

Device Modeling Report

COMPONENTS: CAPACITOR/Films
PART NUMBER: ECQV1H473JL3
MANUFACTURER: Matsushita Electric Industrial Co.,Ltd.



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

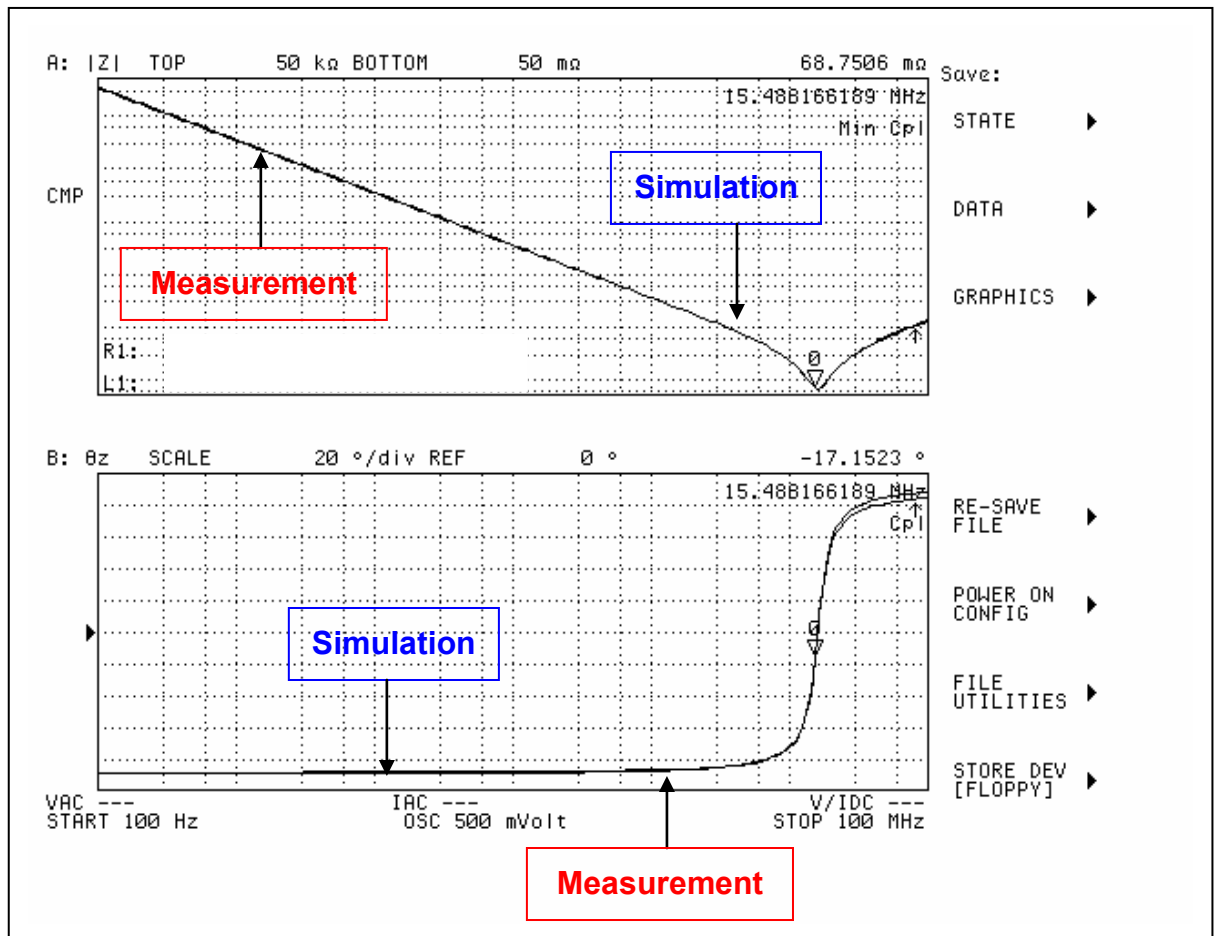
Optimization of Simulation

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

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

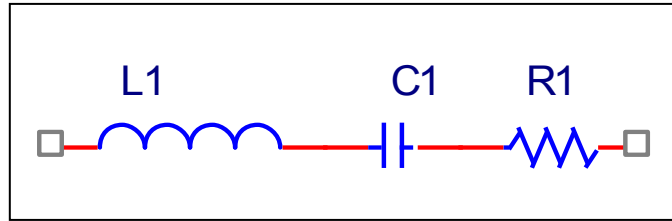
Attention)

