

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ150
THERMAL:TA=120(degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

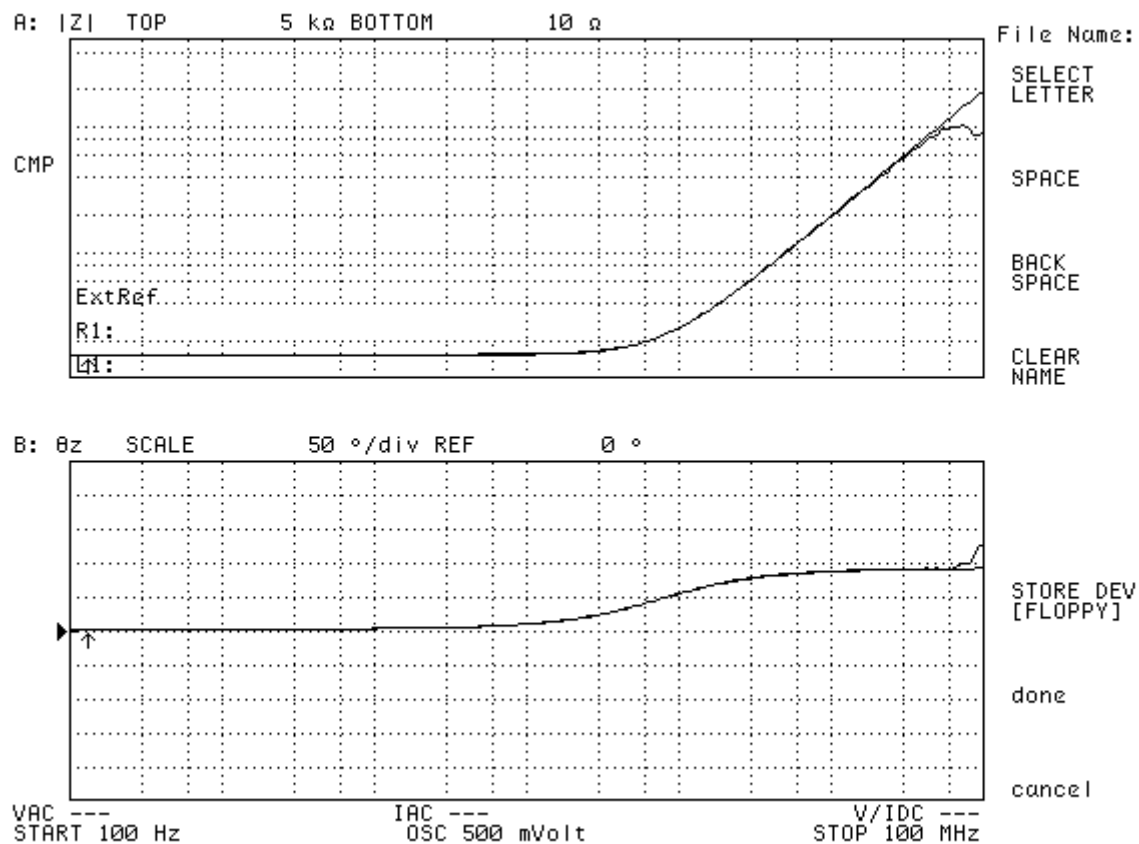
Optimization of Simulation

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

Frequency vs. $|Z|$ and Frequency vs. θ_z Characteristic

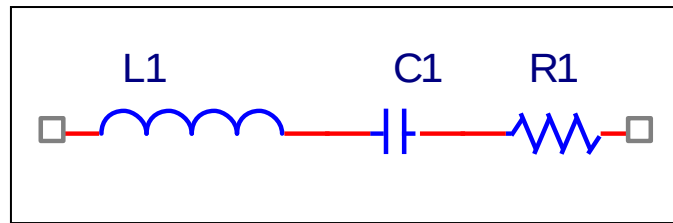
Attention

