

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKTBC222ME
MANUFACTURER: PANASONIC
REMARK: TA=60C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

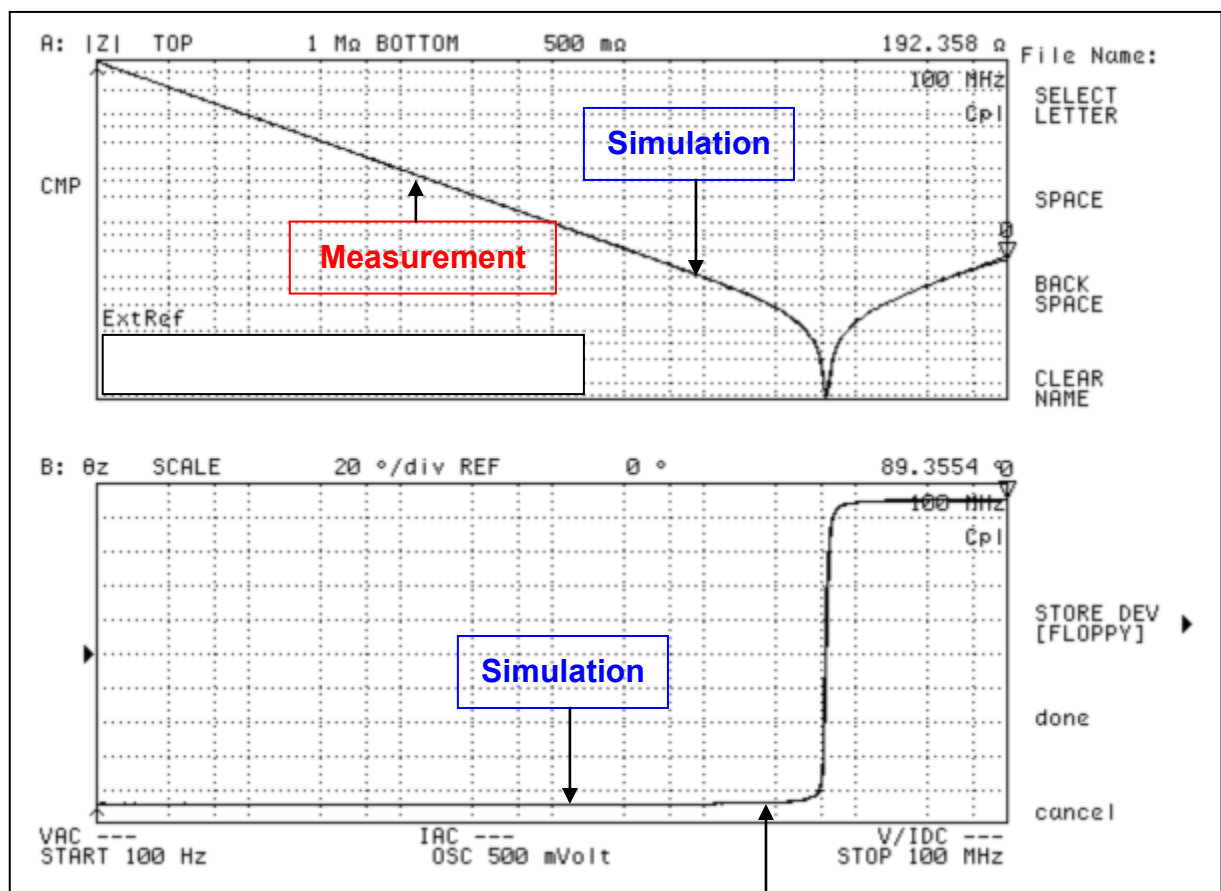
Optimization of Simulation

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

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

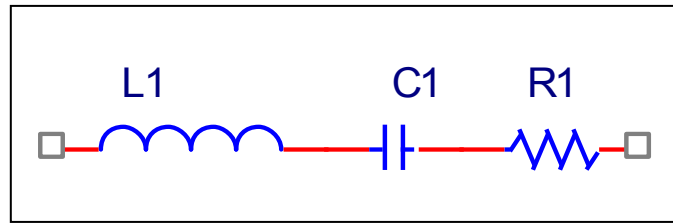
Attention)

