

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ510
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

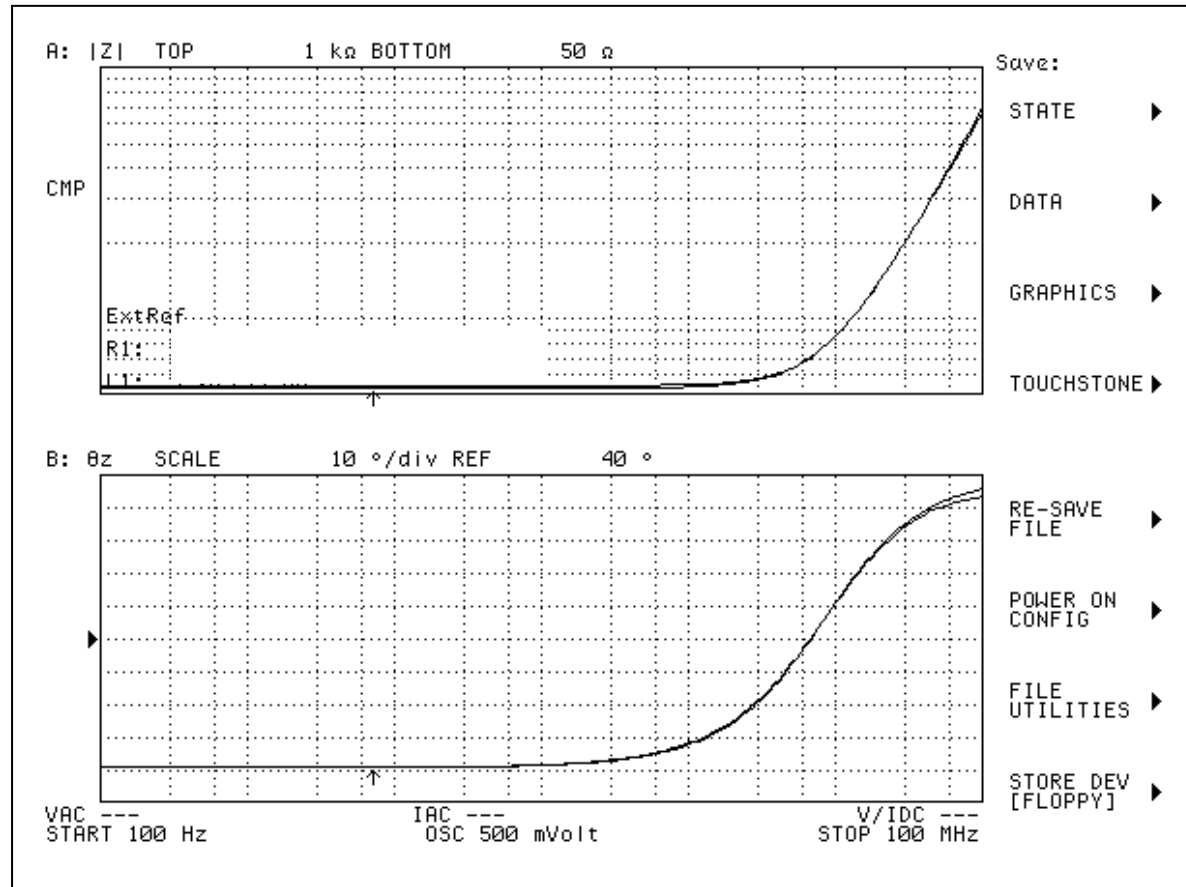
Optimization of Simulation

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

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

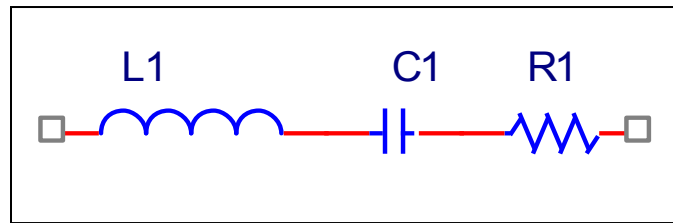
Attention

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