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



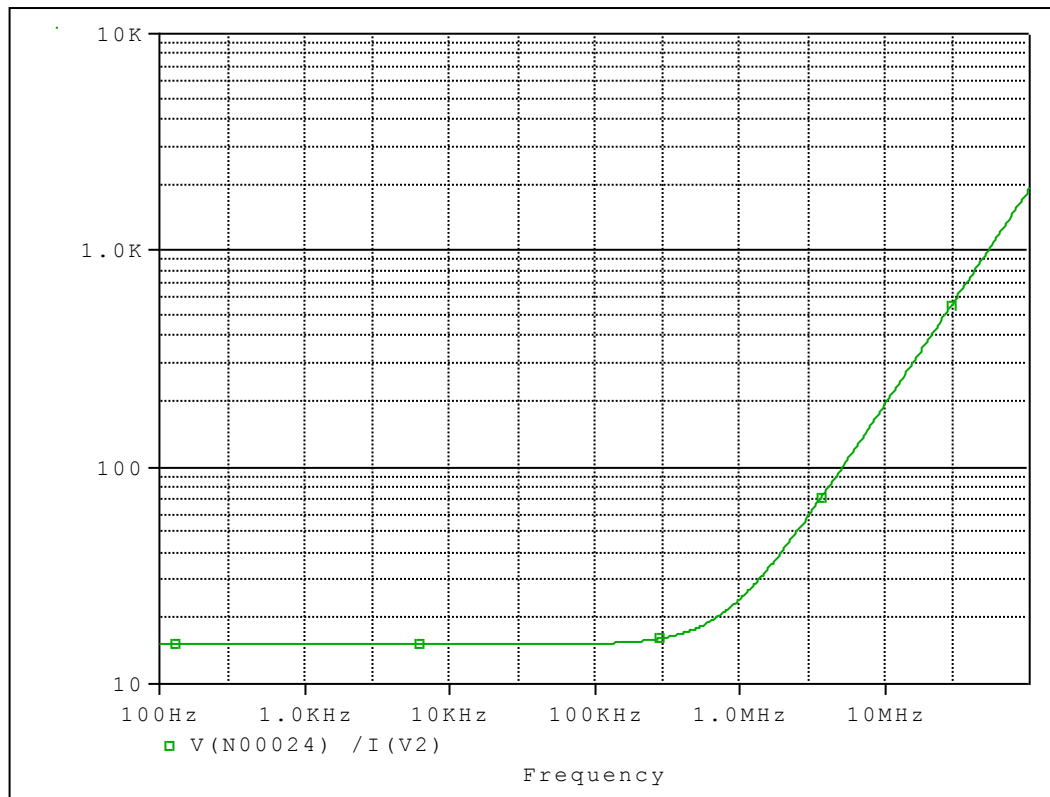
Measurement		
R1		
L1		
C1		

Equivalent circuit

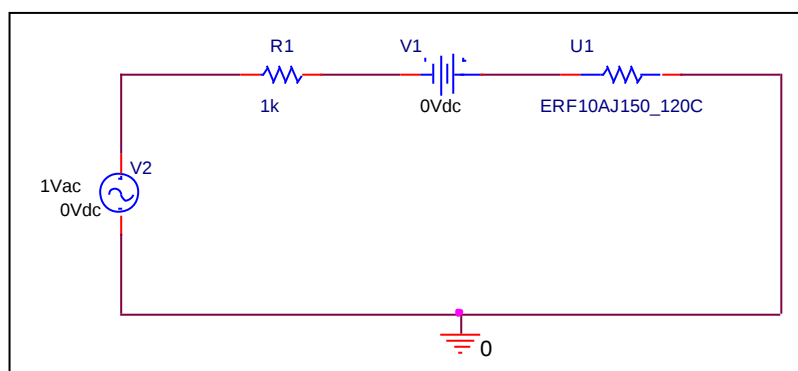


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	15.043	15.249	1.368
1K	15.047	15.233	1.238
10K	15.035	15.234	1.325
100K	15.184	15.355	1.129
1M	25.334	24.598	2.906
10M	181.475	193.731	6.754