Subject: Re: Finished Pi 4 with photos
Posted by Wayne Parham on Thu, 25 Jun 2009 01:04:38 GMT
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As I said earlier (or tried to say, but may have been too wordy) the basic setup looks very close to me, so I would expect results to be good. I would further expect you'll be in the ballpark with respect to the position of the forward lobe and nulls. The thing is, even though the horns look similar in appearance, size, basic shape and polar response - they're not the same, so there is some question how their subtle differences might change things, specifically in the critical crossover region.

The lower end of the passband is where crossover is done, and that's where a horn or waveguide is most compromised. The differences between similar horns/waveguides are manifested mostly in this region. Directivity and acoustic phase are shifting in the lower end of the passband, and those things contribute pretty heavily to the on and off-axis summing between adjacent subsystems.Basically what I'm saying is it could be a drop-in replacement, or it could be some small changes are in order.