Subject: How do I measure the Le of a speaker?
Posted by Tre' on Wed, 05 Apr 2006 14:06:09 GMT
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"LeThis is the voice coil inductance measured in millihenries (mH). The industry standard is to measure inductance at 1,000 Hz. As frequencies get higher there will be a rise in impedance above Re. This is because the voice coil is acting as an inductor. Consequently, the impedance of a speaker is not a fixed resistance, but can be represented as a curve that changes as the input frequency changes. Maximum impedance (Zmax) occurs at Fs."I'm trying to implement a Zobel on a Trusonic FR80. I would like to find the TS's for this speaker.Thanks...Tre'

Subject: Re: How do I measure the Le of a speaker?
Posted by Wayne Parham on Wed, 05 Apr 2006 15:28:21 GMT
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Measure the impedance of the speaker to find Le. It will be a complex impedance, having both reactance and resistance. You can use a Wheatstone bridge (inside a dedicated tester) or one of the measurement systems like Speaker Workshop to find impedance of your speaker.

Subject: LCR meter
Posted by spkrman57 on Wed, 05 Apr 2006 23:35:09 GMT
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Like from Parts Express.I use mine often for testing tolerence of caps and coils!Ron

Subject: Re: How do I measure the Le of a speaker?
Posted by Martin on Thu, 06 Apr 2006 22:02:08 GMT
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Unfortunately, the effective Le and Re of the speaker's voice coil are going to change with increasing frequency. Fortunately, the Zobel circuits are not that sensitive so getting a Le and Re result at 1 kHz is good enough for sizing the Zobel. This is why there is typically a 25% factor in the rule of thumb equations for calculating the Zobel's capacitance and resistance.Martin

Subject: Re: How do I measure the Le of a speaker?
Posted by Tre' on Fri, 07 Apr 2006 03:44:11 GMT
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Thanks, but how do I measure inductance at 1K hz? Can I make a inductance bridge like a impedance bridge?I have an inductance meter but I don't know what freq. it uses.Tre'

Subject: Re: How do I measure the Le of a speaker?
Posted by Tre' on Fri, 07 Apr 2006 04:07:19 GMT
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I found it. Le=(sqrt(3)*Re)/(2*pi*fx)I have to find Re and fx first, but the article shows how to do that.Thanks...Tre'
Speaker how to