

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS101MB
MANUFACTURER: PANASONIC
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

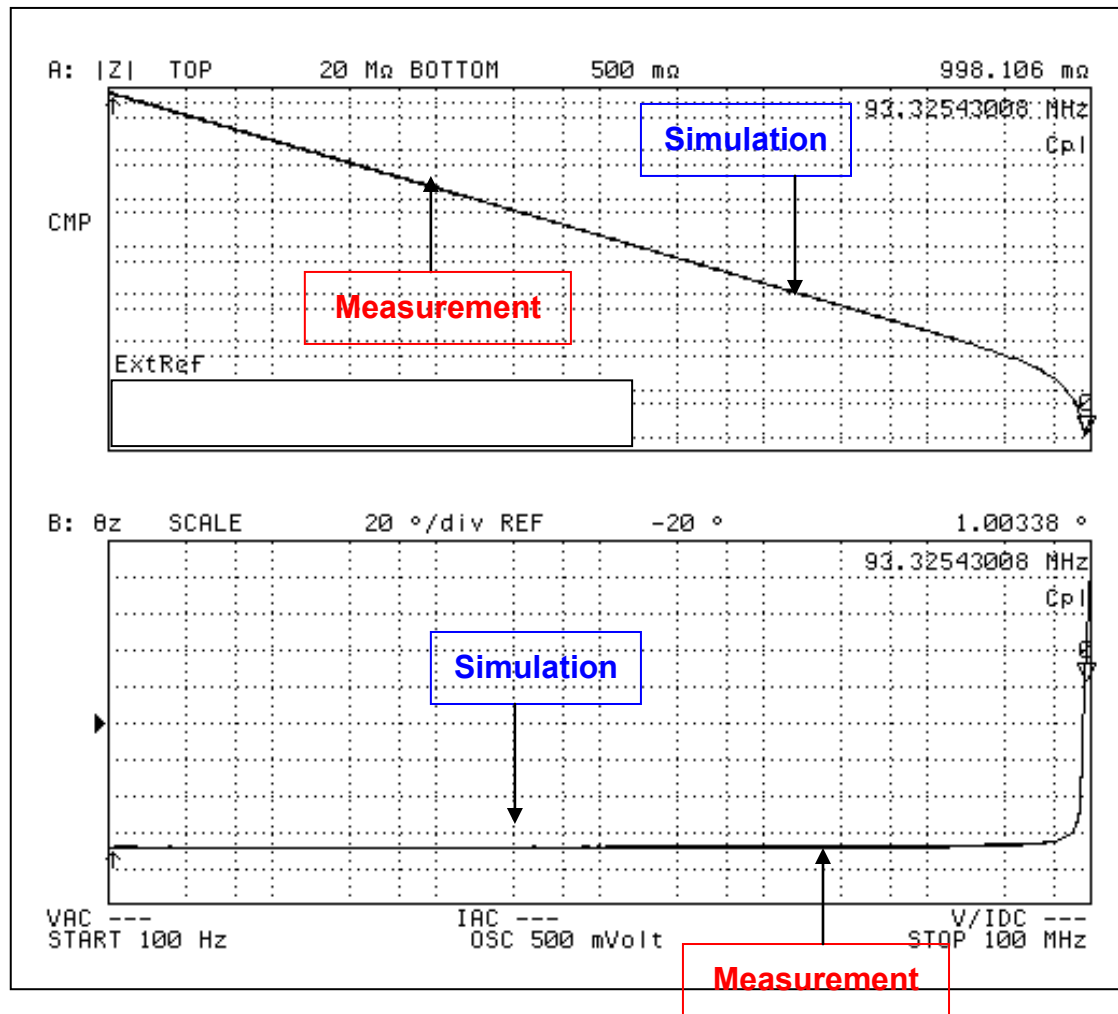
Optimization of Simulation

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

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

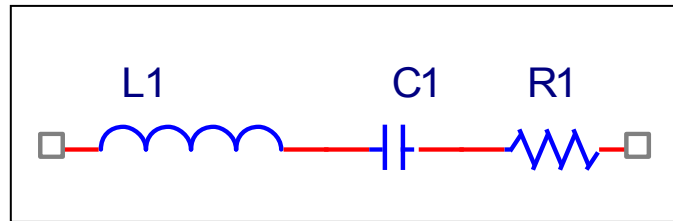
Attention)

