

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ330
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

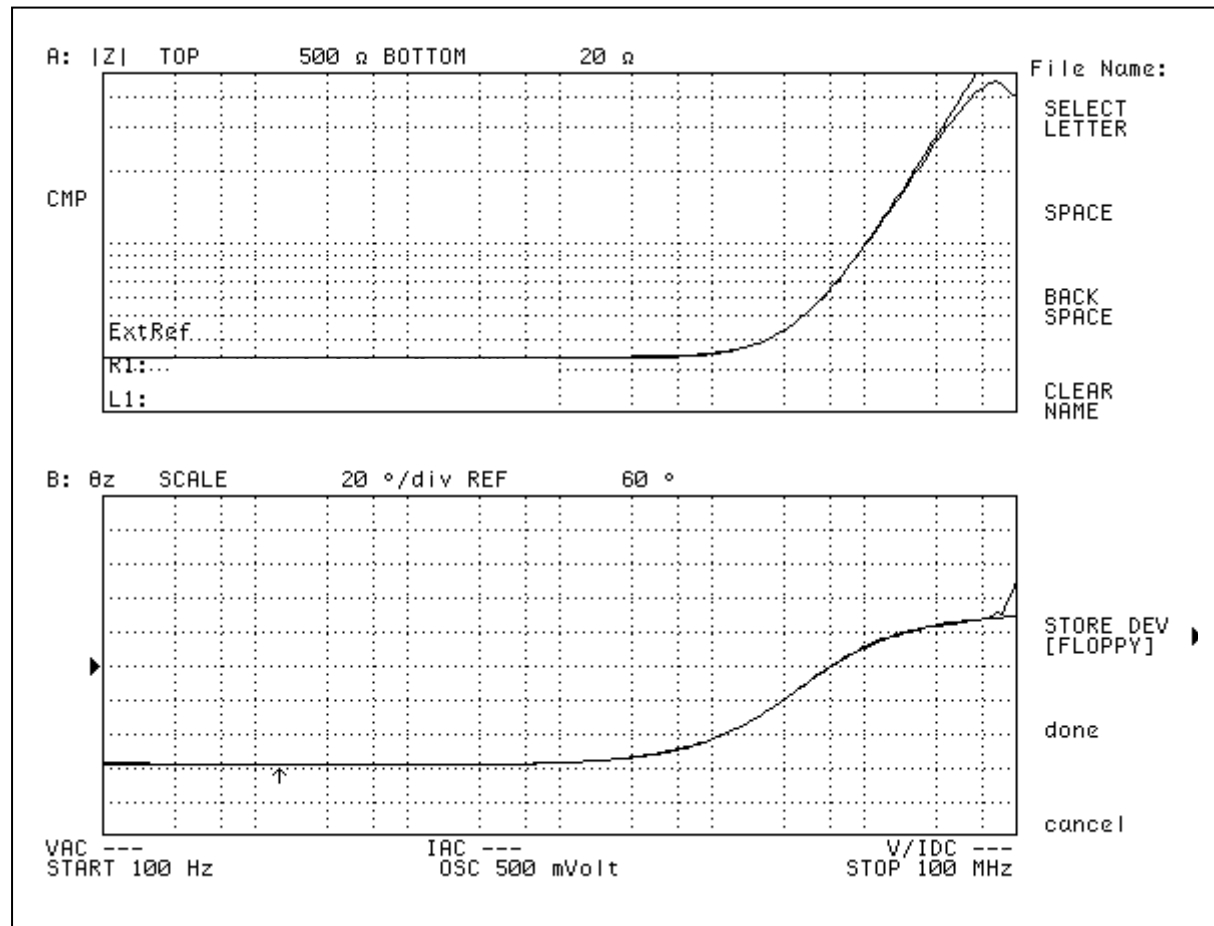
Optimization of Simulation

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

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

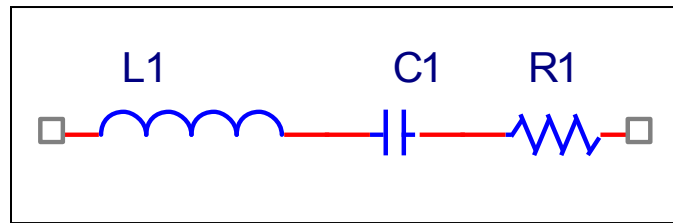
Attention

