

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKATS471MB
MANUFACTURER: PANASONIC
REMARK: TA=25C



Bee Technologies Inc.

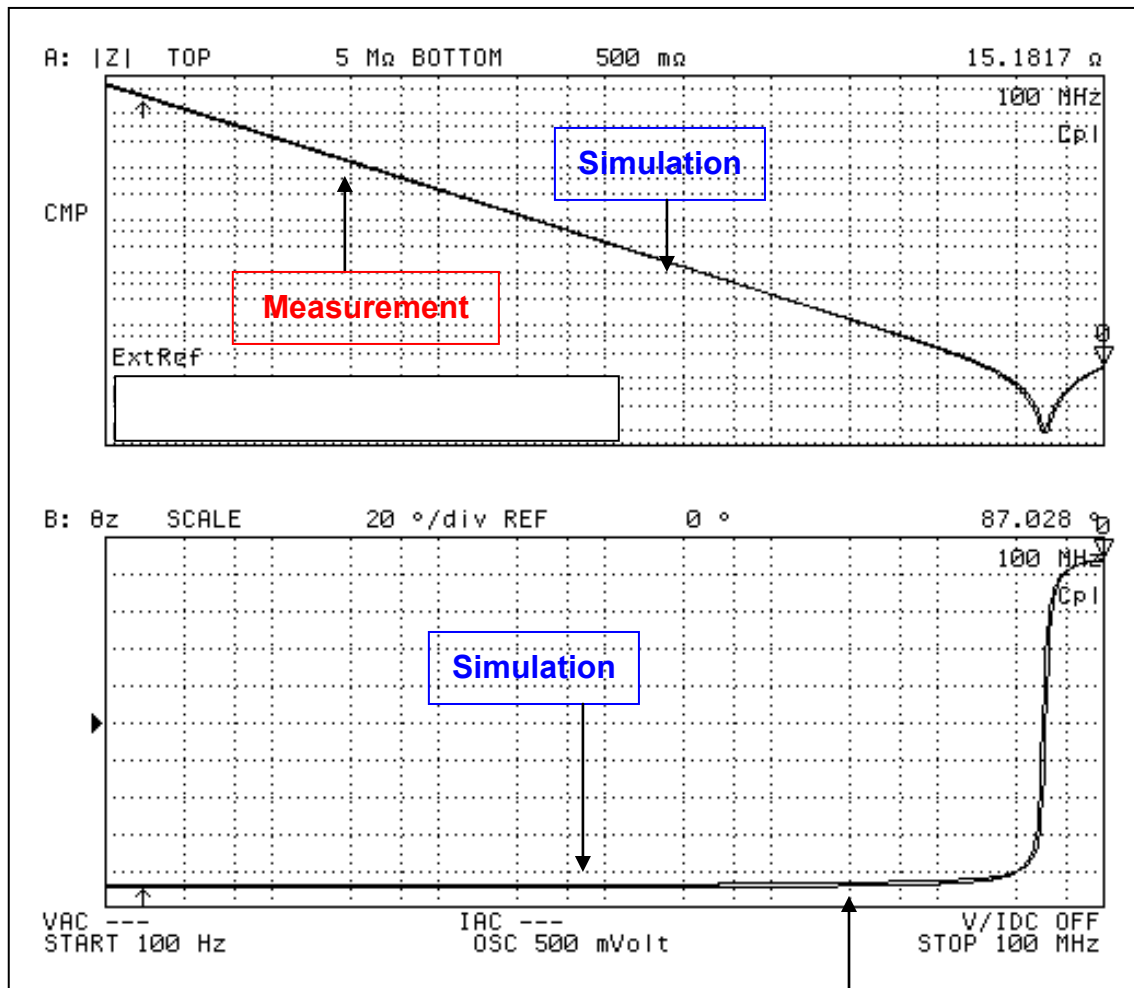
Theory: Auto Balancing Bridge Method

Optimization of Simulation

Range of adjustment Frequency: 100Hz to 100M(Hz)
 Frequency vs. $|Z|$ and Frequency vs. θ_z Characteristic

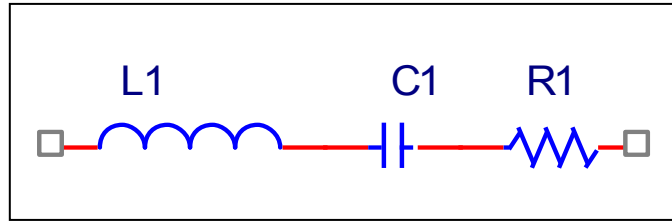
Attention)

