, 04 Dec 2014 23:56:32 GMT

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Hello,

I hope this is the right subforum...I'm planning a center channel speaker build to go in between some Altec A7's, using a 2226H and a D220Ti/QSC waveguide and was wondering if the 4Pi crossover would be suitable in this application. The current plan is to use a 3 cu ft enclosure with a 2"Hx17"Wx13"D slot vent for an Fb of about 42Hz.

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Subject: Re: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [Wayne Parham](#) on Fri, 05 Dec 2014 20:29:24 GMT

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and a compression driver mounted on the H290C waveguide. It may be suitable for use with another waveguide, but I would definitely want to see measurements to know for sure.

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Subject: Re: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [dubwoofer](#) on Sat, 06 Dec 2014 09:07:39 GMT

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Hi Wayne.

Since my post I've gone back and looked at the data for the drivers above... The D220Ti is probably not the best choice (I just had it on hand), and I'll be getting the DE250 to use instead-the consensus is it's a better transducer. I'd still like to use the waveguide I bought though.

I found the following measurements on the DE250/QSC WG combo...

<https://sites.google.com/site/drivervault/driver-measurements/horns-and-waveguides/qsc-pl-000446-gp/frequency-response>

<https://sites.google.com/site/drivervault/driver-measurements/horns-and-waveguides/qsc-pl-000446-gp/impedance>

<http://techtalk.parts-express.com/showthread.php?215536-Flex-Your-PCD-Mettle&p=1625810#post1625810>

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Subject: Re: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [Wayne Parham](#) on Sat, 06 Dec 2014 14:28:10 GMT

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The QSC waveguide is pretty close to the H290C in its acoustic properties; Even the acoustic center is pretty close. So the crossover is close too. I am taking this inference from the measurements made by Skywave Rider a couple years back. But the waveguides are different, so I cannot guarantee performance. All I can say is mount both the waveguide and the midwoofer on the same baffle and keep the center-to-center spacing as close as possible for best results.

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Subject: Re: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [dubwoofer](#) on Sat, 06 Dec 2014 21:00:54 GMT

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Should I make an effort to offset the HF unit so that the drivers are time aligned? Also how do I calculate the amount of polyfill I need?

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Subject: Re: 4Pi crossover with 2226H and D220Ti+QSC PL-000446GP?

Posted by [Wayne Parham](#) on Sat, 06 Dec 2014 23:07:32 GMT

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loudspeakers.