

### Equation

Eqn2

$R_{series} = R_s / EXP1$

$EXP1 = (1 - W \cdot W \cdot L_s \cdot C_p)^2 + (W \cdot C_p \cdot R_s)^2$

$X_{series} = (W \cdot (-C_p \cdot R_s \cdot R_s + L_s \cdot (1 - W \cdot W \cdot L_s \cdot C_p))) / EXP1 + W \cdot L_{lead} / (1 - W \cdot W \cdot L_{lead} \cdot C_{shunt})$

$ZB = (R_{series} + j \cdot X_{series}) / ((1 - W \cdot C_{shunt} \cdot X_{series}) + j \cdot W \cdot C_{shunt} \cdot R_{series})$

$ZBR = \text{real}(ZB)$

$ZBI = \text{imag}(ZB)$

$Z = ZB + j \cdot W \cdot L_{lead}$

$ZR = \text{real}(Z)$

$ZI = \text{imag}(Z)$

**dc simulation**

DC1

**Parameter sweep**

SW1

Sim=DC1

Type=log

Param=Freq

Start=1e6

Stop=1.3e9

Points=151

### Equation

Eqn1

$W = 2 \cdot \pi \cdot \text{Freq}$

$R_s = 51$

$L_s = 8n$

$C_p = 1p$

$L_{lead} = 1n$

$C_{shunt} = 0.1p$

