

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS152ME
MANUFACTURER: PANASONIC
REMARK: TA=80C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

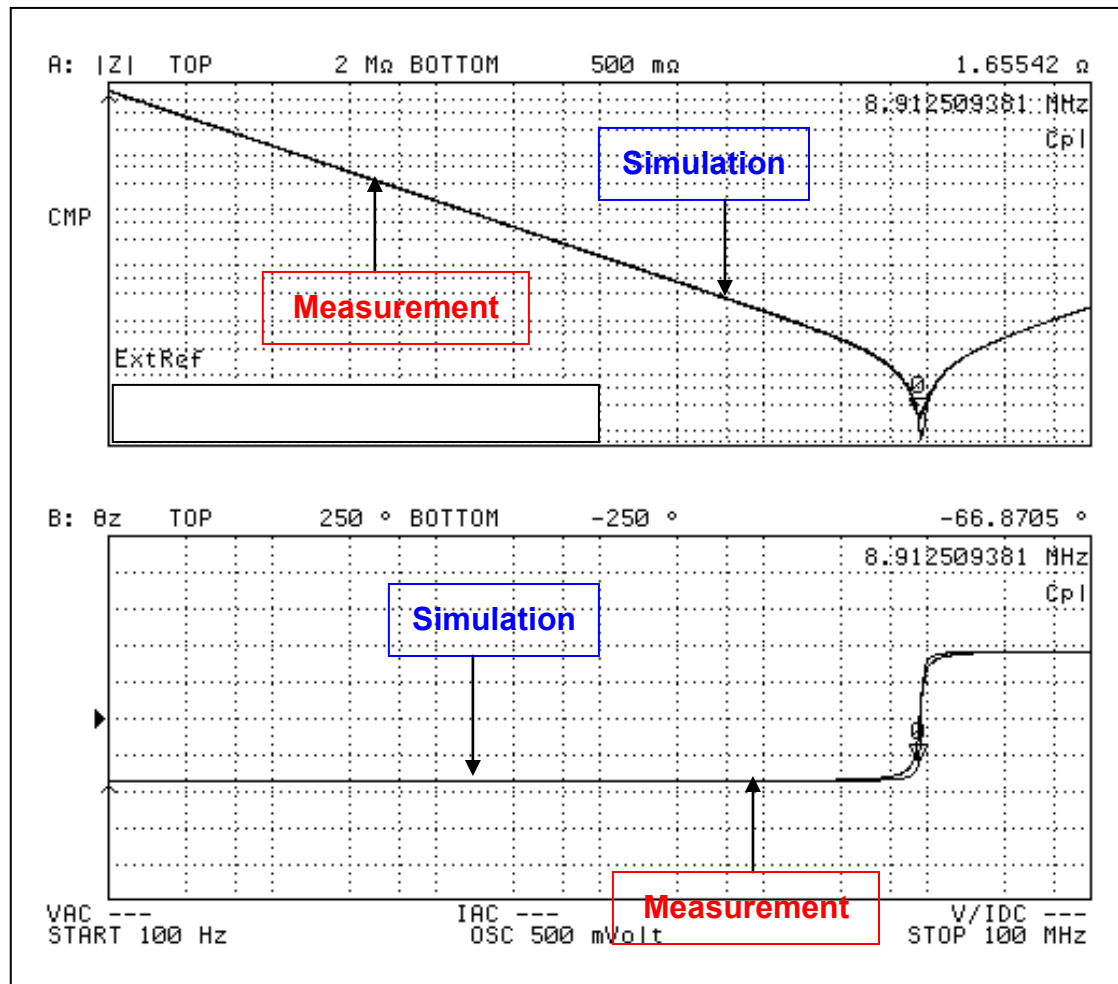
Optimization of Simulation

Range of adjustment Frequency:100Hz to100M(Hz)

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

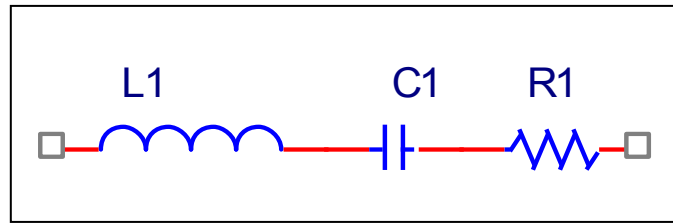
Attention)

