Subject: Re: 4 pi speakers + 3 pi subwoofers, pics & measurements
Posted by Wayne Parham on Thu, 28 May 2015 19:36:50 GMT
View Forum Message <> Reply to Message

I think we can rule out the microphones, because two different ones show the same trend. And I think we can rule out the waveguide, both because its properties are known and also because measurements show it hasn't modified response. We would expect no response change from a waveguide or CD horn. But that still leaves the compression drivers and the measurement system.

The DE250/H290C driver/waveguide combination has less rolloff up high than what I would expect, which is why the crossover has no capacitor in position C1. Traditionally, one would expect to have compensation for mass-rolloff in the form of a first-order high-pass filter in the crossover's tweeter circuit. But not all drivers are like that.

Mass-rolloff is expected, and it's really more unusual to not have it on a CD horn or waveguide. So the DE250/H290C combination is unusual.

Which leads me to this question: Is the driver you're testing a DE250? If not, you might consider installing a capacitor in position C1 to provide mass-rolloff compensation. The response curve shown looks like it could use it. So if the driver isn't a DE250, this may be all that needs to be done.