True Audio's Linkwitz Transform Circuit Design Spreadsheet

21-sep-99

Enter the values in bold (non bold values are calculated)

Enter the Following:

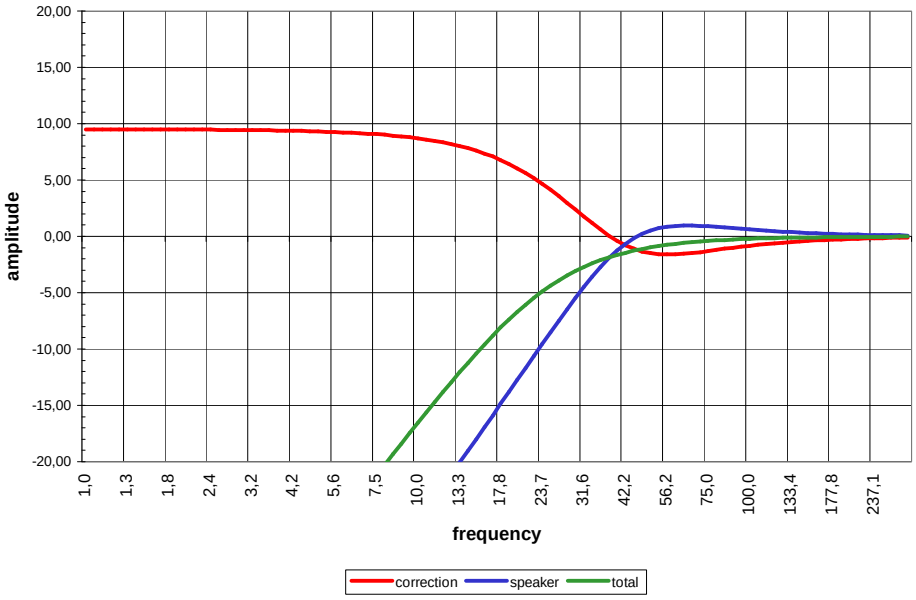
f(0) =	43,21	Hz
Q(0) =	0,95	
f(p) =	**25**	Hz
Q(p) =	**0,60**	
k =	0,144	(k>0 required)

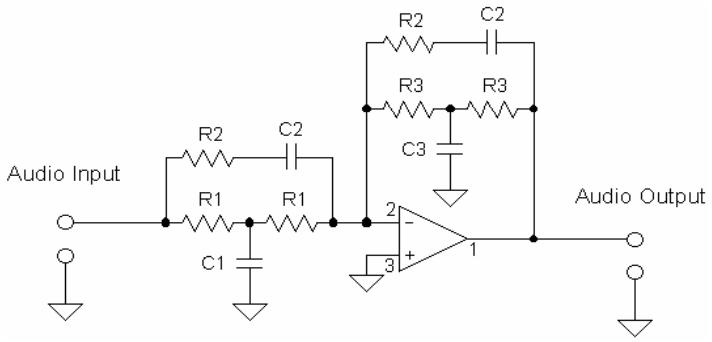
Choose C2

C2 =	**0,15**	µF

The Component Values Are:

R1 =	11,29	kOhms
R2 =	3,26	kOhms
R3 =	33,74	kOhms
C1 =	0,709	µF
C3 =	0,2374	µF
DC gain =	9,51	dB





Notes:
1. **F(0) and Q(0) are the F(sc) and Q(tc) of the existing closed box speaker.**
2. **F(p) and Q(p) are the target F(sc) and Q(tc) of the "transformed" system.**
3. **Increase C2 to lower R1, R2, R3**
4. **The frequency ratio sets the DC gain. Caution on using DC Gains over about 20 dB !**
5. **See the Linkwitz article in Speaker Builder, Issue 4/1980**

Thanks to Luc Henderieckx (luc.henderieckx@pandora.be) for additional analysis and the response plots!
Thanks also to Dean Canafranca (deanc@super.net.ph) for the speaker box analysis sheet

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Added ability to use litres in "Box" sheet - Rod Elliott (ESP)

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