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.