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



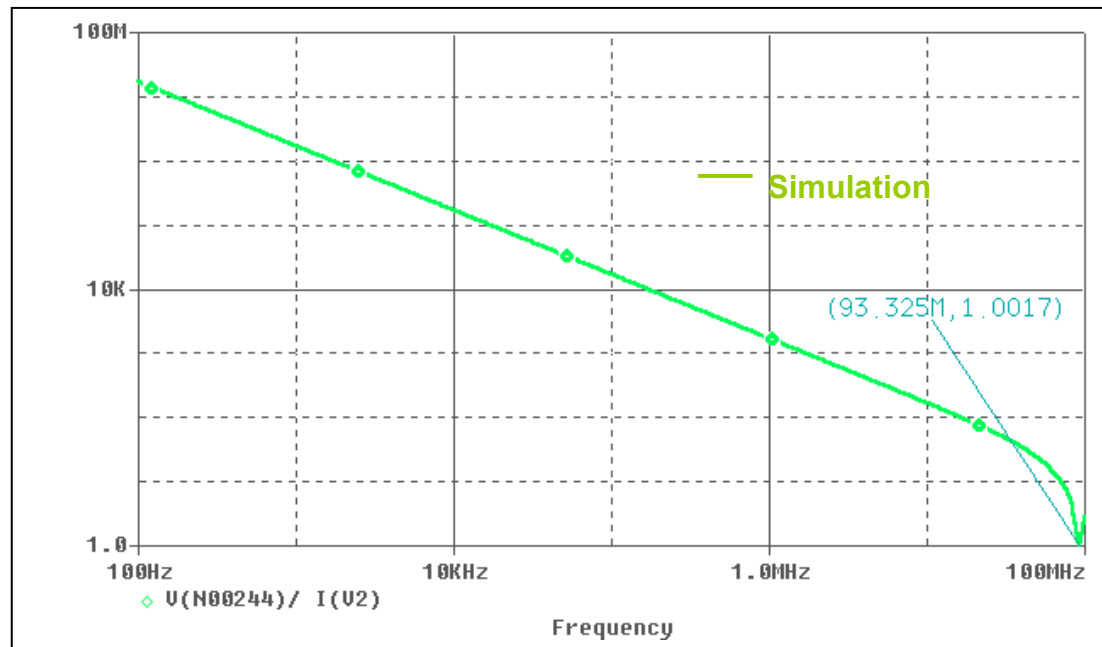
L1	
C1	
R1	

Equivalent circuit

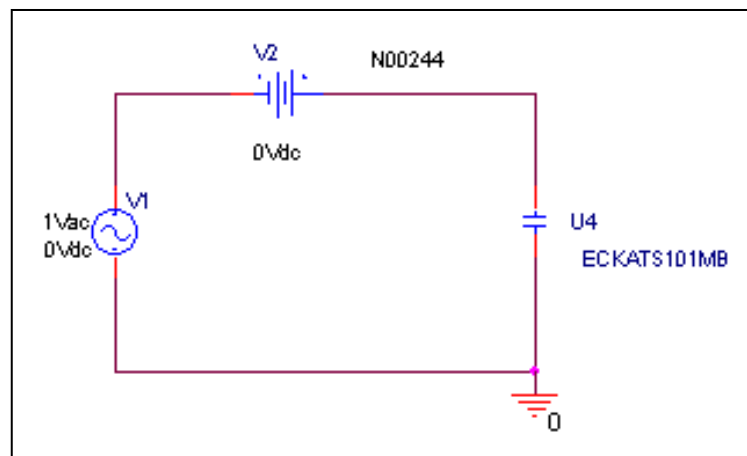


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	15.7551M	17.036M	8.1301
1K	1.58612M	1.7036M	7.4068
10K	160.034K	170.361K	6.4530
100K	16.1541K	17.036K	5.4593
1M	1.64071K	1.7034K	3.8209
10M	165.993	168.405	1.4531
100M	2.72941	2.7378	0.3074

	Measurement	Simulation	%Error
FSRF(Hz)	93.325M	93.325M	0.0000
IZI (ohm)	0.9981	1.0017	0.3607