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



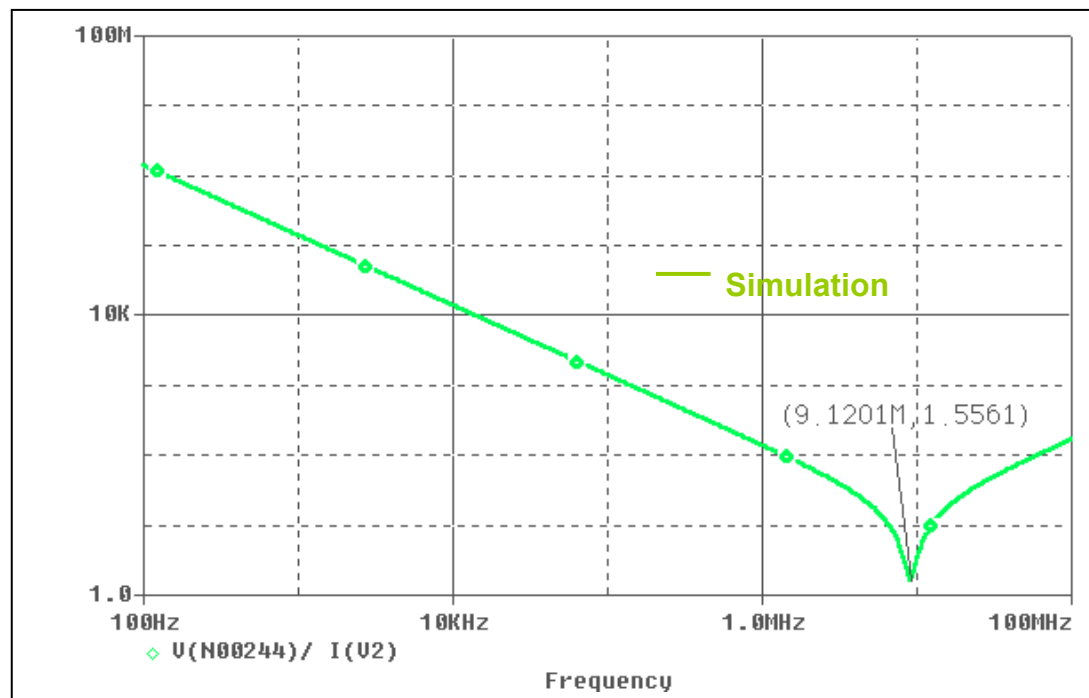
L1	
C1	
R1	

Equivalent circuit

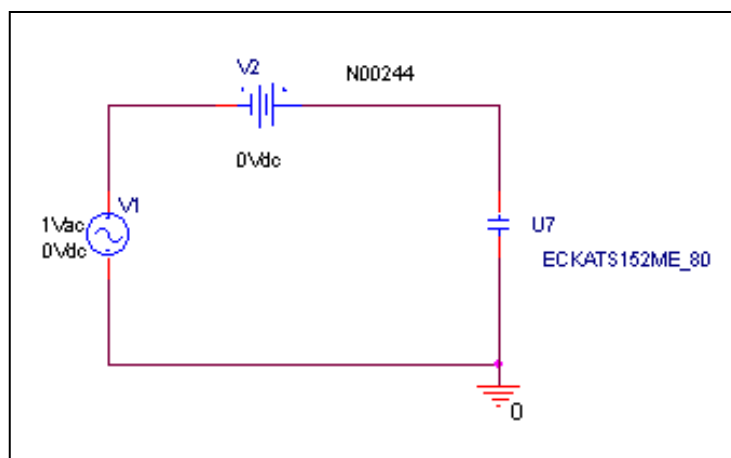


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	1.46989M	1.4066M	4.3058
1K	146.196K	140.656K	3.7894
10K	14.6554K	14.066K	4.0217
100K	1.46954K	1.4064K	4.2966
1M	145.972	138.982	4.7886
10M	2.16205	3.0377	40.5009
100M	159.395	166.910	4.7147

	Measurement	Simulation	%Error
FSRF(Hz)	8.9125M	9.1201M	2.3293
IZI (ohm)	1.6089	1.5561	3.2817