Subject: Re: 2Pi Tower questions
Posted by Wayne Parham on Sat, 03 Dec 2011 02:09:41 GMT
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The coil is a 0.5mH, and the tweeter cap is 10uF. But the actual crossover frequency is really just south of 2kHz. You can see it pretty clearly in the impedance chart.

I tried a handful of crossovers, some with higher frequencies and slopes. I didn't like the higher crossover points as much as I did the lower ones. But there was a higher-slope filter I almost used. I think it was 4th/4th, pretty close to a Linkwitz-Riley but dialed in for driver reactance. In other words, it had a Zobel and some values were tweaked a smidge off the textbook values to obtain the best response.

I ended up choosing the first-order because I didn't feel the more complex crossover was worth the extra parts count. This kind of speaker really responds to a simple first-order crossover, in my opinion. The tweeter is able to handle frequencies down to about 700Hz, which makes it pretty happy with the 10uF cap.