

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS222ME
MANUFACTURER: PANASONIC
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

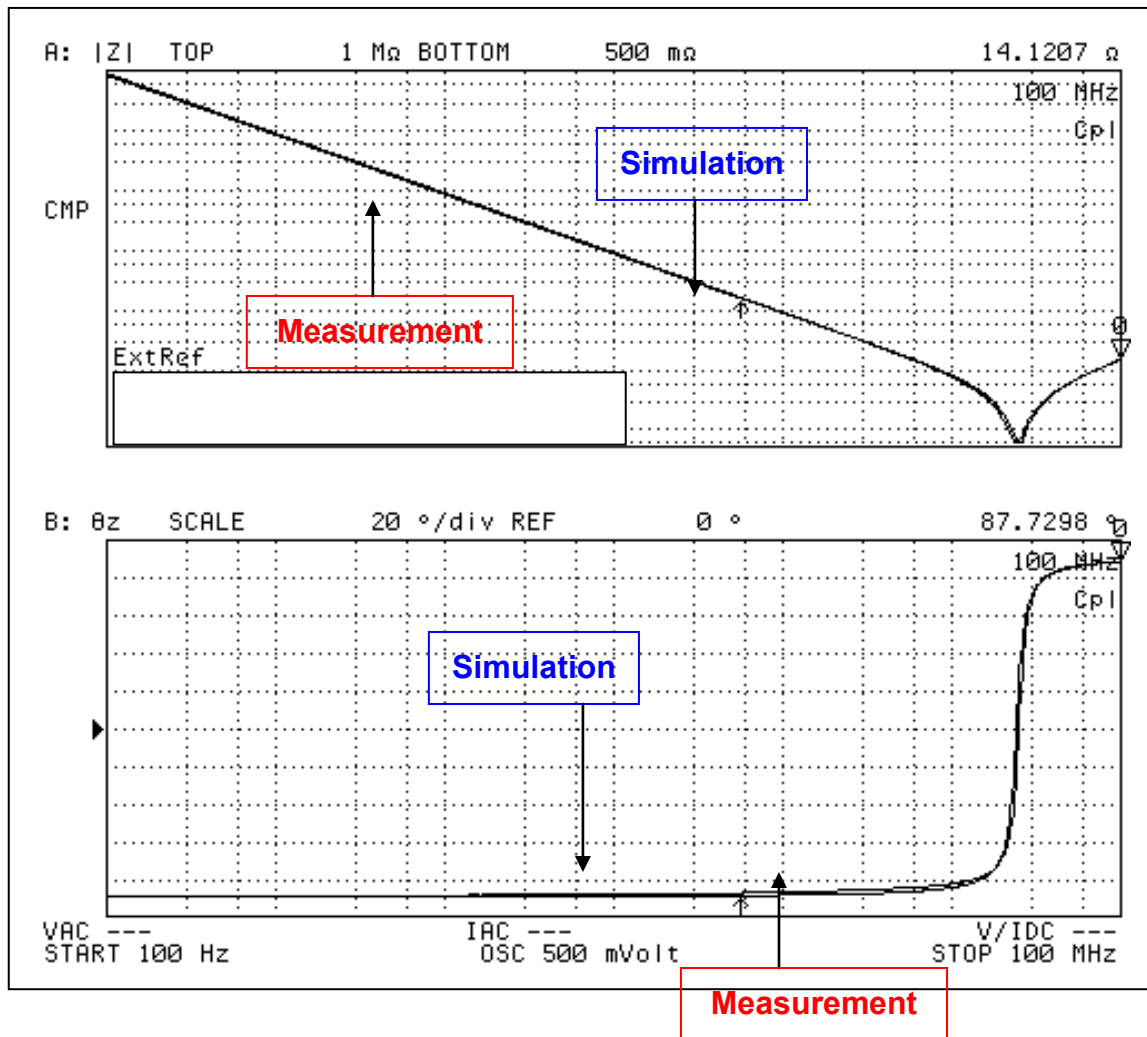
Optimization of Simulation

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

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

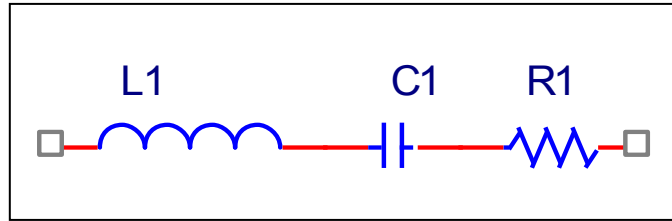
Attention)

