

# Device Modeling Report

COMPONENTS: CHOKE COIL  
PART NUMBER: 228-472  
MANUFACTURER:  
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**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

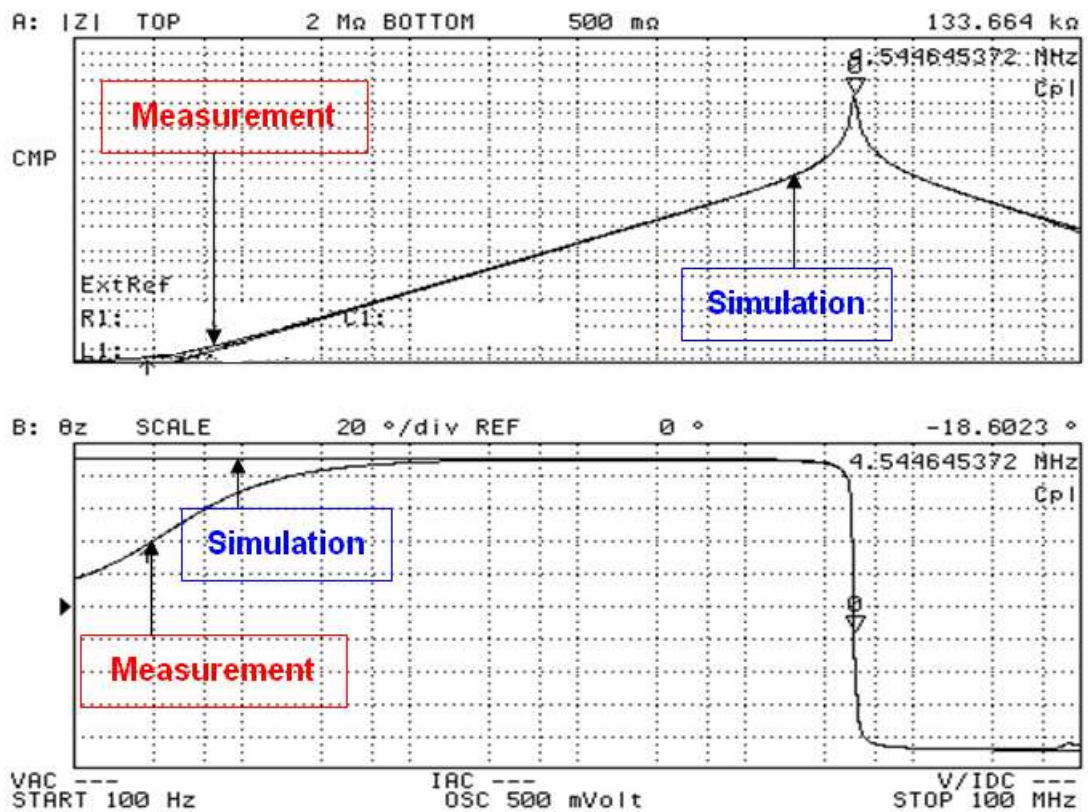
### Optimization of Simulation

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

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

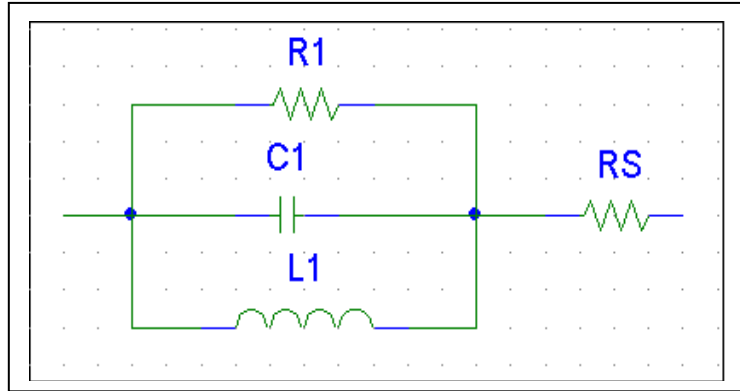
Attention)

