

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKTBC472ME
MANUFACTURER: PANASONIC
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

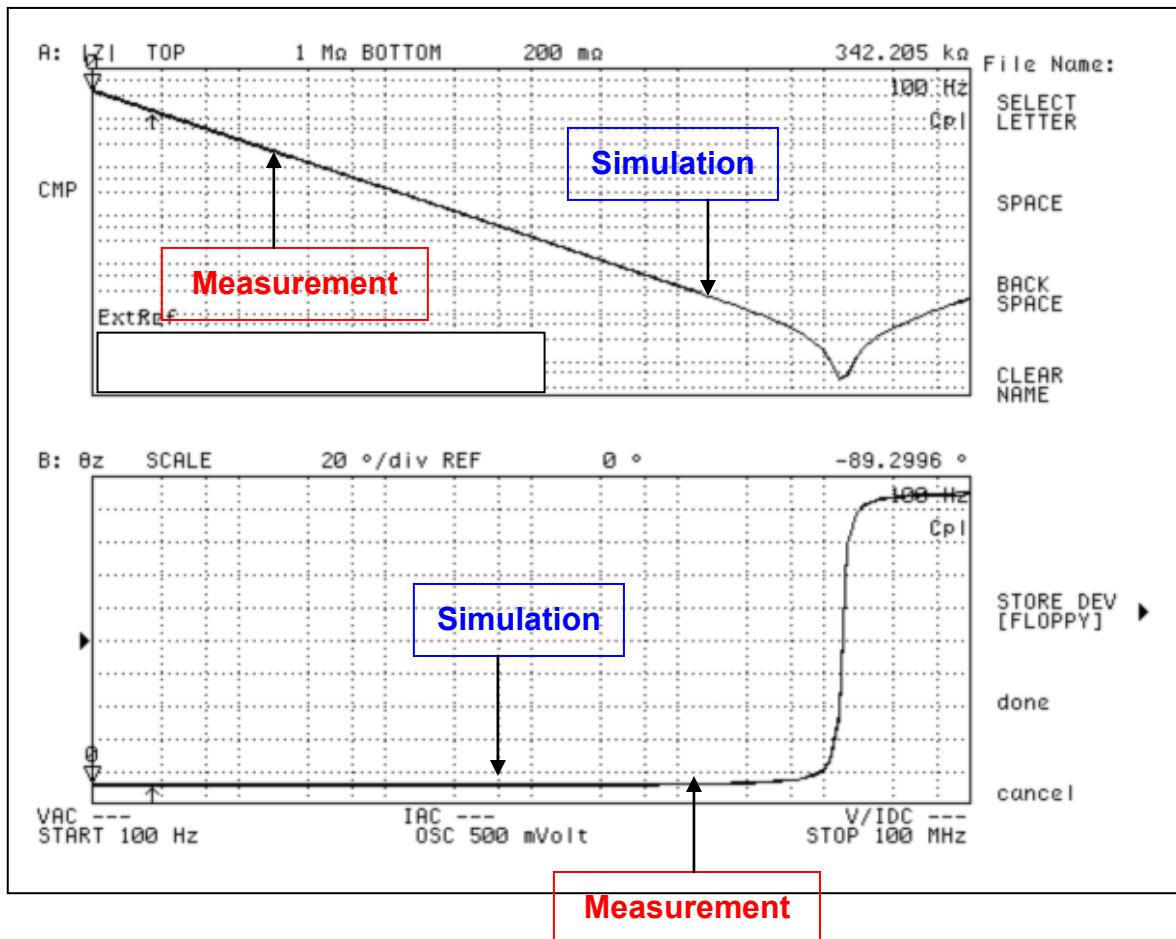
Optimization of Simulation

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

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

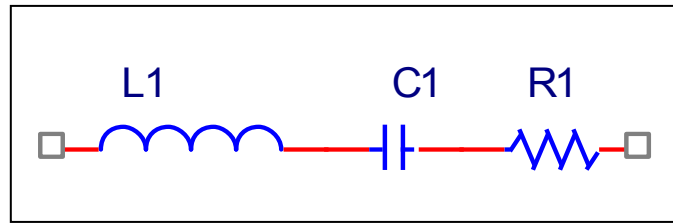
Attention)

