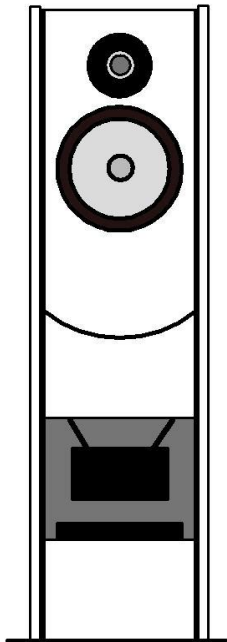


LINKWITZ LAB

Sensible Reproduction and Recording of Auditory Scenes

ORION Loudspeaker System - Room 414 at RMAF 2010

Linkwitz Lab announced the ORION loudspeaker system on the Internet in 2002 as a DIY challenge to build a state-of-the-art loudspeaker system. Wood Artistry offers custom-built turnkey systems and subassemblies to give everyone access to the remarkable product.



The ORION open-baffle loudspeakers disperse sound widely and evenly such that reflections from the room's surfaces have essentially the same spectral content as the direct sound. Placement of the loudspeakers out in the room adds delay to the reflections, allowing the ear-brain hearing apparatus to differentiate between the direct sounds from the loudspeakers and the room's response. In effect, room and loudspeakers disappear and a phantom auditory scene appears in front of the listener.

Revision 0.1 of the ORION brought magnet mounting of the midrange driver. Revision 2 added a rear tweeter. Revision 3.2, two months ago, was a readjustment of the frequency response for increased spectral clarity and detailed spatial rendering of stereo recordings.

Revision 4, shown here as a first prototype, changes the woofer section of the loudspeaker to a W-frame with two long-throw 10 inch Seas woofers in a force cancelling arrangement. The sound quality of Rev. 3.2 is to be preserved. But this driver arrangement reduces mechanical vibration of the cabinet and reduces transfer of vibration energy into the floor, which can cause resonant re-radiation from floor and walls in lightly constructed houses. Performance, long-term availability and support are strong arguments for Linkwitz Lab products.

Design documentation for ORION-3.2, blank printed circuit boards and a fully assembled Crossover/Equalizer ASP are available from Linkwitz Lab for different levels of DIY construction. Wood Artistry delivers turnkey systems and subassemblies in a range of wood choices. ORION-4 may be added late Q2, 2011.

