
Subject: Re: Wayne, compensation question please
Posted by [Wayne Parham](#) on Wed, 13 Nov 2002 17:17:38 GMT
[View Forum Message](#) <> [Reply to Message](#)

Some CD horns of this size are better candidates than others. They all have a pretty similar overall curve, but each has its own particular "signature," and its small peaks and valleys are in different places. Again, the reason for the "splash" is a ~7kHz peak in the 2370 from the diffraction slot in its throat. It causes an internal reflection that makes ripples in the impedance and response. You'll see this in Manta Ray and BiRadial horns, and it's there to increase dispersion. Pretty much any horn with sharp edges does this. Those edges are there for pattern control but their disadvantage is they cause internal reflections, impedance and response peaks. The deal with passive compensation is your ability to tailor the curve is somewhat limited. For example, when attenuation requirements are low, that also necessarily means that top octave augmentation ability is also low. You could add notch filters to the RC filter/damper I've employed, but I prefer to keep it simple. There are some limits to this approach, but the horns discussed on this forum are

horns that wouldn't benefit by some amount of this technique. If you need a lot of augmentation and a little attenuation, your passive network design choices are generally limited. Likewise, if you need attenuation but the augmentation slope deviates from diagonal too much, then your choices are also limited. But really, when used above the frequency where a horn becomes well loaded, it will generally be flat for a while and then enter a couple of octaves of smooth rolloff at a