

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: GPR Series
MANUFACTURER: NATAI
THERMAL: Ta= 60C (degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

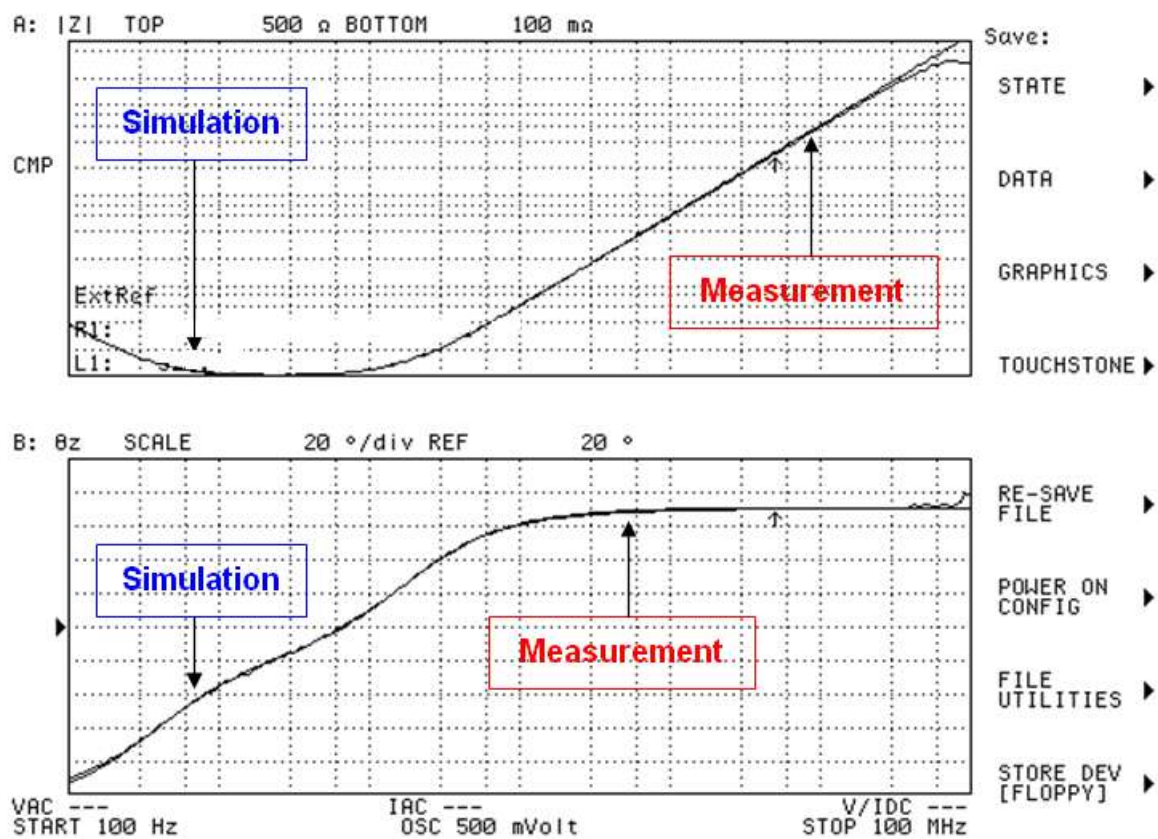
Optimization of Simulation

Range of adjustment Frequency: 100 Hz to 100 MHz

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

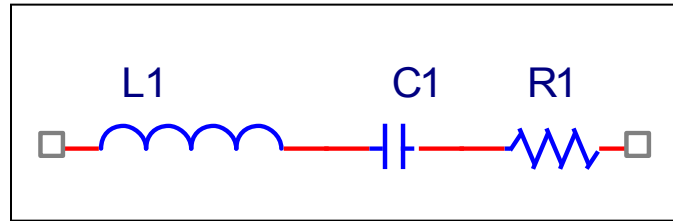
Attention)

