

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS152ME
MANUFACTURER: PANASONIC
REMARK: TA=60C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

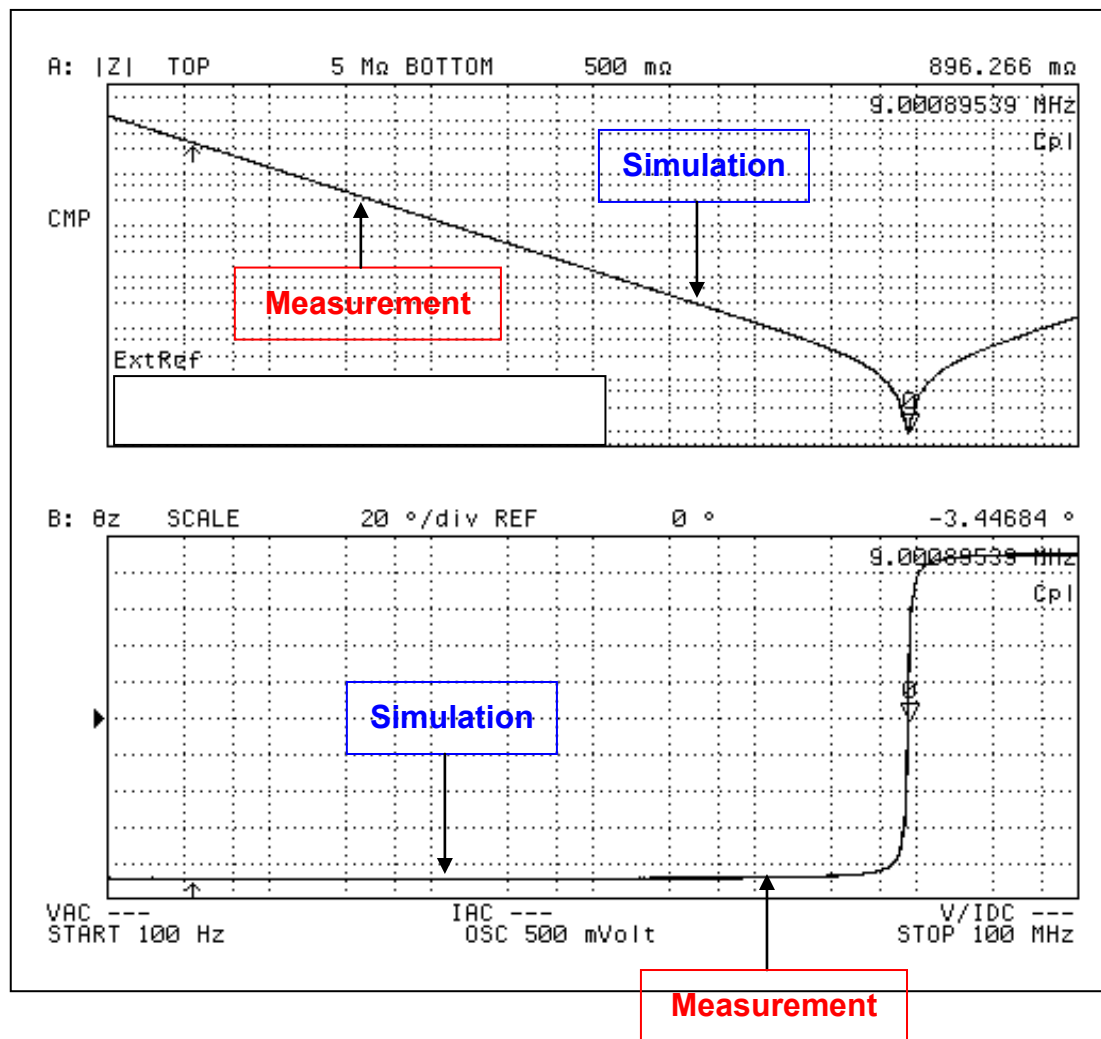
Optimization of Simulation

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

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

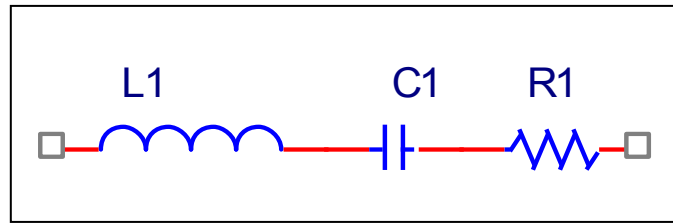
Attention)