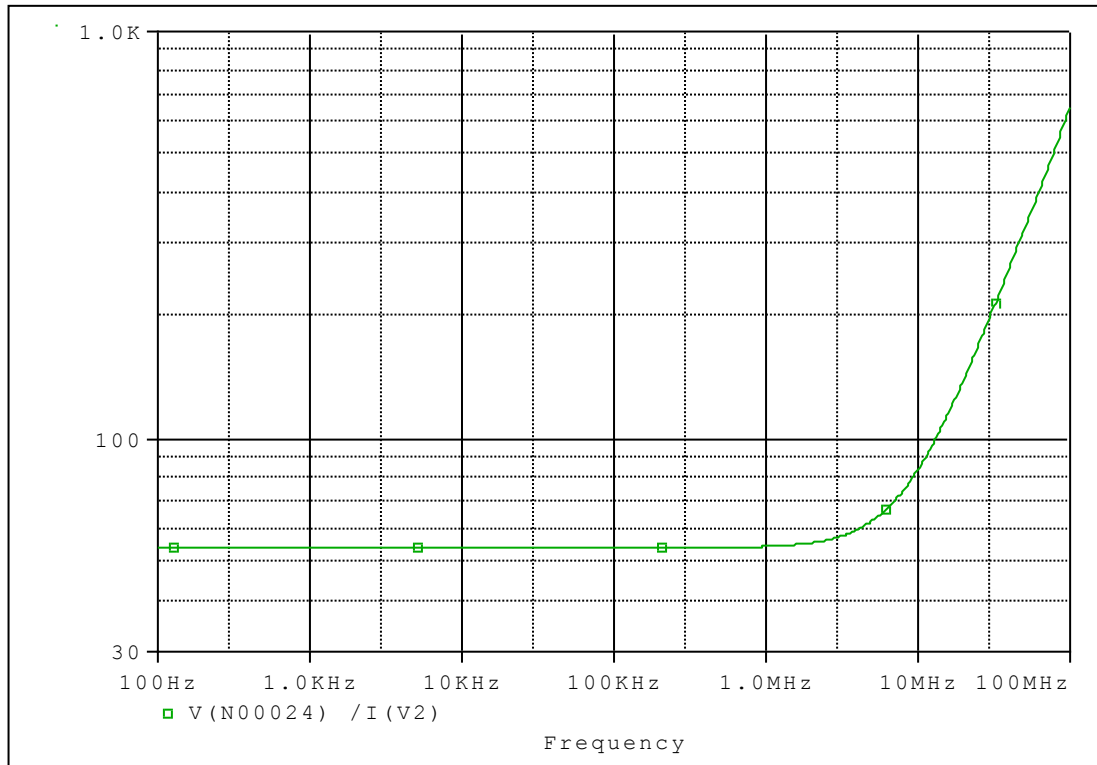
Measurement		
R1		
L1		
C1		

Equivalent circuit

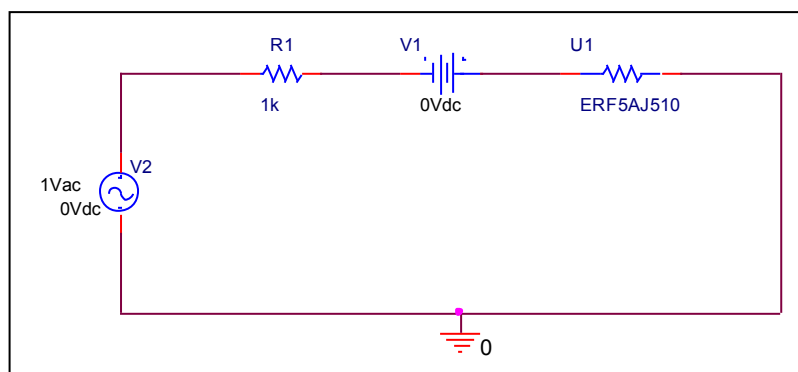


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	52.566	53.990	2.709
1K	52.591	53.990	2.660
10K	52.569	53.990	2.703
100K	52.591	53.994	2.668
1M	53.226	54.375	2.159
10M	84.199	84.161	0.045
100M	685.493	647.870	5.488