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



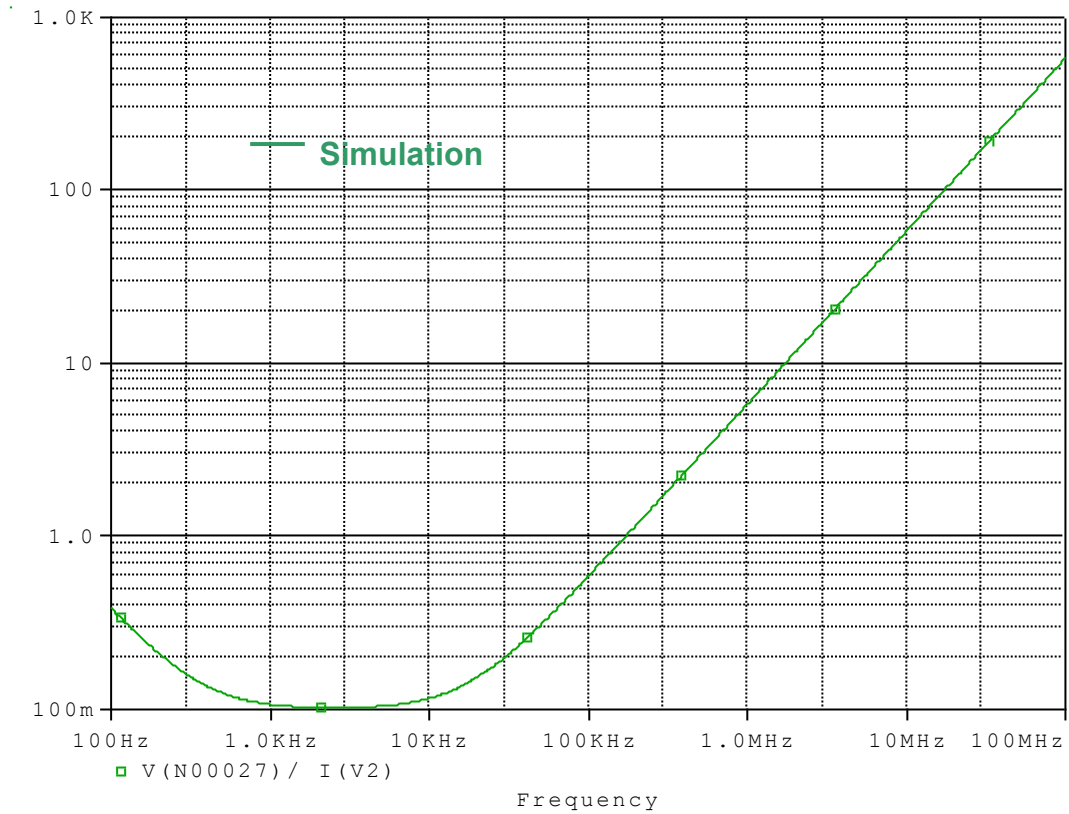
	Measurement	
R1		
C1		
L1		

Equivalent circuit

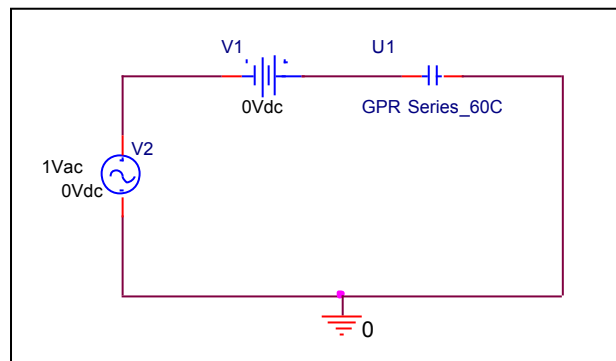


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	Z (Ω)		% Error
	Measurement	Simulation	
100	377.619m	384.738m	1.885
1K	106.330m	107.033m	0.661
10K	117.428m	115.897m	- 1.304
100K	585.384m	589.232m	0.657
1M	5.884	5.807	- 1.305
10M	56.167	58.065	3.380