

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKTBC472ME
MANUFACTURER: PANASONIC
REMARK: TA=80C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

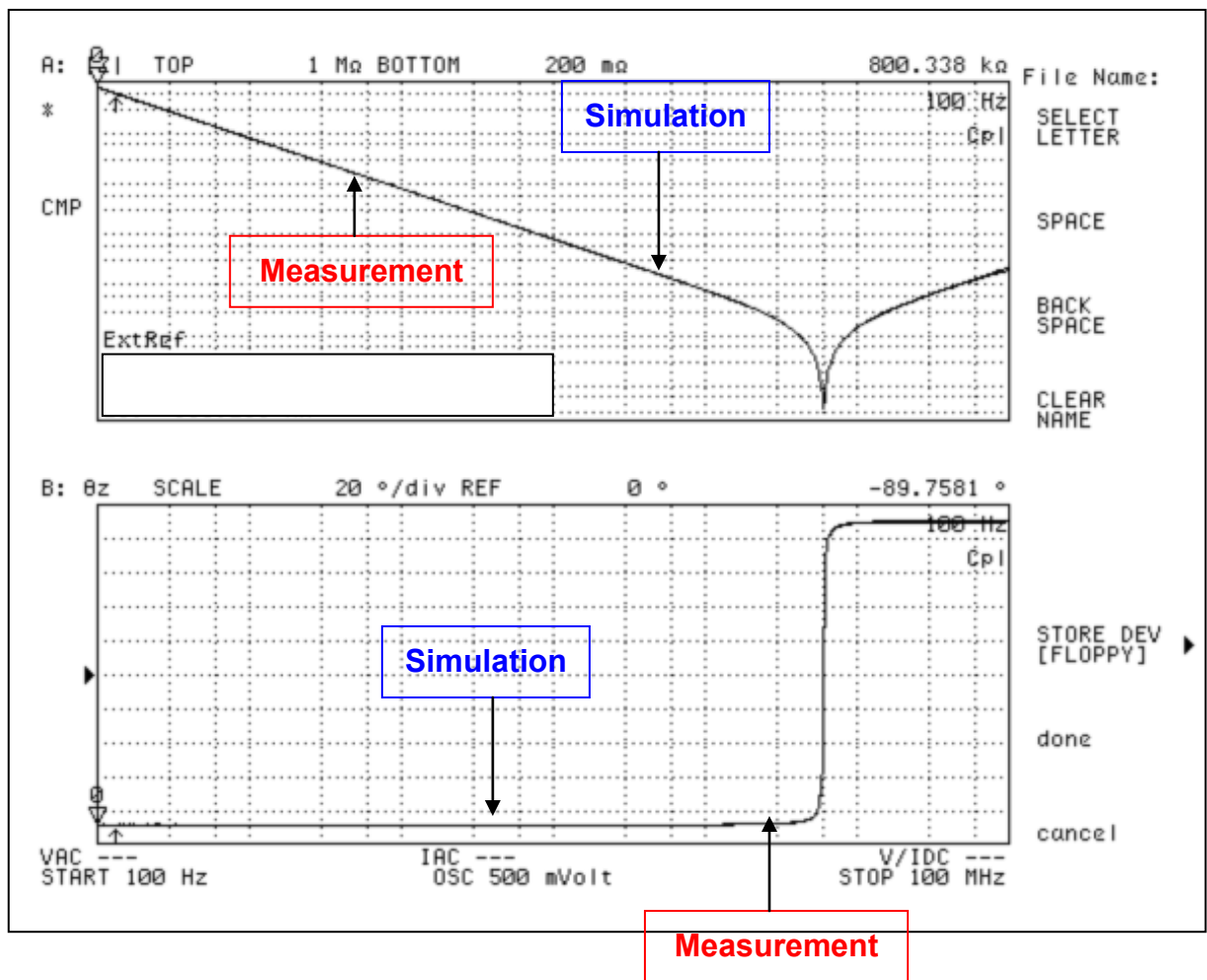
Optimization of Simulation

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

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

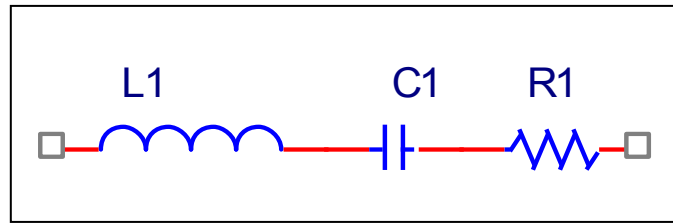
Attention)

