

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS152ME
MANUFACTURER: PANASONIC
REMARK: TA=40C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

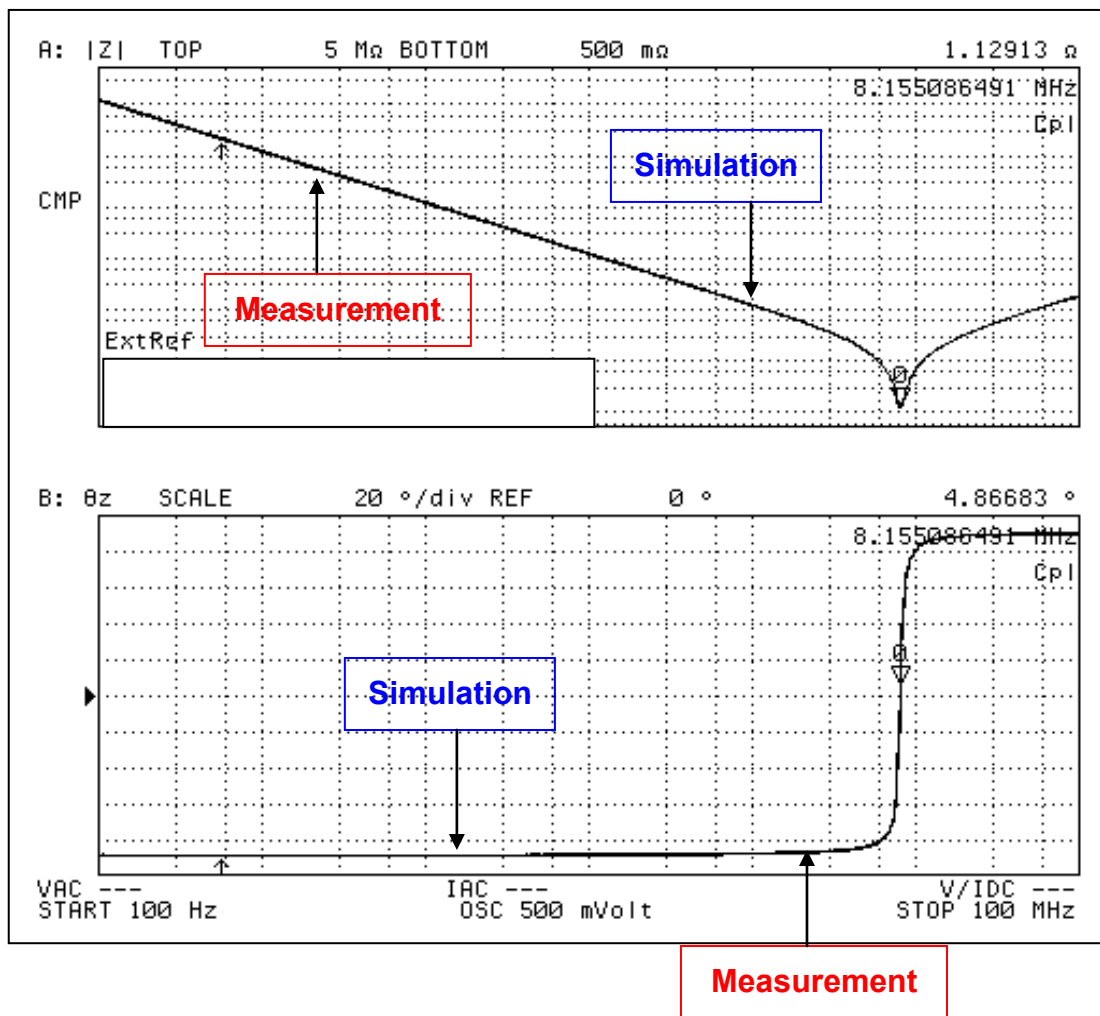
Optimization of Simulation

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

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

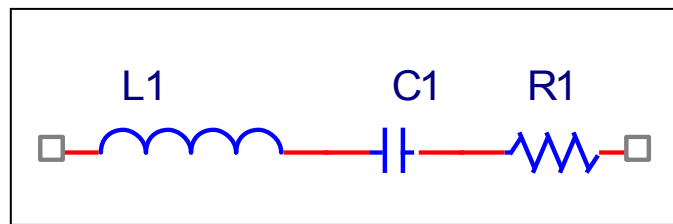
Attention)

