Subject: Comments on this low-efficiency 2-way?
Posted by Bill Epstein on Wed, 11 Jun 2008 06:23:10 GMT
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Well, ya have to do something besides cleaning at 4AM and this morning I went looking for something entirely different. Those 70 watts are calling me...A 3. 25 cu ft ported box, according to WinIsd with these drivers crossed at 3500Hz:Usher wooferUsher tweeterBeen thinking for some time about how mainstream audio uses long excursion/low efficiency woofers to get below 30 hz wihtout breaking a sweat so my interest in building this, with a 4th order L-W crossover is real.

Subject: Re: Comments on this low-efficiency 2-way?
Posted by Kim Schultz on Wed, 11 Jun 2008 08:18:36 GMT
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I would not crossover this high on a 10" inch woofer, there might be some nasty cone breakup modes up there.The tweeter is a 28mm dome with a resonans freq. of 700hz, so it should be safe to cross anywhere from around 1500-2000hz/24db, and up.The woofer response shows a rising response from 900-2300hz, so you might want to cross lower on the woofer, and use the natural rolloff combined with the crossover, to get the desired crossover point.

Subject: Re: Squiggly lines and vented boxes
Posted by Bill Epstein on Wed, 11 Jun 2008 16:26:00 GMT
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I can't find how those fellas at Usher measured the driver except the distance and impedance. Does the chart imply loading into a box or no?Using WinIsd the ant trails smooth out into a really nice clean interstate across Nebraska leading me to believe I could crossover anywhere between Norman and Salt Lake City.The plot has that mountain range between 900 and 1500 hz just as you say. If the box doesn't smooth that out, does that mean it must be crossed no higher than 900 Hz or will the choice of type of crossover do that?I woul;dn't like to use the tweeter much below 2000 Hz if possible, less for safety than to get the crossover point well above the primary treble range of voices and instruments.