Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKATS103ME
MANUFACTURER: PANASONIC
REMARK: TA=40C

Bee Technologies Inc.

Theory: Auto Balancing Bridge Method
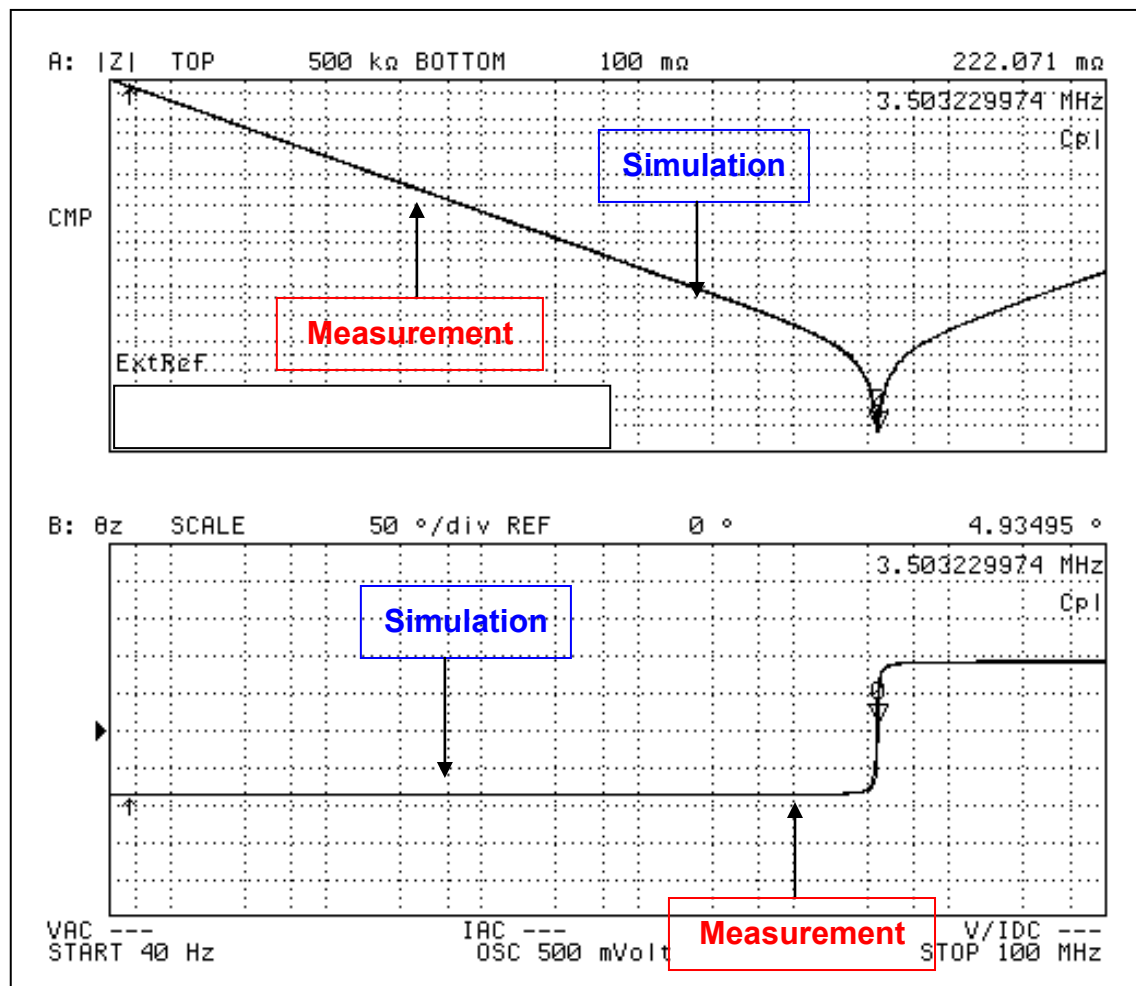
Optimization of Simulation
Range of adjustment Frequency:100Hz to100M(Hz)
Frequency vs.|Z| and Frequency vs. θz Characteristic

