

# Device Modeling Report

COMPONENTS: CHOKE COIL  
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MANUFACTURER:  
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**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

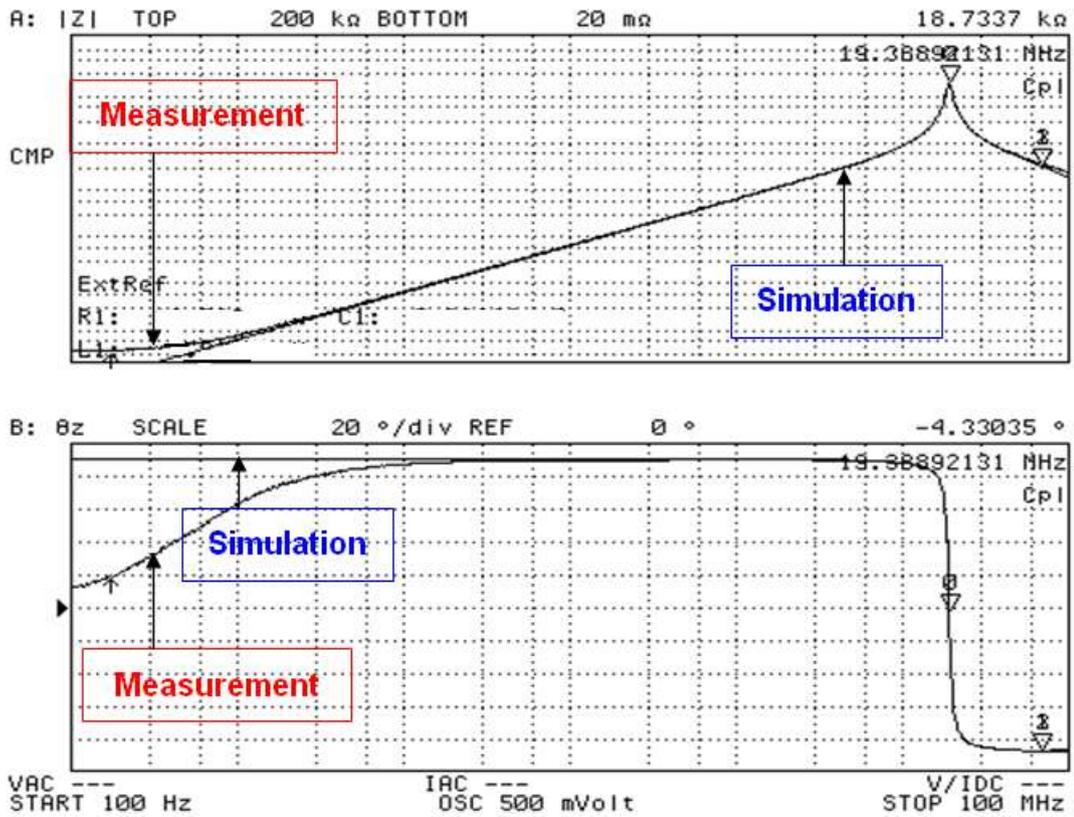
### Optimization of Simulation

Range of adjustment Frequency: 100 to 100M(Hz)

Frequency vs.  $|Z|$  and Frequency vs.  $\theta z$  Characteristic

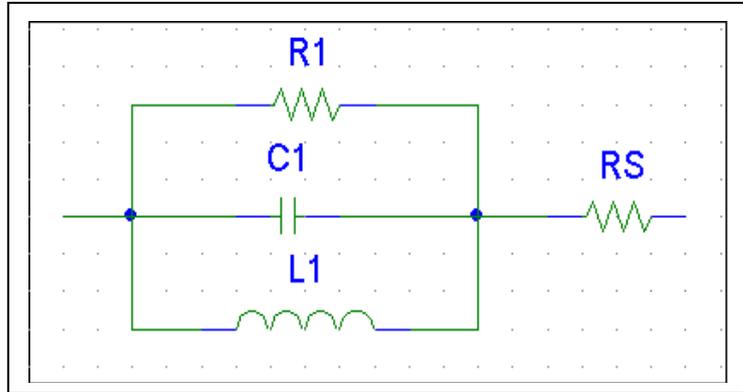
Attention)

