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Subject: Re: Yes, But!!!!

Posted by [Wayne Parham](#) on Sat, 12 Mar 2005 02:51:03 GMT

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Coils increase inductance and resistance in series, decrease in parallel. This assumes there is no magnetic interaction between coils, that they are separated physically and/or out of alignment so their flux is in different axes. If they combine, this changes inductance in an additive or subtractive fashion, depending on their magnetic interaction. That's why coils on crossovers are sometimes placed in different orientations, to prevent interactions. The formula for series inductance is:  $L_T = L_1 + L_2 + L_3 \dots$  Likewise, for series resistance:  $R_T = R_1 + R_2 + R_3 \dots$  Parallel inductance is found by:  $L_T = 1 / (1/L_1 + 1/L_2 + 1/L_3 \dots)$  And parallel resistance by:  $R_T = 1 / (1/R_1 + 1/R_2 + 1/R_3 \dots)$

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