Subject: Hemispheric Sound
Posted by rkeman on Sat, 20 Jan 2018 20:56:58 GMT
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The appearance of Dolby ATMOS, DTS-X and Auro 3D hemispheric sound formats has created something of a dilemma for listeners desiring the best home theater experience.
Selecting and positioning the height channels is not necessarily easy or inexpensive. The systems that I have experienced based on "upward firing" height channels has been less than impressive and most of the in-ceiling speakers available appear to have very modest build quality.

About two years ago I took the plunge and installed four Dayton Audio ME650C 6-1/2" Micro-Edge LCRS 15 Degree Angled Ceiling Speaker in my home theater ceiling using the recommended Dolby ATMOS positioning. The Daytons are conventional two-way speakers that mount in drywall and use infinite baffle woofer loading. The angled nature of the woofer in the chassis allows it to be "aimed" at the primary listening position and the tweeter can be similarly adjusted. The resulting frequency response is fairly smooth with rapidly declining output below about 120Hz. The subwoofers are crossed over at that frequency and, somewhat surprisingly, integrate fairly well. What the speakers lack is the sensitivity and dynamics that my 6Pi front channels and 3Pi center channel/surrounds provide.

Have any of the other forum members installed a similar height system or have any other ideas on how to best match a home theater incorporating Pi Speakers designs?

Subject: Re: Hemispheric Sound
Posted by Wayne Parham on Sun, 21 Jan 2018 16:24:34 GMT
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It is very difficult to get directivity from a small box, so "aiming" isn't really necessary except for the upper frequencies. I would suggest using high-efficiency midwoofer/tweeter systems mounted in the locations prescribed. Might use something like the one Pi model or a coax driver like the Eminence Beta CX series. Don't worry about aiming the baffle or midwoofer cone, but you may need to consider aiming the tweeter. If a coaxial, obviously aiming one aims the other.