*Please use SPICE MODEL within the range from 100 to 100M(Hz)*



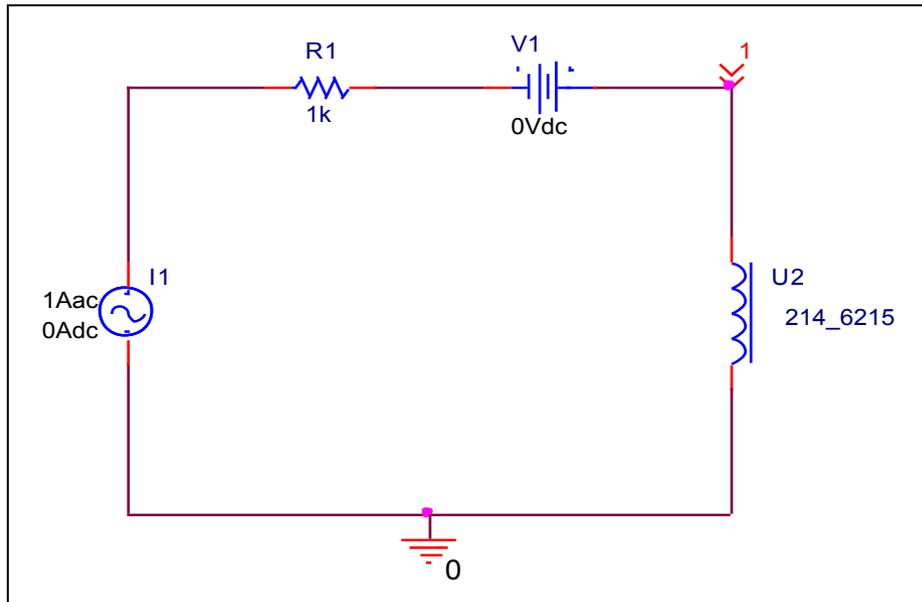
L1	
C1	
R1	

Equivalent circuit

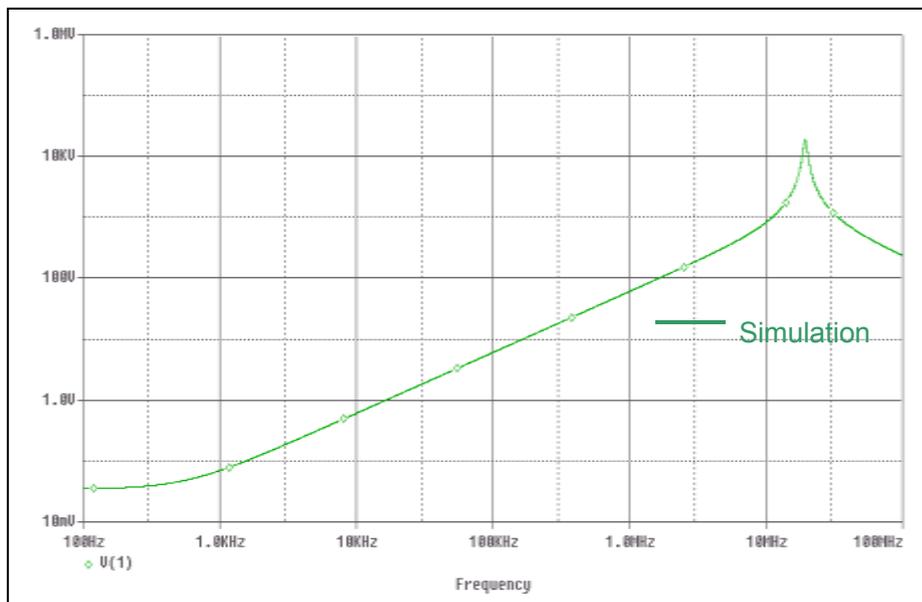


## Frequency vs. $|Z|$ Characteristic

### Evaluation circuit



### Simulation result



Comparison Table

Frequency (Hz)	Z (ohm) : Measurement	Z (ohm) : Simulation	% Error
<b>100</b>	33.8191 m	34.931 m	-3.288
<b>100K</b>	6.32555	6.0512	4.337
<b>1M</b>	61.938	60.672	2.044
<b>10M</b>	833.269	838.075	-0.577

	Measurement	Simulation	% Error
<b>F<sub>SRF</sub> (Hz)</b>	19.389 M	19.364 M	0.129
<b> Z  (ohm), at F<sub>SRF</sub></b>	18.7211 k	18.753 k	-0.170