
Subject: Two questions

Posted by [Pilkar](#) on Sun, 09 Feb 2003 14:58:20 GMT

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Hello!!! I have two questions: First: can I mix two slopes for the midrange driver? for example, 18dB (3rd order) highpass and 6dB (1st order) lowpass. Second: PiAlign gives me a port that is 4.48" in diameter, length 6.2" and area 15. If I make the port diameter 4", which would be the length? Thank you very much!

Subject: Two answers

Posted by [Wayne Parham](#) on Sun, 09 Feb 2003 18:40:40 GMT

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First, the crossover. Sure, you can have two different slopes for the high-pass and low-pass filters on your midrange. Second, about box tuning. Use Helmholtz formula (shown below) to find the resonant frequency. You can find also this formula in the "Pi Alignment Theory" paper.

Subject: Re: Two answers

Posted by [Pilkar](#) on Sun, 09 Feb 2003 20:40:49 GMT

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Thank you very much!!

Subject: Re: Two answers

Posted by [Pilkar](#) on Mon, 10 Feb 2003 17:51:16 GMT

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Hello again! Well, I tried and tried, but I cannot find out the new value for L_c with a 4" port. I think I'm messing it up with the unit conversions. I hope you can help me, AGAIN. PiAlign gives me the following data: Encl Vol: 5 cu.ft. Encl Fr: 29Hz Encl Q: 2.48 Port Type: Cylindrical Length: 6.2" Area: 15 sq.in. Diameter: 4.48" I think that's all one needs to calculate the new port length. I want to make the port 4" in diameter. Which length would the port have then? That's all. Sorry if I'm bothering you. Thank you for your help! Pilkar

Subject: Make the port 4.5 inches long

Posted by [Wayne Parham](#) on Tue, 11 Feb 2003 09:49:49 GMT

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If you want a 5ft3 box to resonate at 29Hz with a 4" diameter port, then make it 4.5" long.
