Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKATS103ME
MANUFACTURER: PANASONIC
REMARK: TA=25C

Bee Technologies Inc.

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Theory: Auto Balancing Bridge Method

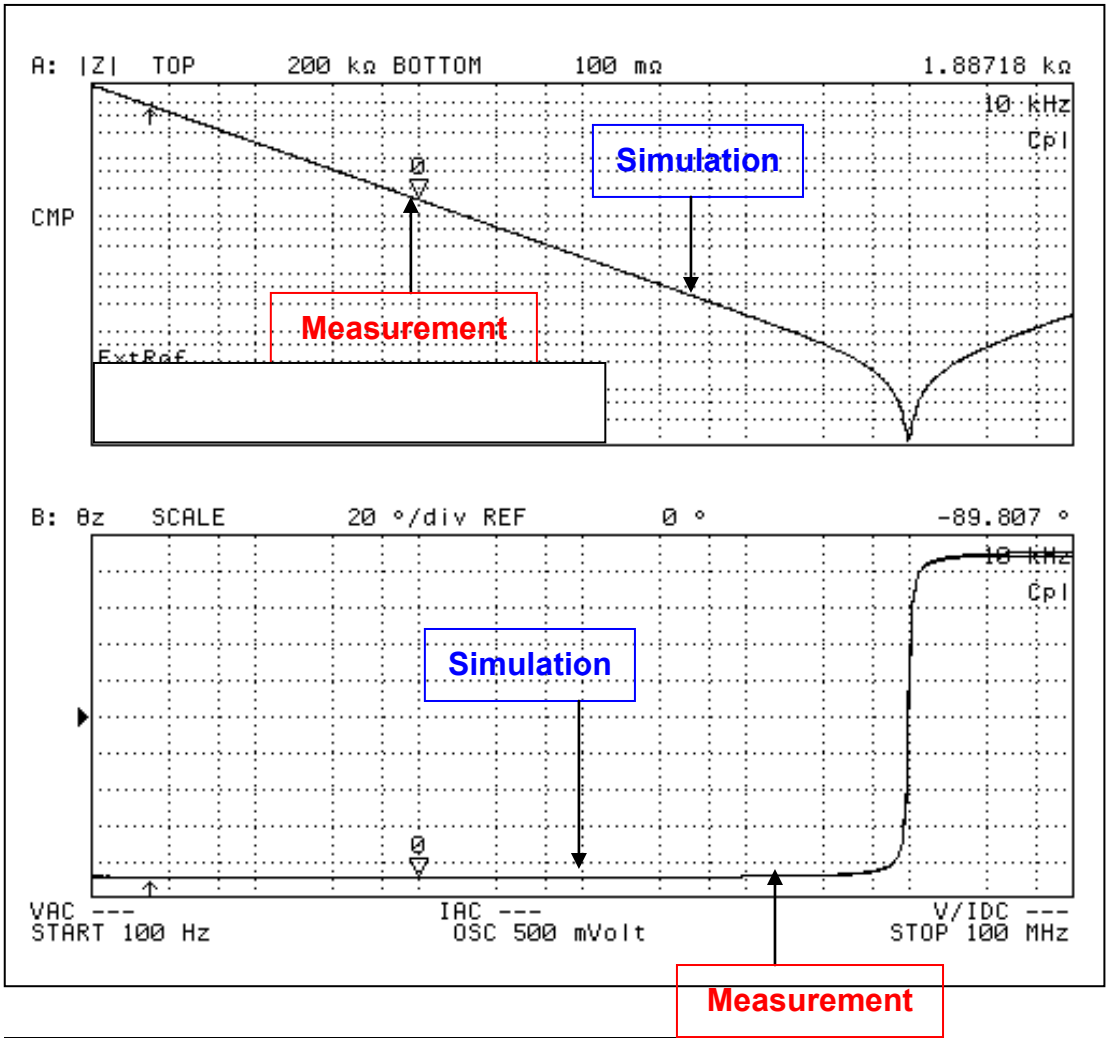
Optimization of Simulation

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	

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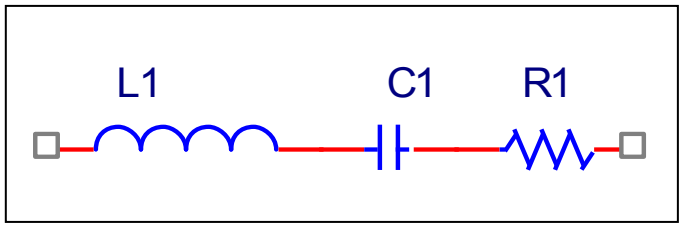
Equivalent circuit