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



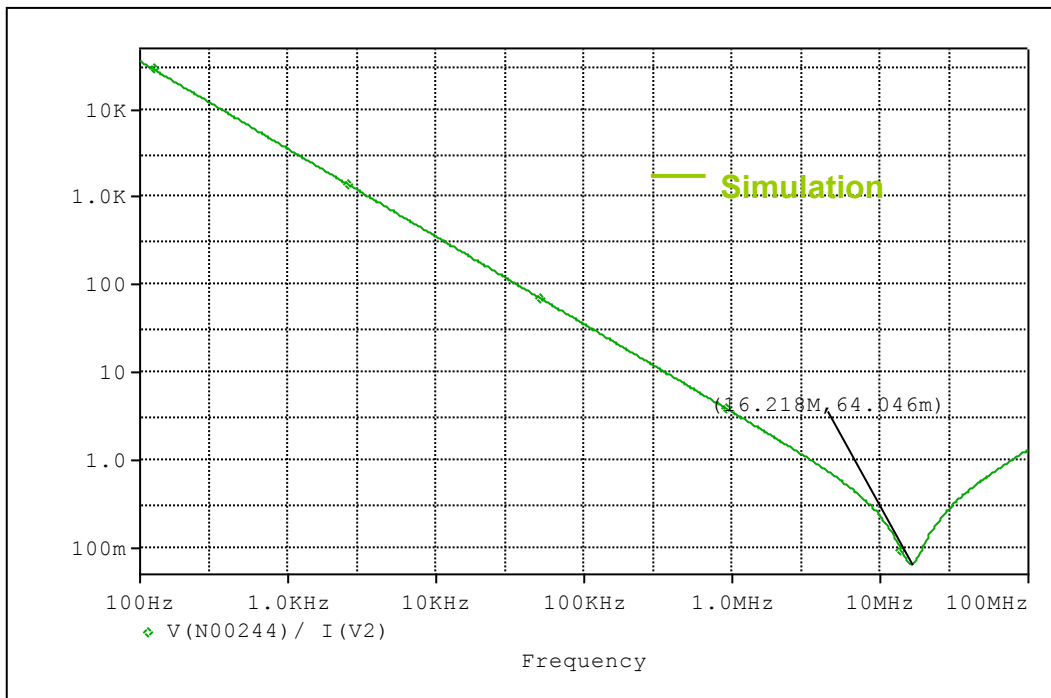
L1	
C1	
R1	

Equivalent circuit

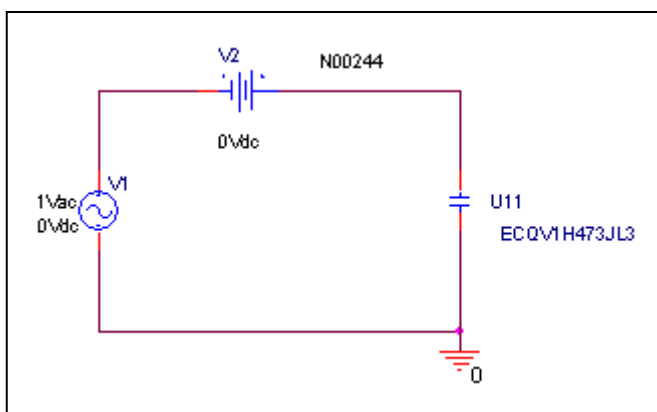


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	36.1243K	35.557K	-1.5704
1K	3.6456K	3.5557K	-2.4660
10K	358.241	355.574	-0.7445
100K	35.7364	35.556	-0.5048
1M	3.5248	3.5428	0.5107
10M	226.723m	224.463m	-0.9968
100M	1.3524	1.3232	-2.1591

	Measurement	Simulation	%Error
FSRF(Hz)	17.326M	16.218M	-6.3950
IZI (ohm)	66.743m	64.046m	-4.0409