

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS102ME
MANUFACTURER: PANASONIC
REMARK: TA=40C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

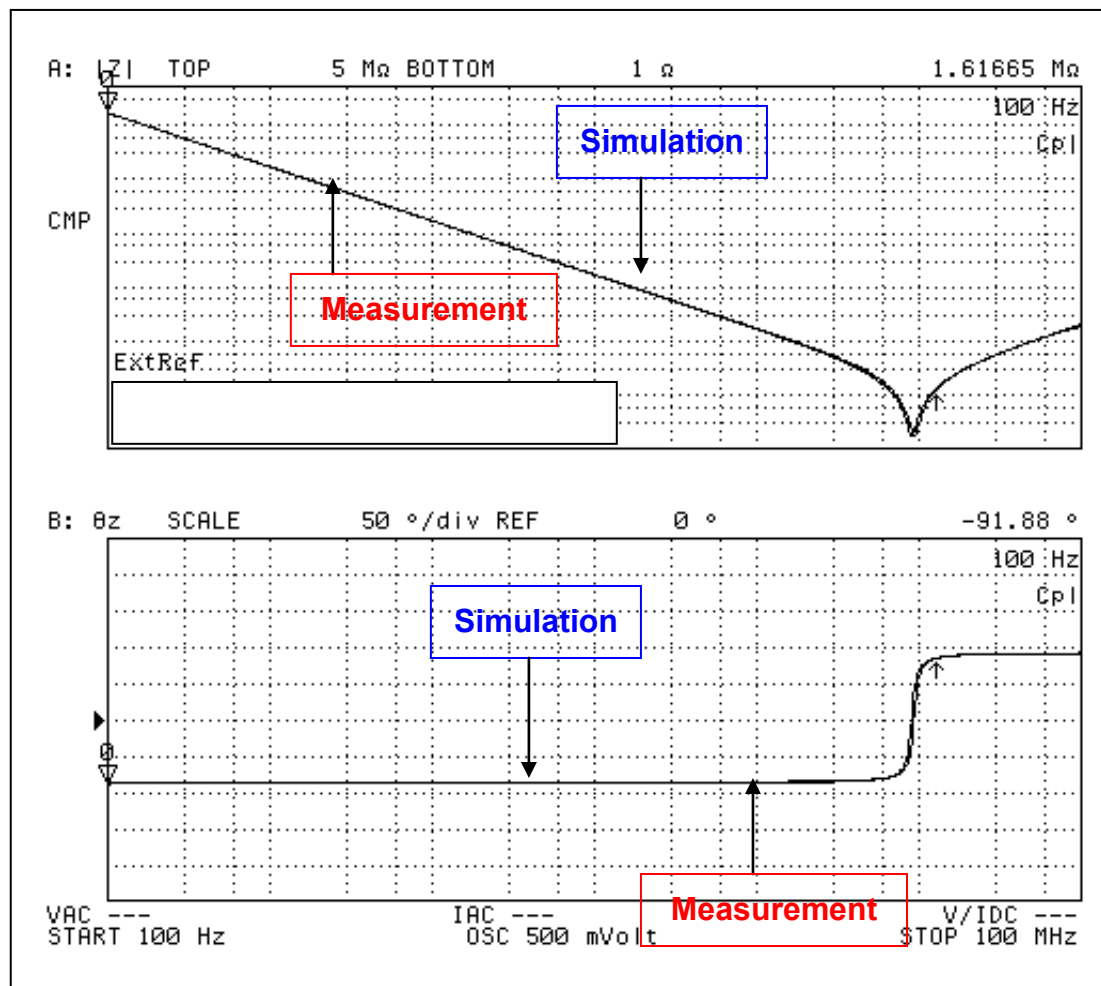
Optimization of Simulation

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

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

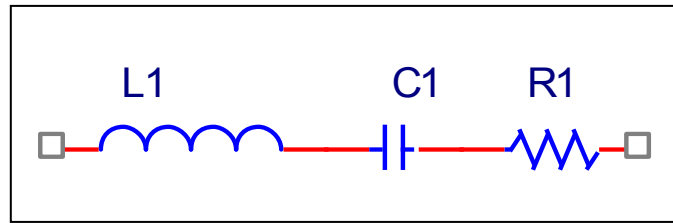
Attention)