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



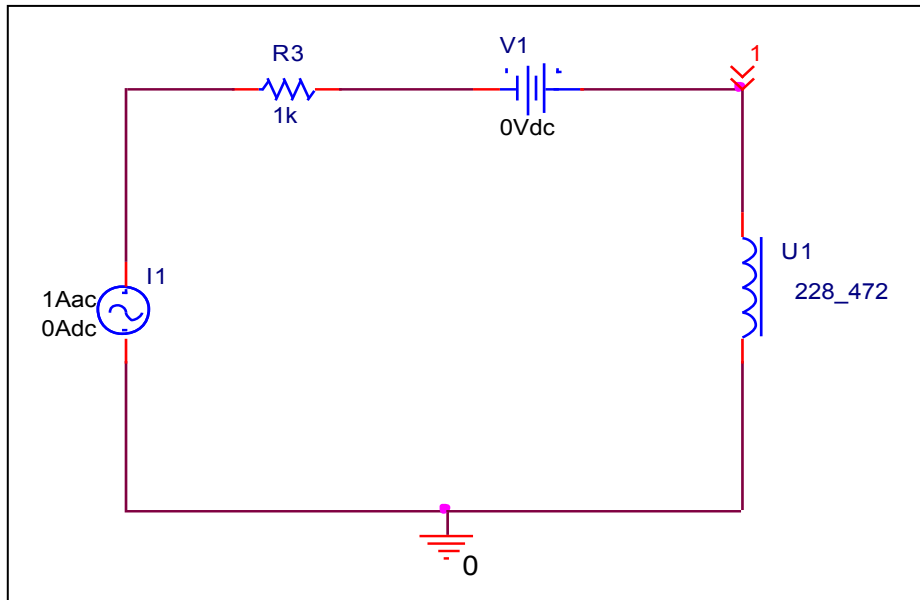
L1	
C1	
R1	

Equivalent circuit

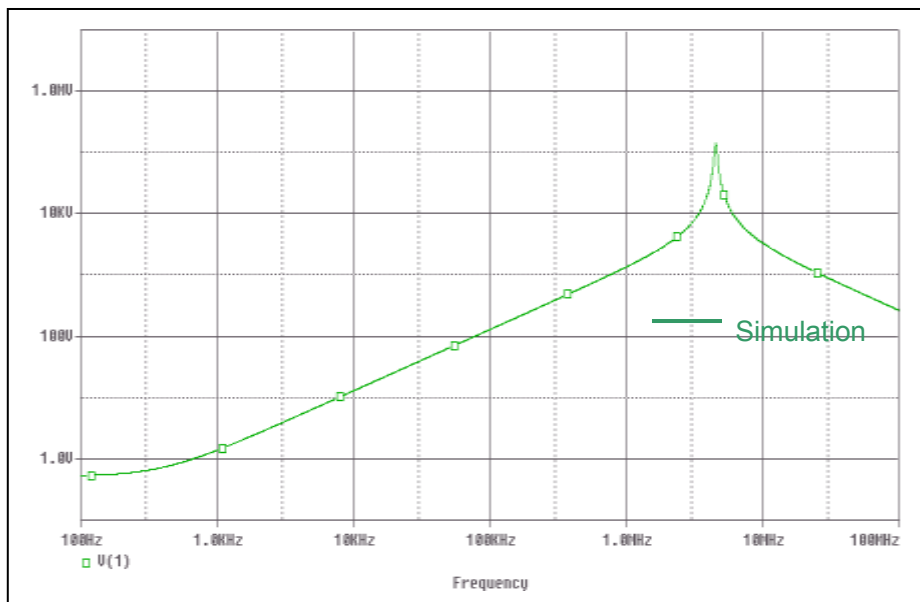


# Frequency vs. |Z| Characteristic

## Evaluation circuit



## Simulation result



Comparison Table

Frequency (Hz)	Z (ohm) : Measurement	Z (ohm) : Simulation	% Error
<b>100</b>	532.413 m	529.996 m	0.454
<b>100K</b>	134.667	128.988	4.217
<b>1M</b>	1.36932 k	1.3557 k	0.995
<b>10M</b>	3.29276 k	3.2966 k	-0.117

	Measurement	Simulation	% Error
<b>F<sub>SRF</sub> (Hz)</b>	4.545 M	4.5101 M	0.768
<b> Z  (ohm), at F<sub>SRF</sub></b>	134.191 k	139.900 k	-4.254