

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ471
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

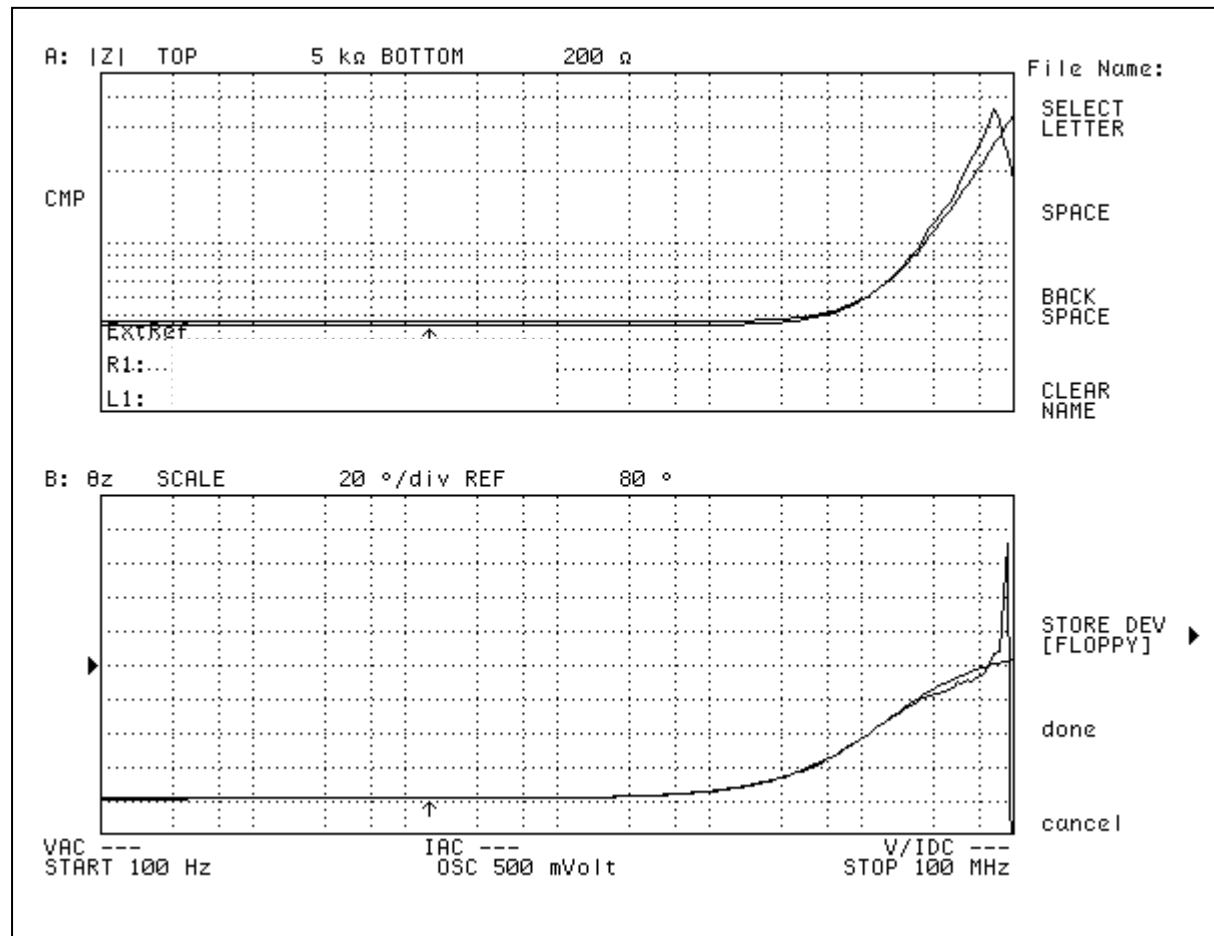
Optimization of Simulation

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

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

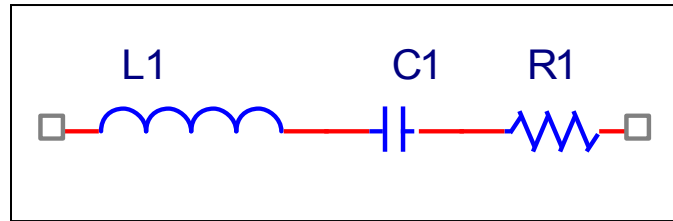
Attention

