

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS222ME
MANUFACTURER: PANASONIC
REMARK: TA=60C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

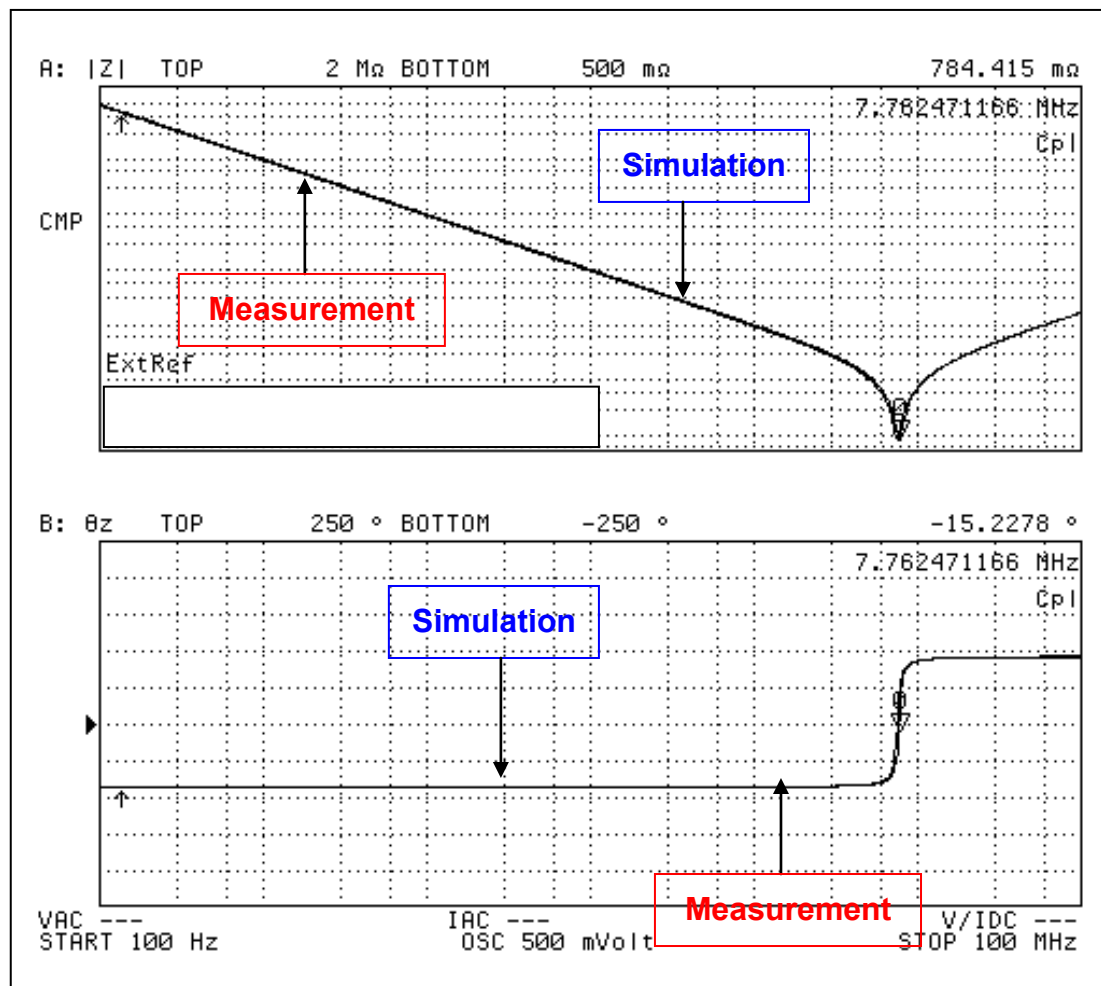
Optimization of Simulation

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)



