Subject: Pre Compensation Load on X-OVERS and L-Pads
Posted by dB on Tue, 03 Jan 2006 20:28:35 GMT
View Forum Message <> Reply to Message

Hi to everybody on this great Forum (website) and to Wayne Parham in particular, from Portugal.After reading your great paper on Speaker Motors and passive crossover filters, from http://www.pispeakers.com/Speaker_Crossover.doc, I have a few questions to pose. But most important is about the Pre Compensation Load on X-OVERS and L-Pads you use.1. What is a pre-compensation load? Is it the same as the R2 on a L-Pad (R1/R2)? 2. Is it possible to have a pre-compensation without the main R1 attenuation? Or is it just a reactance adjustment for the motor? (in some PA speakers I have no R1 and a R2=16.5 Ohms in shunt with the motor / X-over C=3.3uF series and I=0.72mH shunt / What x-over freq. is this and how to find if HF/Motor is of 8 Ohm impedance?)3. Are the designs you show for L-Pads correct, since they do not show the same connections as for other (standard) L-Pads? As an example from pag.60 a 12dB attenuation R1=25, R2=16, C1=0.47 and from pag.63 a 14dB attenuation R1=30, R2=14, C1=0.33. I am used to see R2 in shunt with the Motor and "after" R1. As an example from another site: http://www.lalena.com/audio/calculator/lpad/ For an LPad (Driver Attenuation Circuit) with Att=-12 db and Z=8 Ohms => ResistorsR1 = 5.99 OhmsR2 = 2.68 OhmsOr for an LPad with Att=-14 db and Z=8 Ohms => ResistorsR1 = 6.4 OhmsR2 = 1.99 OhmsHow can your design deliver 10.8 Ohm in the HF/Motor side on the first case and 10.2 Ohms on the HF/Motor side of the X-over for the second case? Is this right? Are the BIG resistor values you use better -- as in table of page 23 -- than say the small values for 'other' L-Pads as in Lalena.com. What is the difference, are they of the same effect after all?Congratulations and Happy New Year.da Bastos