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



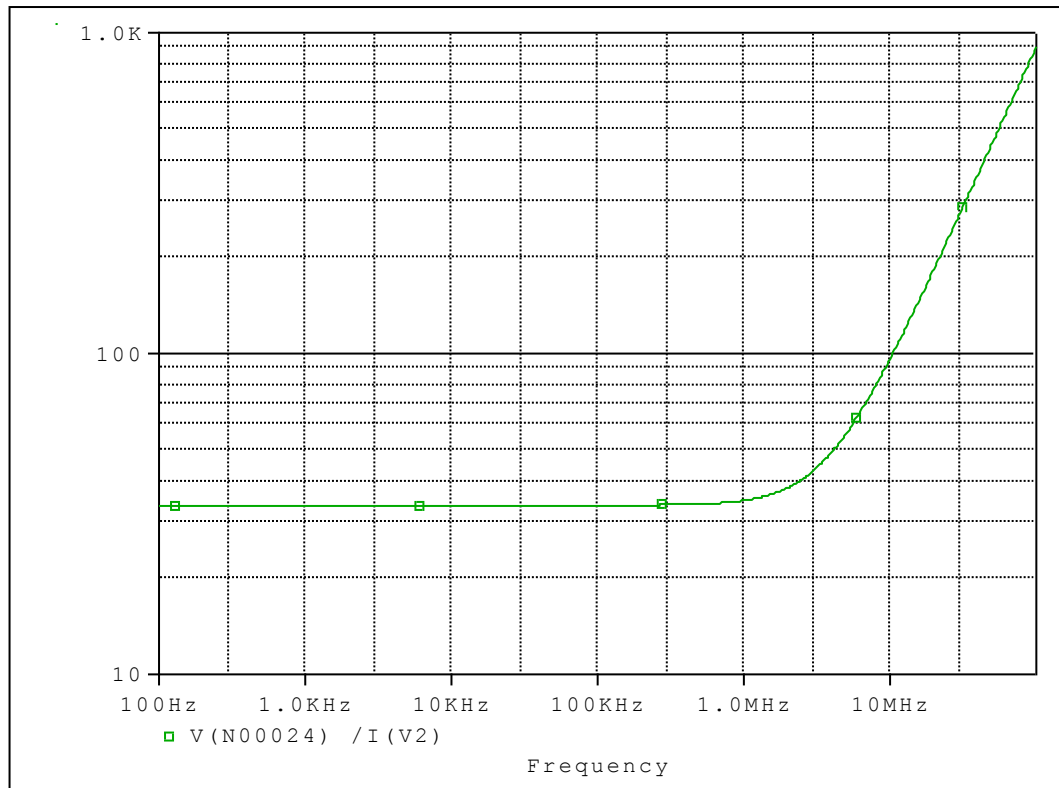
Measurement		
R1		
L1		
C1		

Equivalent circuit

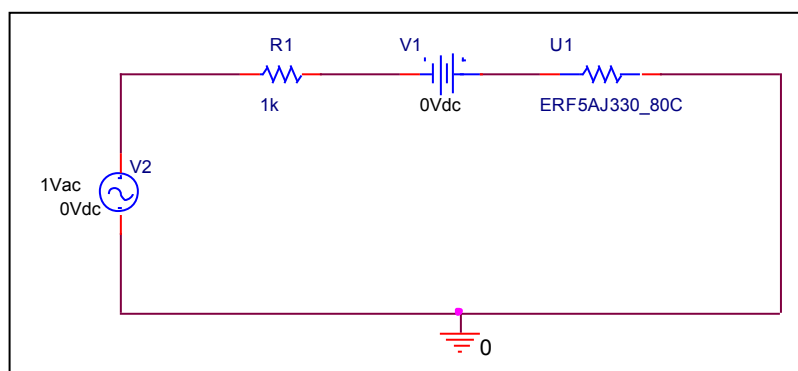


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	33.243	33.678	1.308
1K	33.260	33.652	1.178
10K	33.249	33.652	1.212
100K	33.262	33.664	1.209
1M	34.808	34.843	0.099
10M	97.011	96.372	0.659