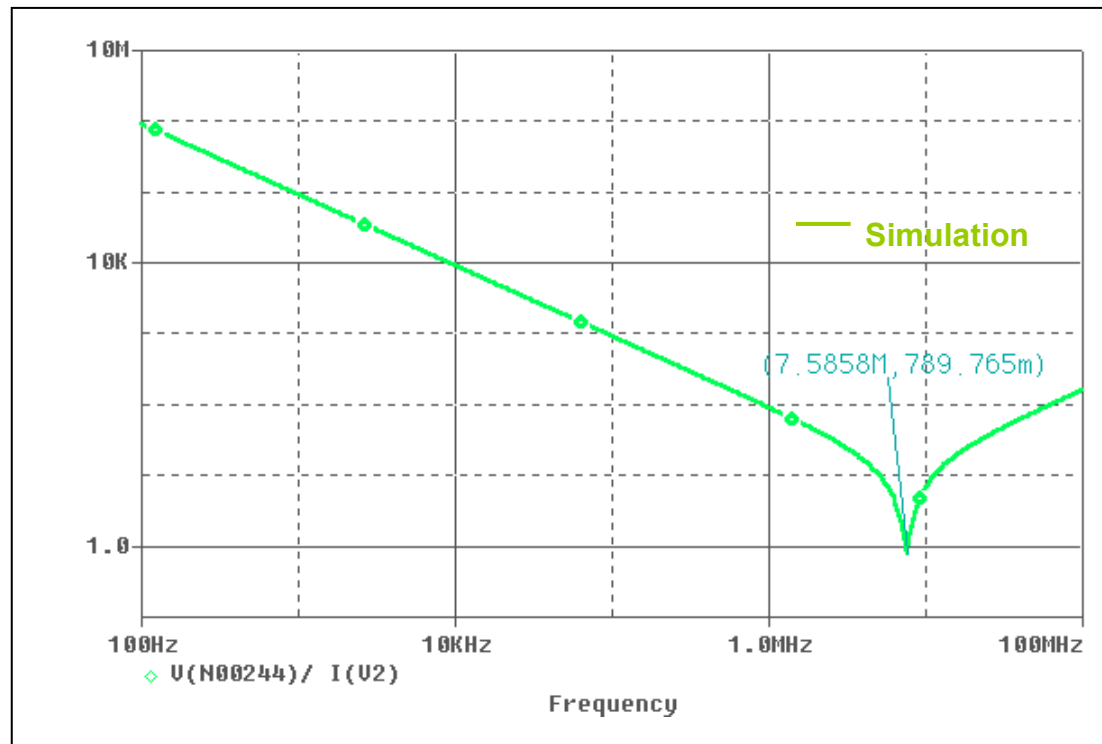
L1	
C1	
R1	

Equivalent circuit

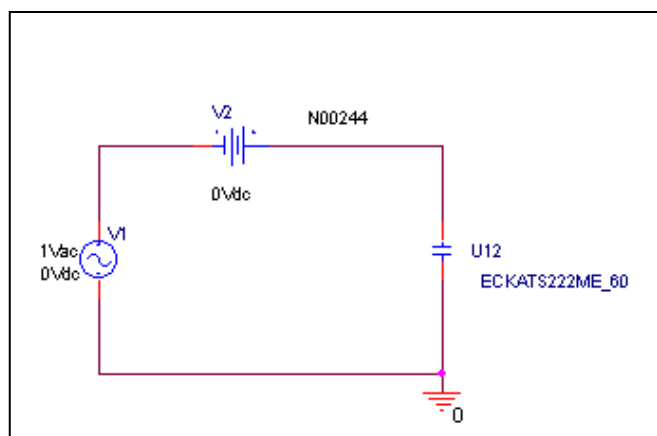


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	972.068K	924.062K	4.9385
1K	97.547K	92.406K	5.2703
10K	9.78558K	9.2406K	5.5692
100K	983.046	923.903	6.0163
1M	97.5241	90.817	6.8774
10M	6.638644	6.7386	1.5057
100M	154.069	158.301	2.7468

	Measurement	Simulation	%Error
FSRF(Hz)	7.76247M	7.5858M	2.2760
IZI (ohm)	784.415m	789.765m	0.6820