Subject: Re: Alpha 10 modeling
Posted by Wayne Parham on Tue, 20 Dec 2011 23:00:53 GMT
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It looks like your red line is around 1.25mm, yes? But xmax of the Alpha 10 is 3.2mm and xlim is 9.1mm.

You can check this with distortion measurements, if you like. It stays low in the passband, and rises below it. All through the passband, distortion stays low at power levels under 100 watts. As power is increased to 100 watts and above, distortion rises around ~60Hz, as excursion begins to become excessive in that region. So the models track well with measurements.

One other thing: The Helmholtz frequency is 40Hz, not 50Hz. If you make this change in your computer model, it will be more representative of the behavior of the physical device. Your response curve will change from being slightly underdamped (humped, as shown in your simulation) to slightly overdamped, (flat, no hump) and a bit gentler rolloff than max-flat. Just an FYI.