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



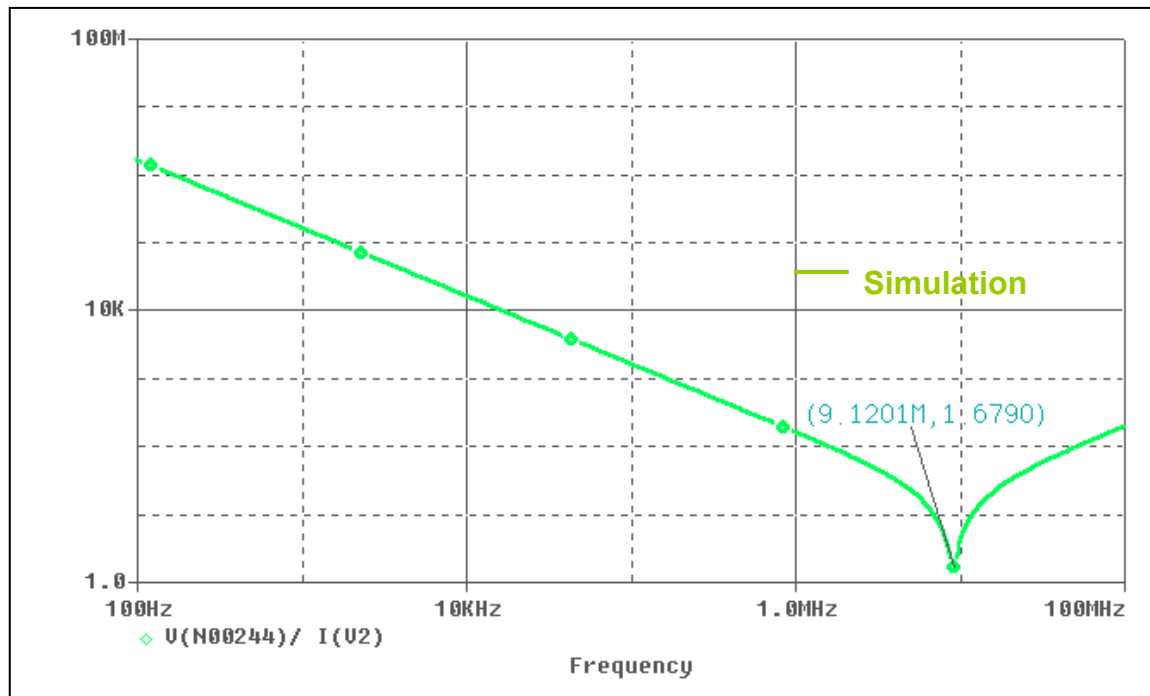
L1	
C1	
R1	

Equivalent circuit

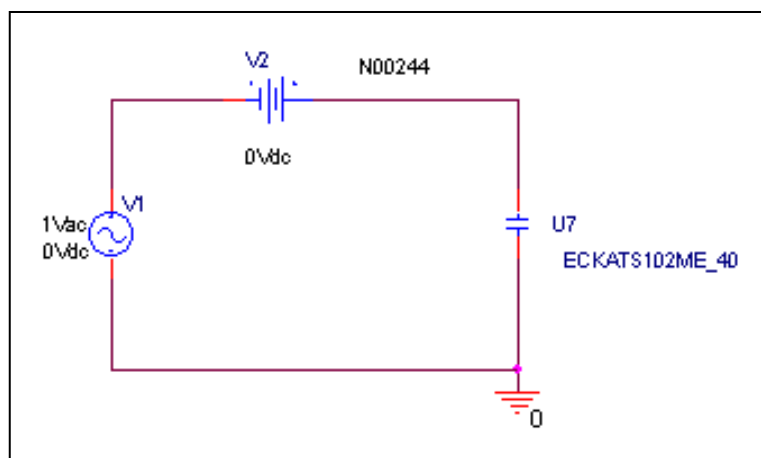


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	1.61682M	1.6488M	1.9780
1K	165.257K	162.900K	1.4263
10K	16.6242K	16.488K	0.8193
100K	1.67577K	1.6288K	2.8029
1M	168.714	162.909	3.4407
10M	2.71631	3.4146	25.7073
100M	182.336	195.936	7.4588

	Measurement	Simulation	%Error
FSRF(Hz)	9.4254M	9.1201M	3.2391
IZI (ohm)	1.67557	1.679	0.2047