Subject: Geddes Waveguide
Posted by Paris on Tue, 12 Oct 2004 18:44:58 GMT
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I am intrigued by Geddes horn philosophy. Horns like this seem to be a wave of the future. Let me quote Geddes. He says, the goal is smooth constant directivity over a prescribed angle. Most CD horns use a diffraction slot to obtain polar control, however, diffraction gives rise to periodic peaks and dips in the response at all angles because of standing wave created from the wavefront reflection at the point of the diffraction. It is well known that diffraction less horns, like tractrix have superior sound quality, but they lack directivity control. The goal then is directivity control without diffraction. The holy grail would seem to be CD horns without diffraction. Maybe tractrix and other horns like it are obsolete?
http://www.gedlee.com/new_loudspeaker.htm

Subject: Re: Geddes Waveguide
Posted by Mike.e on Wed, 13 Oct 2004 22:56:53 GMT
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hmm i dont know enough about HF horns to comment..Read something like the jbl4430 manual -which describes DI and all sorts and says exactly why there product is good.Also many graphs and diagrams.

Subject: Re: Geddes Waveguide
Posted by Mark Seaton on Fri, 15 Oct 2004 21:47:19 GMT
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Has anyone ever seen this waveguide? I can't even find a verbal description anywhere.-Mark Seaton

Subject: Re: Geddes Waveguide
Posted by Earl Geddes on Fri, 24 Dec 2004 03:35:30 GMT
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There is more to my theory than simply the shape. All of this is well documented in my book or in AES papers and the like. Its not new at all, nearly twelve years old at this point.

Subject: Re: Geddes Waveguide
Posted by Paris on Mon, 03 Jan 2005 11:11:08 GMT
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Thanks for writing here. From what I gather, you don't like the dispersion of tractrix horns, and don't like response of CD horns. Is that about it? What about a combination of the two, a CD horn with a radiused edge? That's what your prototype looks like it uses. Is that what you propose, in a nutshell?
http://www.gedlee.com/new_loudspeaker.htm

Subject: Re: Geddes Waveguide
Posted by Earl Geddes on Mon, 03 Jan 2005 13:59:21 GMT
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I don't think my point is that black and white, but yes, I think that things can be improved over Tratrix and CD horns. Mine are not simply classical CD horns with a radius'd edge. Its not quite that simple.

Subject: Re: Geddes Waveguide
Posted by Paris on Thu, 06 Jan 2005 11:08:57 GMT
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Would you care to elaborate? I am most interested in your design concepts and want to know more. Are your speakers for sale anywhere now? Where can they be auditioned?Thanks in advance.

Subject: Re: Geddes Waveguide
Posted by Paris on Thu, 06 Jan 2005 11:14:31 GMT
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Look at the polar response of the Geddes speaker at the link. From what I know, it uses the narrowing DI of the woofer to match the waveguide at crossover for very smooth polar response. The waveguide has constant DI, so it is EQ'd in the crossover for flat power response. Isn't that about right, Dr. Geddes?
http://www.gedlee.com/waveguides.htm