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Subject: 2 Pi Efficiency Question

Posted by [rufus](#) on Tue, 12 Nov 2002 23:09:46 GMT

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I'm interested in the 2 Pi's and was wondering about their true efficiency. Currently, I use Klipsch RB5's that are rated at 96db, but are really about 91.7db (Audio magazine-next to last issue). I know that 91.7db is closer to the truth and have read elsewhere that Klipsch used a very advantageous measurement method to get 96db (for the entire Reference Series). Trying a pair of 2 Pi would be warranted if they really did come close to their rating. Do you feel the 2 Pi's are as near efficient as their rating? Thanks.

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Subject: Re: 2 Pi Efficiency Question

Posted by [steve f](#) on Wed, 13 Nov 2002 00:34:00 GMT

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Hi Rufus, In a word, yes. I built my son a pair of one Pi's, which are similar. Pi speakers work as advertised. You will be pleased. Steve

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Subject: Re: 2 Pi Efficiency Question

Posted by [Bill Epstein](#) on Wed, 13 Nov 2002 00:37:50 GMT

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I can't speak to the numbers, big surprise, but I can tell you that with a 30 watt solid waste receiver I can't turn the volume control past 9 o'clock. With the 2.5 watt Paramours, the neighbors call the police at about 11:00. In both cases remarkably similar to the volume levels of the 4's. 12X28X8 room. Concrete floors, cheap carpet and cracker box walls and ceiling.

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Subject: 2 Pi Efficiency Answer

Posted by [Wayne Parham](#) on Wed, 13 Nov 2002 01:31:28 GMT

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be described in terms of peak power or RMS, sensitivity has some descriptive qualifiers too. Here are some of the things that should be specified: 1. Where is the measurement taken? Even when specifying 1 meter, is that 1 meter from the horn mouth, baffle or voice coil? 2. What spatial

condition does the speaker radiate into?3. Is 2.83vRMS the input signal, or is it a signal that causes the dissipation of 1 watt?4. What frequency or range of frequencies is used?5. If a range of frequencies is used, is the range averaged? Are resonance or breakup modes included in the average?The answer to these questions can quite literally give 10dB difference in sensitivity, and I'm not exaggerating. This is actually a low figure, because just the difference of free space to eighth space represents 9dB. The difference of mid-band to resonance, either mass resonance or upper bound (breakup mode) is also often 10dB. So the difference between low-midband in free

be either 3dB or 6dB higher than half-space measurements indicate, depending on the model. This is significant because Eminence measures their components with an accurate new Klippel system in an improved, larger sound chamber. They are doing a good job at providing us with accurate measurements with this equipment, and their data shows performance in half space. That

frequency cutoff up to 1kHz, where output begins to rise. It is also at this point that an inductor in not be used for averaging. So the speaker in half space would actually only be a 94dB speaker, but since you should put it in quarter space for best performance, you can also expect it to provide 97dB at one meter, with one watt of input power.

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Subject: Re: 2 Pi Efficiency Question  
Posted by [Matts](#) on Wed, 13 Nov 2002 01:58:21 GMT  
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I have Two Pis in a med.-large room (abt.14'x20') w/9ft ceiling and am currently playing the same little 2.5-3.5 watt amps Till E. has (although maybe not wired quite as nice!) and they rock the house down. Can play all types of music w/ great bass response. Full volume is uncomfortable and I like loud music. Have them in quarter space- in a floor/wall junction, about 3 feet from the corner.

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Subject: Spaces??  
Posted by [rufus](#) on Thu, 14 Nov 2002 00:14:55 GMT  
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I remember reading somewhere that my speakers were rated in 1/8 space. Being described as being set on the floor in a corner. So, a 1/4 space would be in a corner on a stand? Is that basically the idea?

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Subject: Re: Spaces??

Posted by [Wayne Parham](#) on Thu, 14 Nov 2002 01:06:20 GMT

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Yes, that's right. You can also achieve quarter-space by placement against the wall and on the floor, but set away from the corner. Same can be done up in the ceiling; The thing that defines quarter-space is the junction of two right planes and eighth-space is a corner built with three right planes.