Subject: Re: Effect of Length Posted by Keith Larson on Mon, 02 Aug 2010 03:57:53 GMT View Forum Message <> Reply to Message

Hm, maybe it would help to consider a hypothetical but not too unrealistic case?

As an example consider a speaker (or combination of speakers) whose impedance is nominally 8 ohms, with a 64 ohm peak in the bass, yet falls to 4 ohms at 20 kHz. Now suppose you are using a long (or crappy) cable with an R=1 ohms and 8uH inductance. The nominal loss would be 20*log(8/(8+1))=-1dB and the bass peak would be -0.134dB. However, at 20 kHz the cables total impedance is now 1+1j ohms (1.414 angle 45'). In this case the -2.6dB. The total variation is 2.5 dB, so a better cable might help, but from a simplistic view this is really not much more than a tone control. On the other hand, Wayne's point about damping comes to mind.

Incidentally when something sounds bad, what I usually find to be most problematic are bad connections, oxidation and corrosion. Basically this is loose screws, oxidized wire and incompatible metal contacts.

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