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



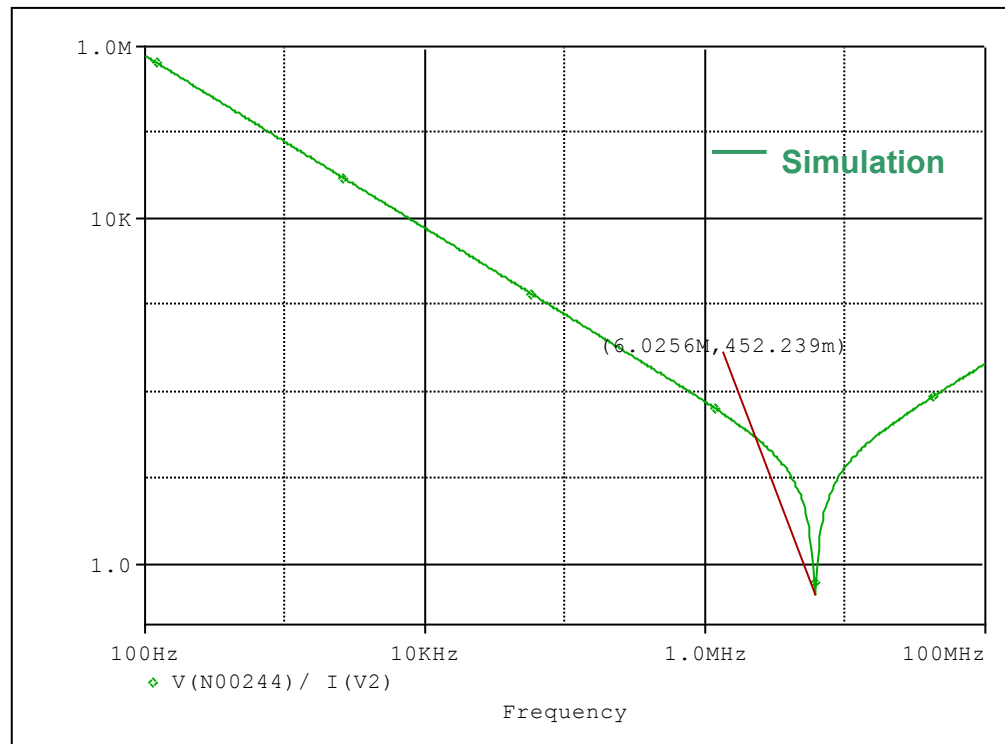
L1	
C1	
R1	

Equivalent circuit

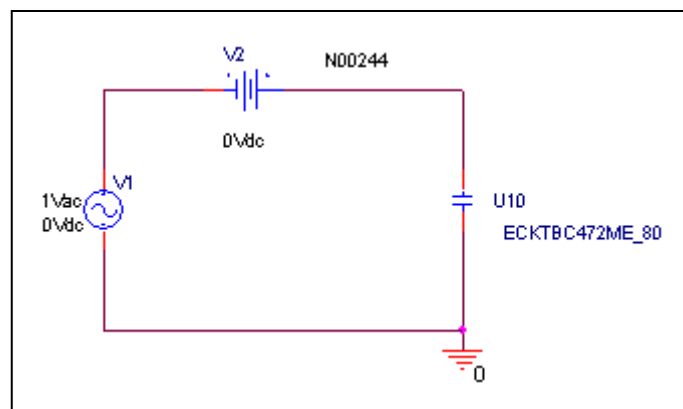


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	794.82k	784.443k	-1.3056
1k	79.9495k	78.444k	-1.8831
10k	8.036624	7.8444k	-2.3918
100k	805.239	784.232	-2.6088
1M	78.5656	76.333	-2.8417
10M	13.074	13.287	1.6292
100M	183.933	210.481	14.4335

	Measurement	Simulation	%Error
FSRF(Hz)	6.2015M	6.0256M	-2.8364
IZI (ohm)	377.778m	452.239m	19.7103