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

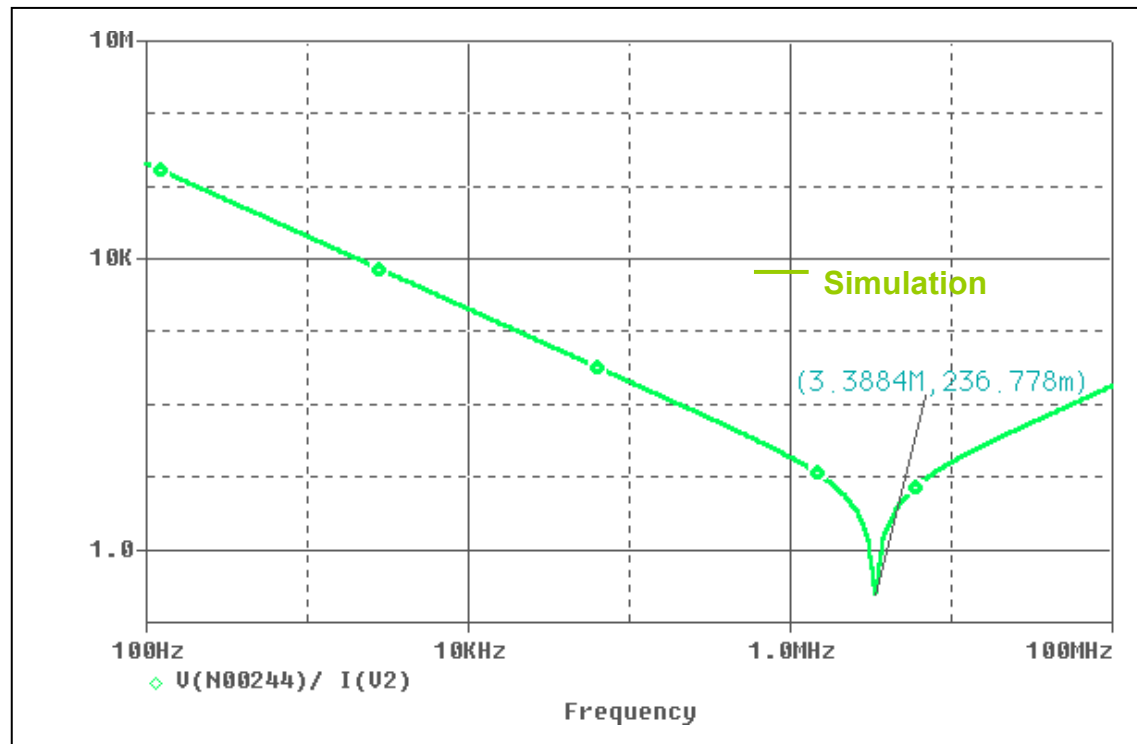| L1	
C1	
R1	

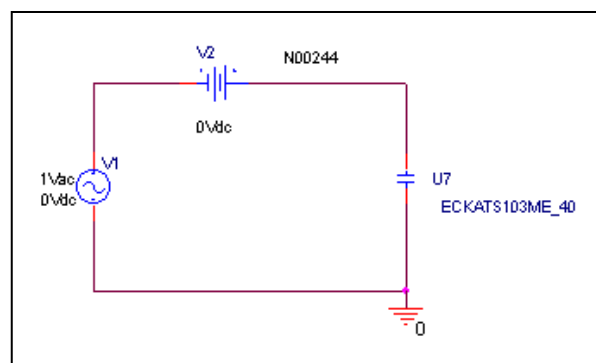Equivalent circuit

L1   C1   R1

Frequency vs. IZI Characteristic

Circuit Simulation result

Evaluation Circuit

Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	204.46K	204.598K	0.0675
1K	20.7054K	20.460K	1.1852
10K	2.08272K	2.0460K	1.7631
100K	208.952	204.423	2.1675
1M	19.4957	18.706	4.0506
10M	15.3727	15.504	0.8541
100M	165.709	175.283	5.7776

	Measurement	Simulation	%Error
FSRF(Hz)	3.503229M	3.3884M	3.2778
IZI (ohm)	231.018m	236.778m	2.4933