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



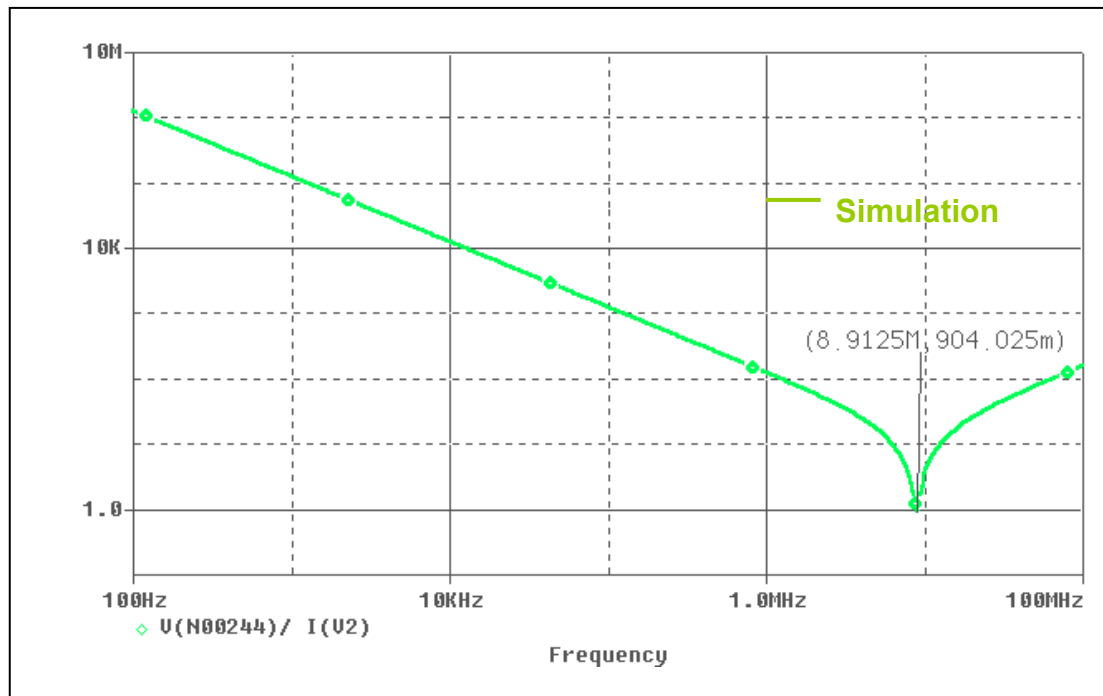
L1	
C1	
R1	

Equivalent circuit

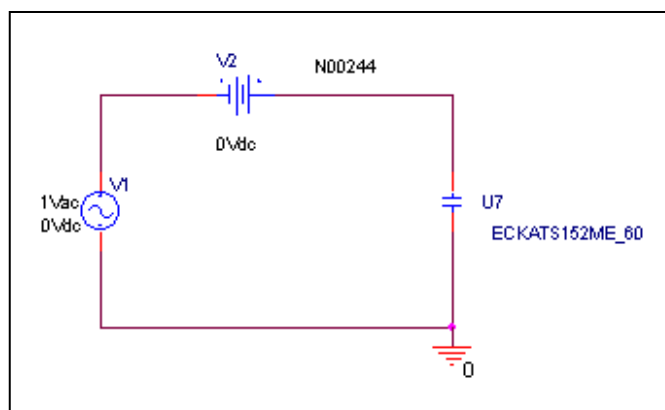


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	1.25281M	1.269M	1.2923
1K	126.129K	125.374K	0.5986
10K	12.6606K	12.689K	0.2243
100K	1.27096K	1.2536K	1.3659
1M	126.6	125.309	1.0197
10M	3.07997	3.1507	2.2965
100M	152.92	157.662	3.1010

	Measurement	Simulation	%Error
FSRF(Hz)	9.000M	8.9125M	0.9722
IZI (ohm)	901.42	904.025	0.2890