
Subject: Pi 4 vs JBL 4430? Wayne?

Posted by [turnitdown](#) on Fri, 02 Jun 2017 23:01:57 GMT

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I built the Pi 4s years ago and love them. I have since acquired JBL 4430s and now love them both. My questions are (LF extension notwithstanding): is the 45 x 90 vs the 100 x 100 degrees dispersion angle making me like the 4 Pi more? Are there drawbacks in the JBL horn, or is it just the more focused dispersion of the 4 Pi horn/waveguide is the only difference?

Subject: Re: Pi 4 vs JBL 4430? Wayne?

Posted by [Wayne Parham](#) on Sat, 03 Jun 2017 14:29:55 GMT

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I don't think I should remark on audio quality or opinions comparing the two. But I can say these things:

1. The 4430 was the design influence for all my DI-matched two-way designs.
 2. One big difference is the tall vertical pattern of the JBL horn versus the more narrow pattern I use. See "Matching directivity in the vertical and the horizontal planes" and pages 12-16 of the "High-Fidelity Uniform-Directivity Loudspeakers" document for my thoughts about that and the reasons I prefer a narrower vertical pattern.
 3. Another difference is specific to the waveguide I use. The design approach of a waveguide is to gradually widen the plane wave motion of the wavefront exiting the compression driver into the pattern desired. The design approach of a CD horn is to scatter the wavefront with a diffraction slot and then constrain it to the desired pattern with the flare. See "H290C Horn/Waveguide" and pages 4-11 of the "High-Fidelity Uniform-Directivity Loudspeakers" document for more information about the differences between these two approaches.
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Subject: Re: Pi 4 vs JBL 4430? Wayne?

Posted by [turnitdown](#) on Sat, 03 Jun 2017 15:15:17 GMT

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EXACTLY! They are both EXCELLENT loudspeaker systems. I believe I am simply hearing the different "shape" each one is throwing into the room. Most interesting.
