

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKTBC222ME
MANUFACTURER: PANASONIC
REMARK: TA=40C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

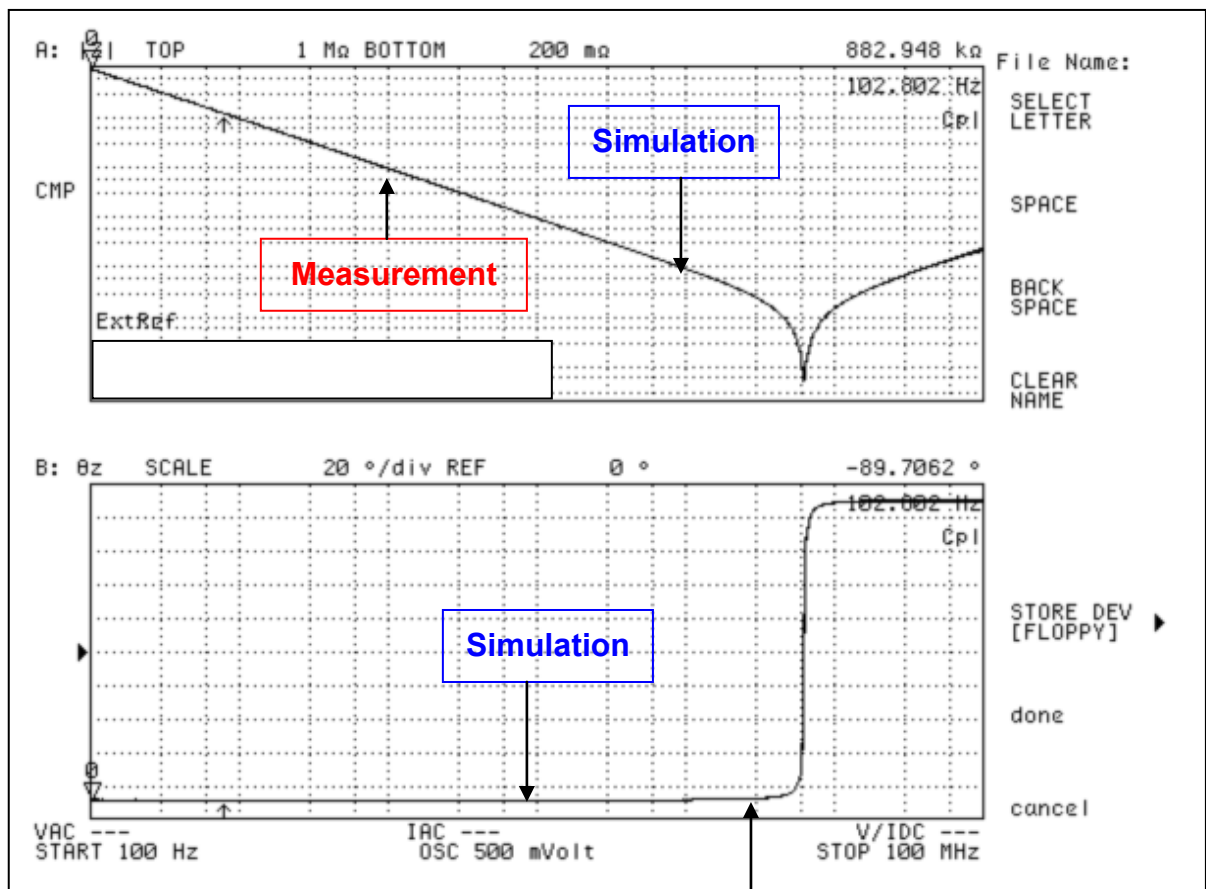
Optimization of Simulation

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

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

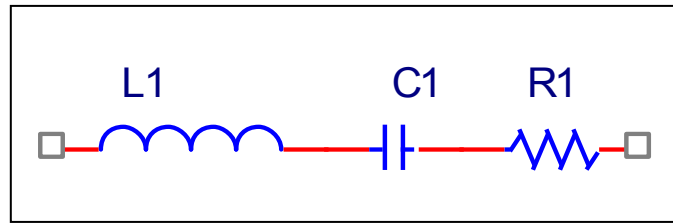
Attention)