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



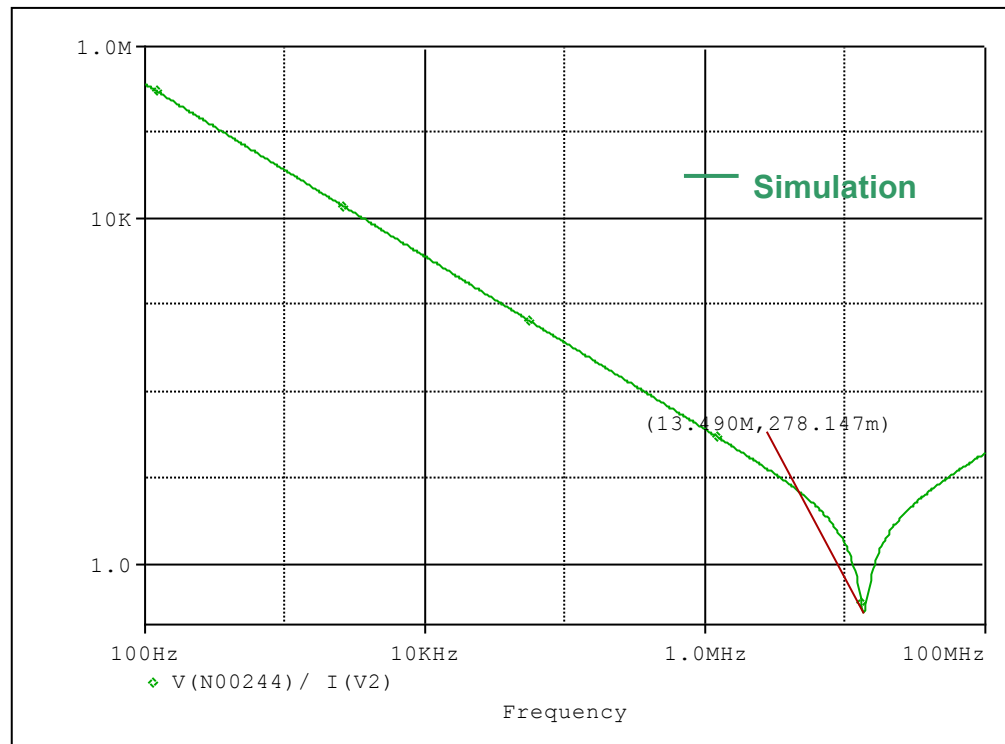
L1	
C1	
R1	

Equivalent circuit

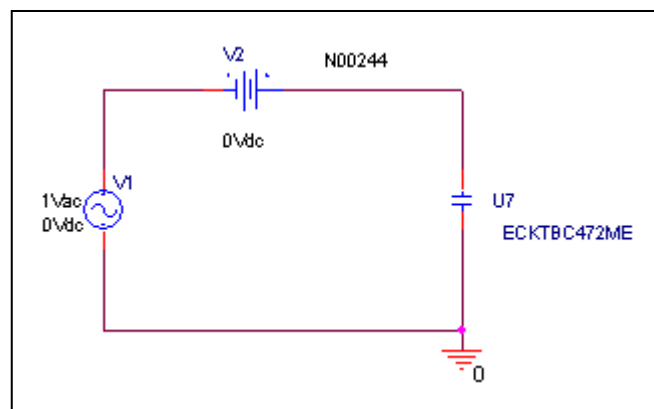


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	345.61k	367.795k	6.4191
1K	35.085k	36.780k	4.8311
10K	3.54813k	3.6780k	3.6602
100K	358.972	367.776	2.4526
1M	36.9962	36.582	-1.1196
10M	1.69279	1.7149	1.3061
100M	18.9447	19.485	2.8520

	Measurement	Simulation	%Error
FSRF(Hz)	12.8502M	13.490M	4.9789
IZI (ohm)	402.944m	278.147m	-30.9713