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



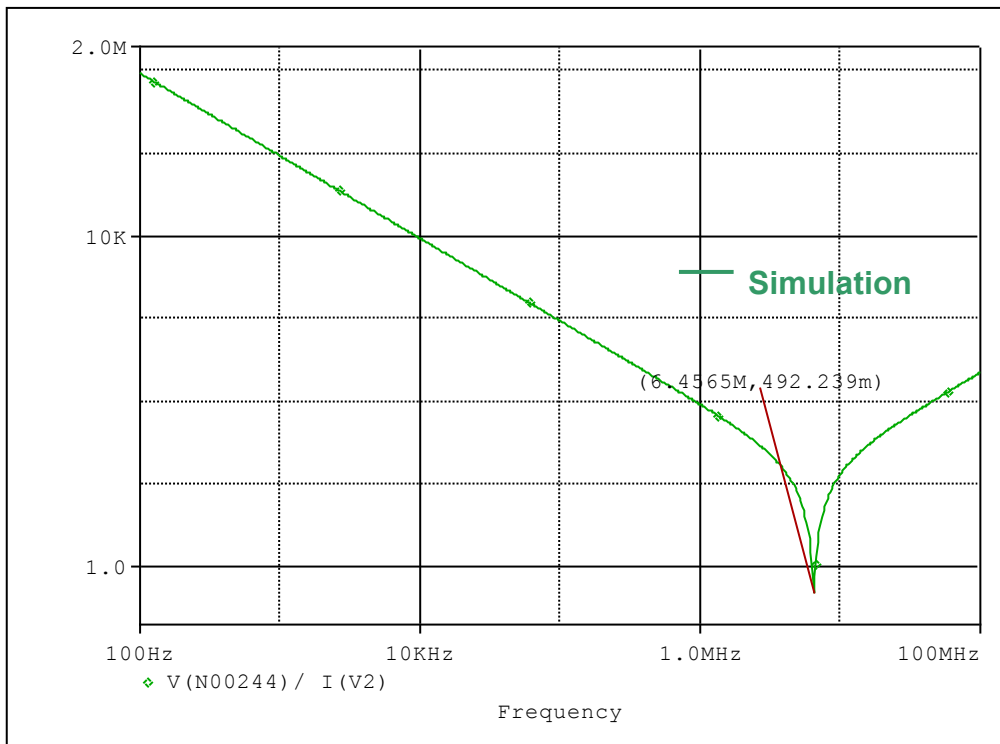
L1	
C1	
R1	

Equivalent circuit

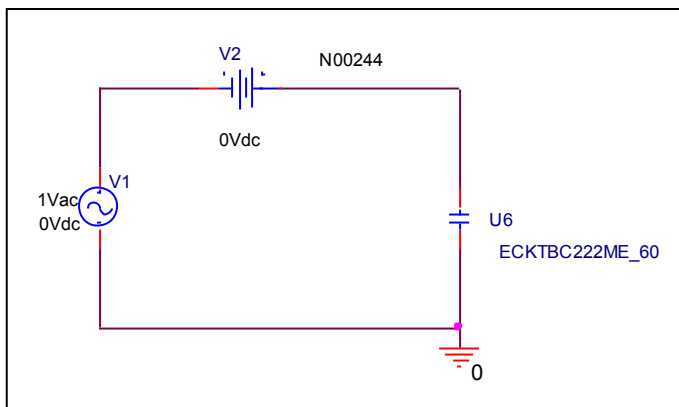


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	841.486k	947.4858k	12.5967
1K	96.0887k	94.746k	-1.3974
10K	9.66597k	9.4746k	-1.9798
100K	970.481	947.232	-2.3956
1M	95.1729	92.486	-2.8232
10M	12.8664	13.148	2.1886
100M	192.358	225.189	17.0677

	Measurement	Simulation	%Error
FSRF(Hz)	6.5313M	6.4565M	-1.1453
IZI (ohm)	493.975m	492.239m	-0.3514