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



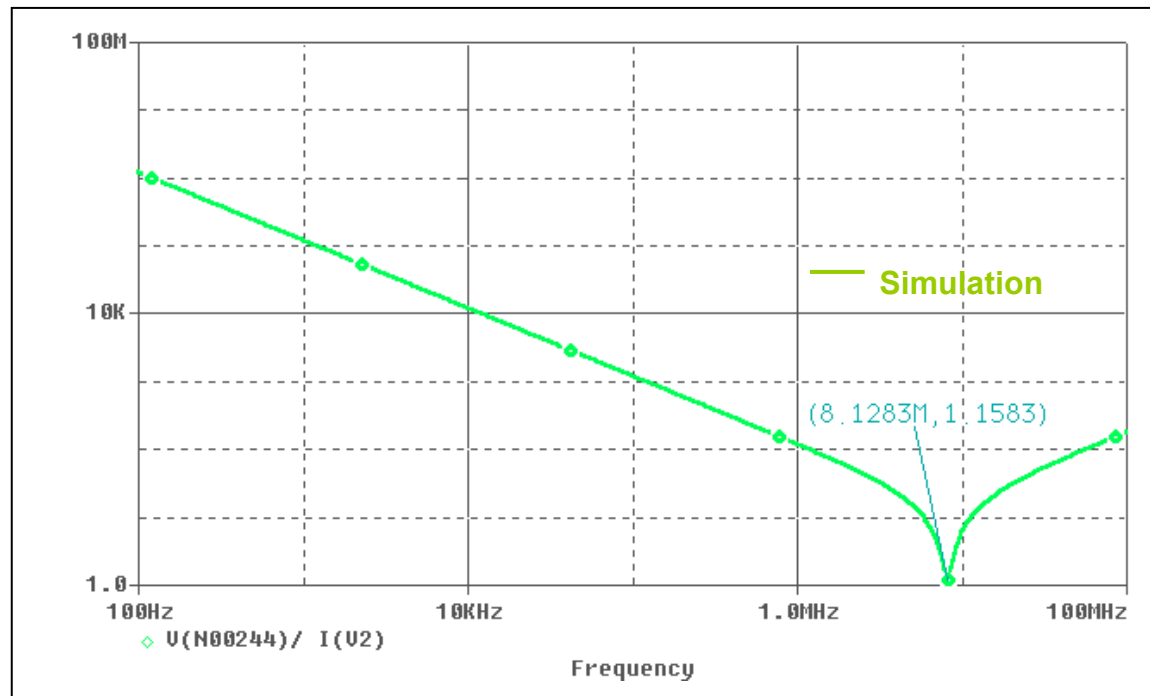
L1	
C1	
R1	

Equivalent circuit

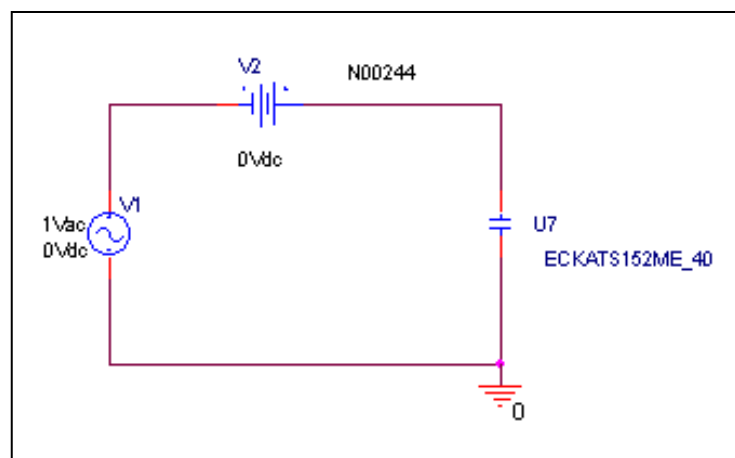


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	1.13225M	1.2152M	7.3261
1K	113.685K	120.064K	5.6111
10K	11.4167K	12.152K	6.4406
100K	1.14945K	1.2005K	4.4413
1M	114.84	119.721	4.2503
10M	6.24182	6.3513	1.7540
100M	168.441	179.261	6.4236

	Measurement	Simulation	%Error
FSRF(Hz)	8.155M	8.1283M	0.3274
IZI (ohm)	1.1267	1.1583	2.8047