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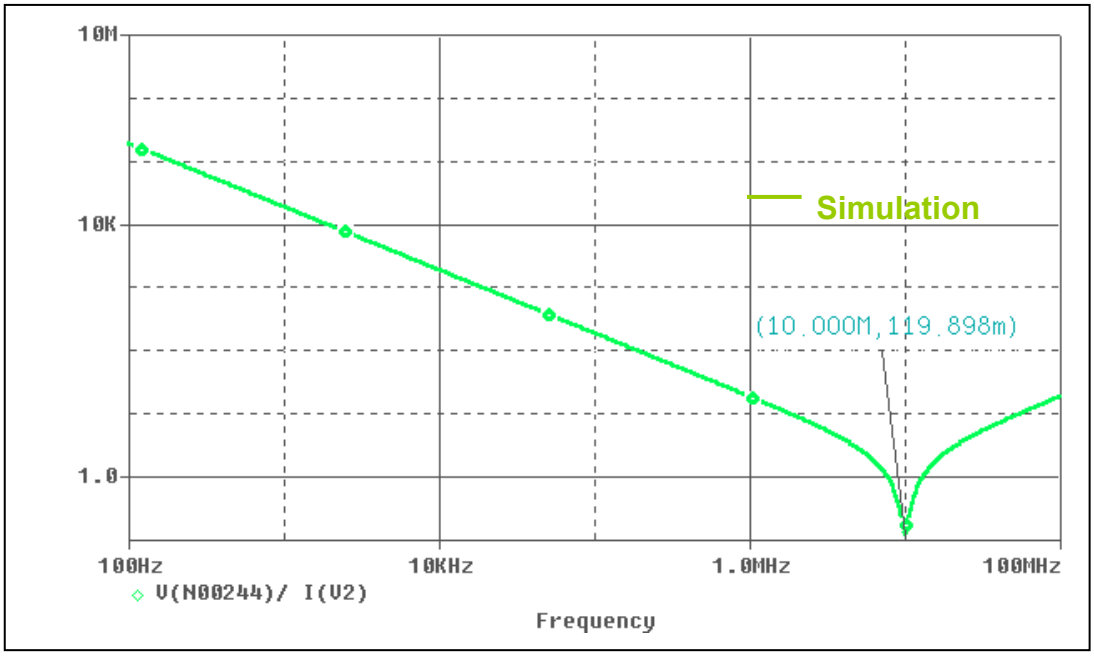
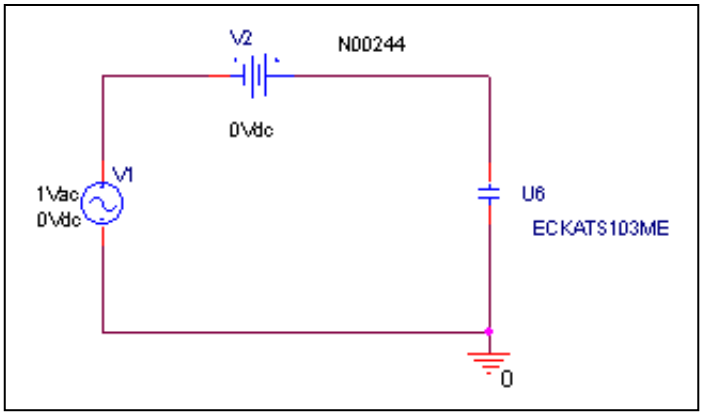
Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



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Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	185.992K	189.818K	2.0571
1K	18.7469K	18.982K	1.2541
10K	1.88536K	1.8982K	0.6810
100K	189.301	189.799	0.2631
1M	18.82	18.793	0.1435
10M	126.725m	120.007m	5.3012
100M	18.3146	18.742	2.3337

	Measurement	Simulation	%Error
FSRF(Hz)	9.93442M	10.000M	0.6601
IZI (ohm)	118.827m	119.898m	0.9013

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