
Subject: Orions

Posted by [akhilesh](#) on Thu, 22 Dec 2005 04:23:47 GMT

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I drove with a friend yesterday 250 miles each way, to hear a set of Orions, built by a real nice guy: Steve. These are the best speakers I have heard, other than the ones I have built of course. If I had to buy a pair of speakers, these would be it (well, I guess you are not totally buying them if you built some of them). -akhilesh

Subject: Re: Orions

Posted by [Bill Wassilak](#) on Fri, 23 Dec 2005 15:04:41 GMT

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Are there plans available for them, and the type of drivers there using in them. Bill W.

Subject: Re: Orions

Posted by [Manualblock](#) on Fri, 23 Dec 2005 23:12:35 GMT

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Forgive my intrusion but those DIY are mucho dinero. I think what AK; about 2800 for the kit? I was examining the plans some time ago; I do believe they are phenomenal sounding and the theory is sound, but too rich for my blood. You need EQ and separate amps plus the drivers. Lot of commitment.

Subject: Re: Orions

Posted by [steve f](#) on Sat, 24 Dec 2005 01:58:48 GMT

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I had the pleasure of auditioning the pair at Sigfreid Linkwitz' cottage. All I can say is Wow! They are the best loudspeakers I've ever heard. Yes they are pricy for DIY, but they are better than ANYTHING that the hi end manufacturers build. That is their true competition. Wilson, Von Schweikert, JM Lab, etc. all fall short of the mark. The difference isn't a small one. So a four grand investment, including amps is much better than spending forty grand for a lesser product. The user does have to accept a few absolutes. Eight separate channels of amplification, tubes need not apply. The only downside is that you need to be able to pull the speakers away from the walls. Steve

Subject: Re: Orions

Posted by [Retsel](#) on Tue, 27 Dec 2005 21:44:25 GMT

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We have Linkwitz to thank for so carefully and fully laying out the theory behind open baffle (dipole) designs. However, once the design theory is understood, the same effect can be had much cheaper using alternative drivers. I use Lowther DX4s on open baffle which is based on the Basszilla design. This was really cheap because I already had the DX4s I added a couple high output woofers on open baffle to get the open baffle bass, which is superb. Retsel

Subject: Re: Orions

Posted by [steve f](#) on Wed, 28 Dec 2005 03:02:07 GMT

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Yes, quite a few variations can be built off the basic Orion type design. I am curious. Did you develop an active crossover and EQ? What was your choice of bass driver? Steve

Subject: Re: Orions

Posted by [Retsel](#) on Wed, 28 Dec 2005 14:33:35 GMT

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I do all my frequency adjustments passively. I looked at frequency plots of the DX4 on open baffle and I inserted a simple inductor to flatten out the frequency response from about 500 hz and up. It does not even out the frequency anomalies in the 5 - 10 k range, but it does do a good job overall. I high pass the DX4 using the coupling capacitor between the driver and output tube of my 300B SE amps. The woofers I use are a set of 15 inch drivers Genesis uses with their subwoofers. I had one from a nonfunctioning subwoofer and a second which was a spare. These are mounted on the same baffle as the DX4s (in a sort of U-baffle). I also have a set of Avalanche 18 inch drivers on open baffle mounted in a W-baffle. I crossover to the woofers at about 100 hz. I use a 500 watt/channel Hafler amp to drive the woofers. Retsel

Subject: Re: Orions

Posted by [akhilesh](#) on Wed, 28 Dec 2005 16:18:26 GMT

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Hi Bill, They use peerless woofers, SEAS midrange and SEAS tweeter (dome). You can get plans at: http://www.linkwitzlab.com/orion_challenge.htm They are active, and EQed, with I believe the

ability to adjust EQ somewhat. I wouldn't mess with Linkwitz's design. These are the best designed speakers I have ever seen, for home listening. They would not work in a pro setting, but for home sound and accurate fidelity, they are the best designed. I would not mess with the design, simply do it word for word. A friend of mine in Tulsa is planning to build them, and after they are done, I might be tempted as well. Their specs are awesome (± 1 db from 25 Hz up to whatever) but more so is the imaging. These are AWESOME imagers. The only place where they suffer is in dynamics, compared to say a Klipschorn or VOTT system, that has been properly equalized. I listened to them, came back, and re-EQed my VOTT system, which was not too well EQed when I had the audio meet last week (sorry guys). The Altec system sounded good, and certainly more "live" in terms of dynamics. However, the Orions are on a different planet in terms of 3-D imaging. After the Klipschorn's design of 1948, I really think this is the most significant design in home speaker reproduction to come out. It is also a very attractive design, and does not require too much space. A very clever and elegant design indeed. Kudos to Dr. Linkwitz for sharing his work with us. -akhilesh
Orion website