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



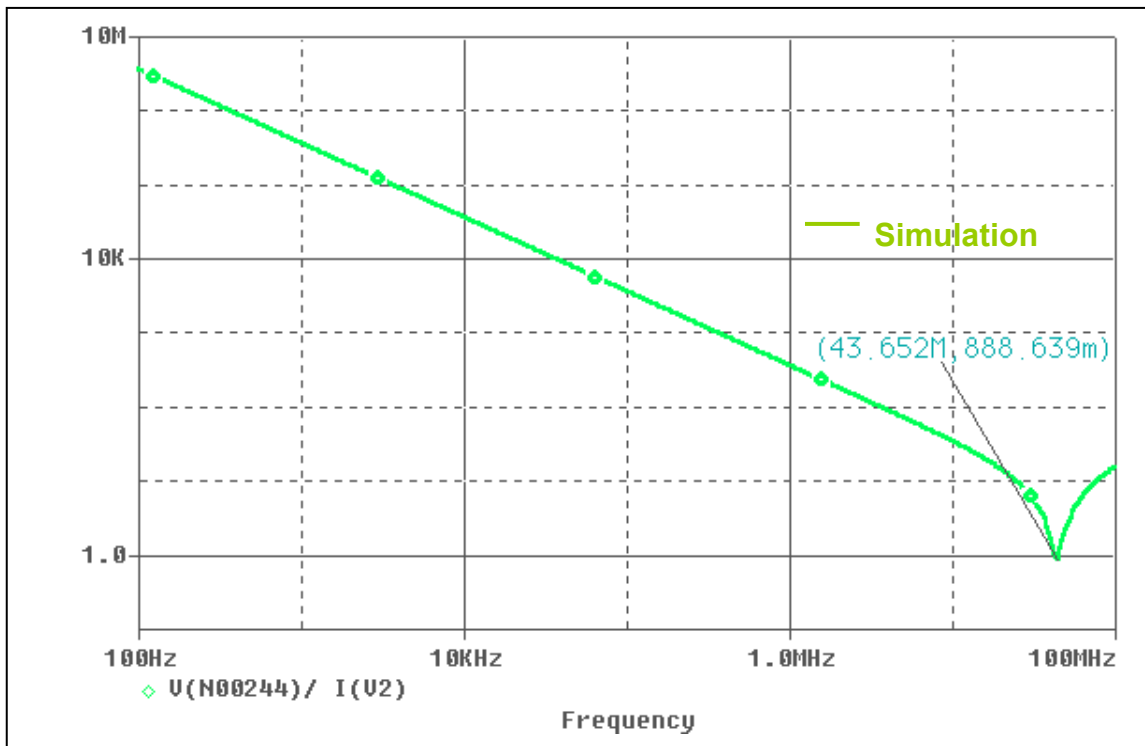
L1	
C1	
R1	

Equivalent circuit

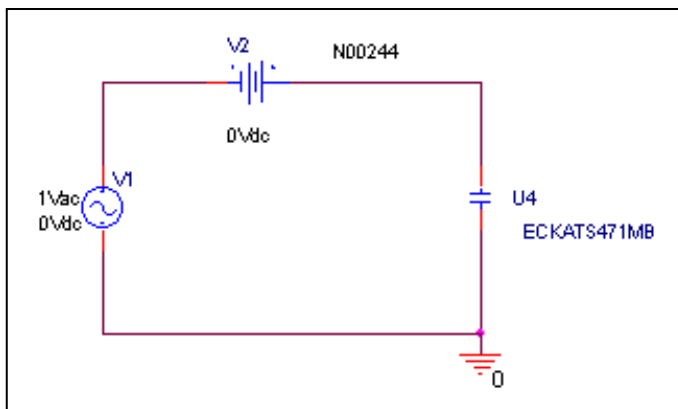


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	3.38202M	3.676M	8.6924
1K	342.955K	367.600K	7.1861
10K	34.7942K	36.7600K	5.6498
100K	3.55197K	3.6766K	3.5088
1M	367.04	367.409	0.1005
10M	36.9368	34.848	5.6551
100M	15.1785	15.579	2.6386

	Measurement	Simulation	%Error
FSRF(Hz)	45.4090M	43.652M	3.8693
IZI (ohm)	886.895m	888.639m	0.1966