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



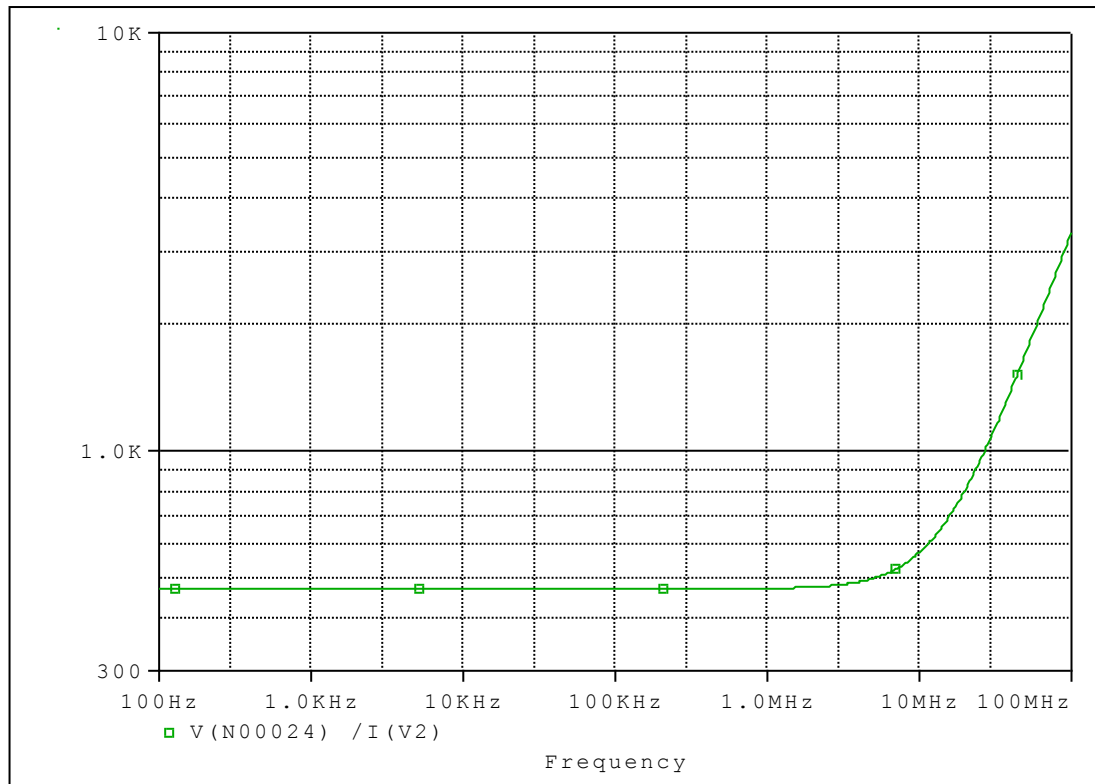
Measurement		
R1		
L1		
C1		

Equivalent circuit

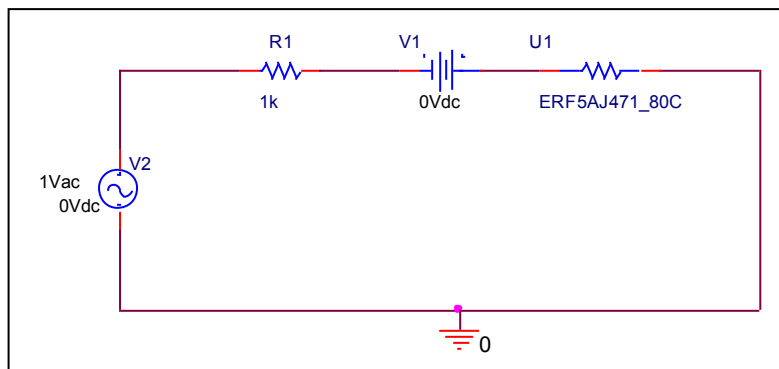


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	452.435	470.886	4.078
1K	452.415	470.851	4.075
10K	452.209	470.851	4.122
100K	452.537	470.863	4.050
1M	454.976	472.088	3.761
10M	577.043	575.164	0.326