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



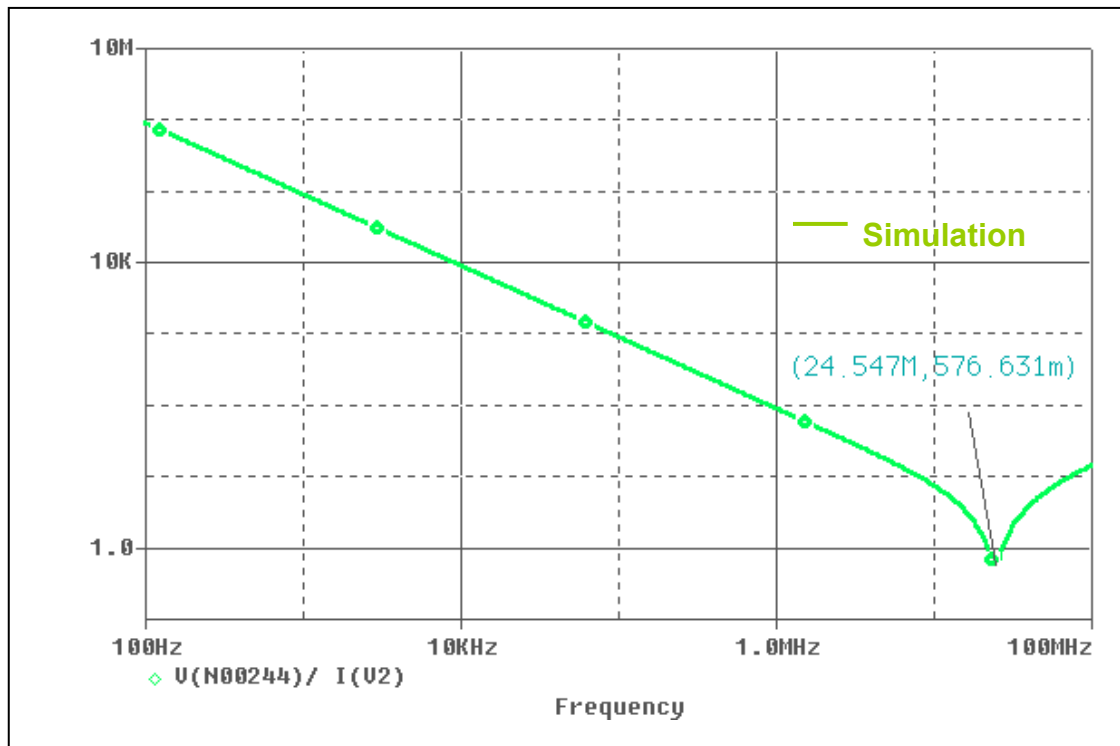
L1	
C1	
R1	

Equivalent circuit

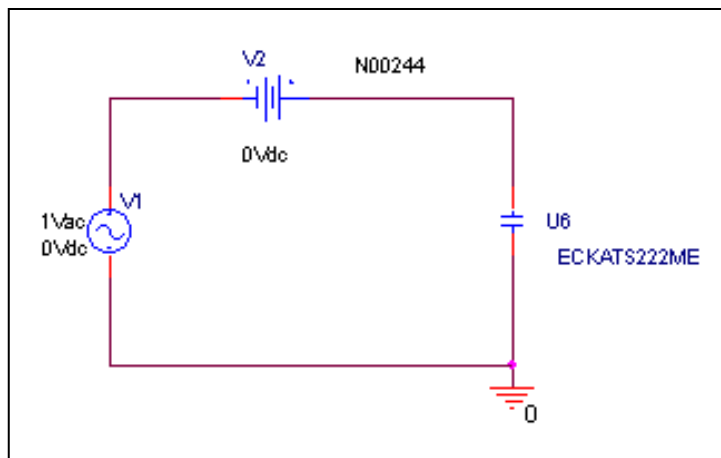


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	845.4654K	902.034K	6.6908
1K	85.0255K	90.203K	6.0893
10K	8.55299K	9.023K	5.4953
100K	864.18	902.019	4.3786
1M	88.5019	90.055	1.7549
10M	7.97249	7.5351	5.4862
100M	14.1207	14.183	0.4412

	Measurement	Simulation	%Error
FSRF(Hz)	25.556M	24.547M	3.9482
IZI (ohm)	579.595m	576.631m	0.5114