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



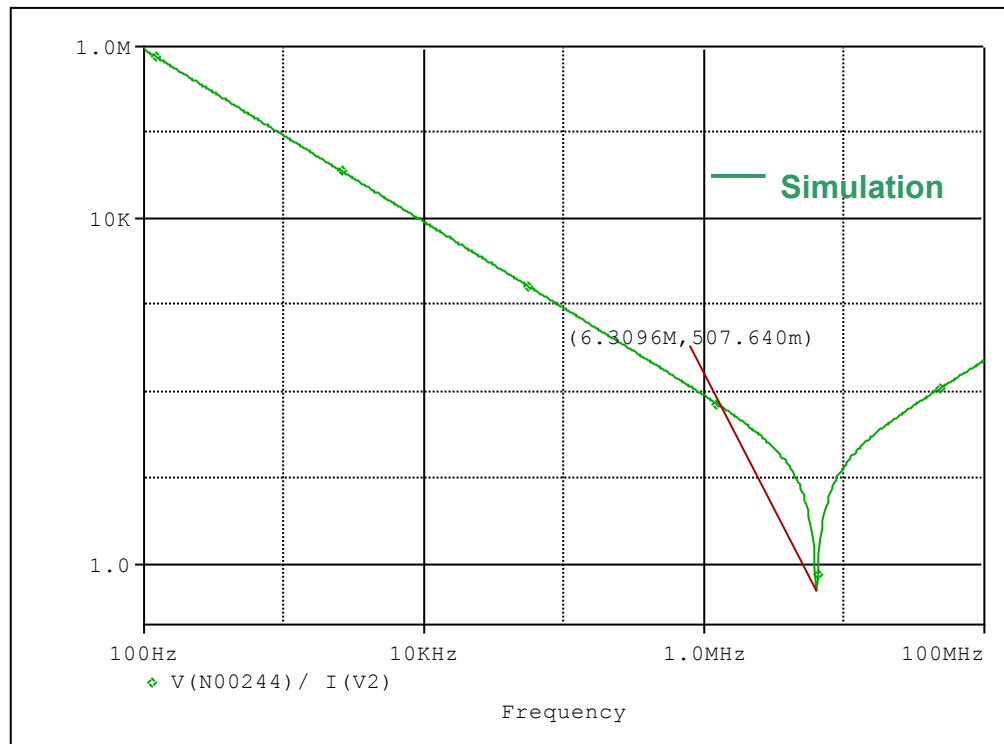
L1	
C1	
R1	

Equivalent circuit

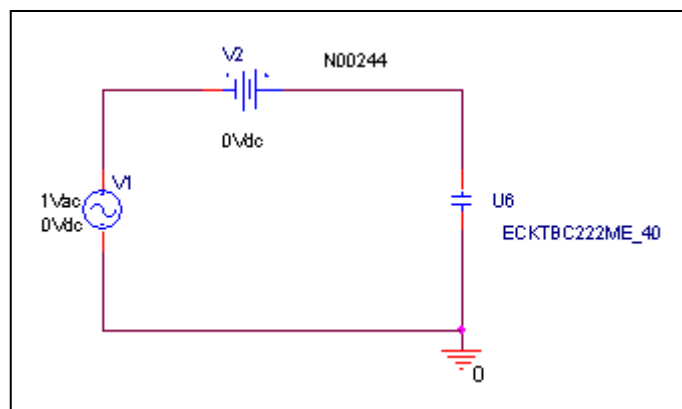


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	912.445k	925.610k	1.4428
1K	91.5581k	92.561k	1.0954
10K	9.18164k	9.2561k	0.8110
100K	920.315	925.380	0.5504
1M	90.011	90.260	0.2766
10M	13.9607	14.143	1.3058
100M	202.134	229.280	13.4297

	Measurement	Simulation	%Error
FSRF(Hz)	6.309573M	6.3096M	0.0004
IZI (ohm)	488.195m	507.640m	3.9830