

Device Modeling Report

COMPONENTS: CAPACITOR/Films
PART NUMBER: ECQV1H104JL3
MANUFACTURER: Matsushita Electric Industrial Co.,Ltd.



Bee Technologies Inc.

heory: Auto Balancing Bridge Method

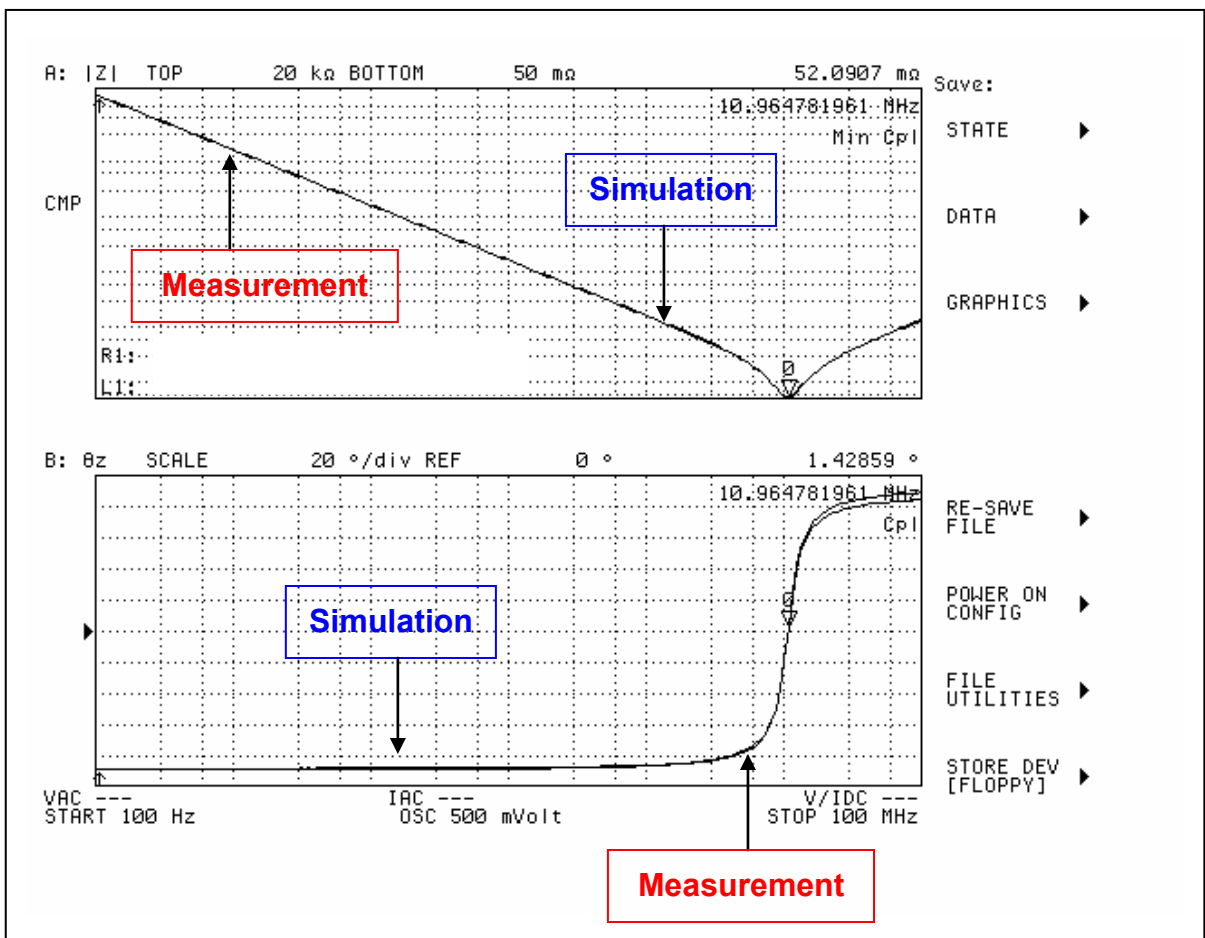
Optimization of Simulation

Range of adjustment Frequency:100Hz to100M(Hz)

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

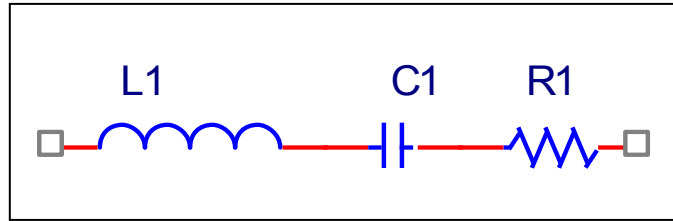
Attention)

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



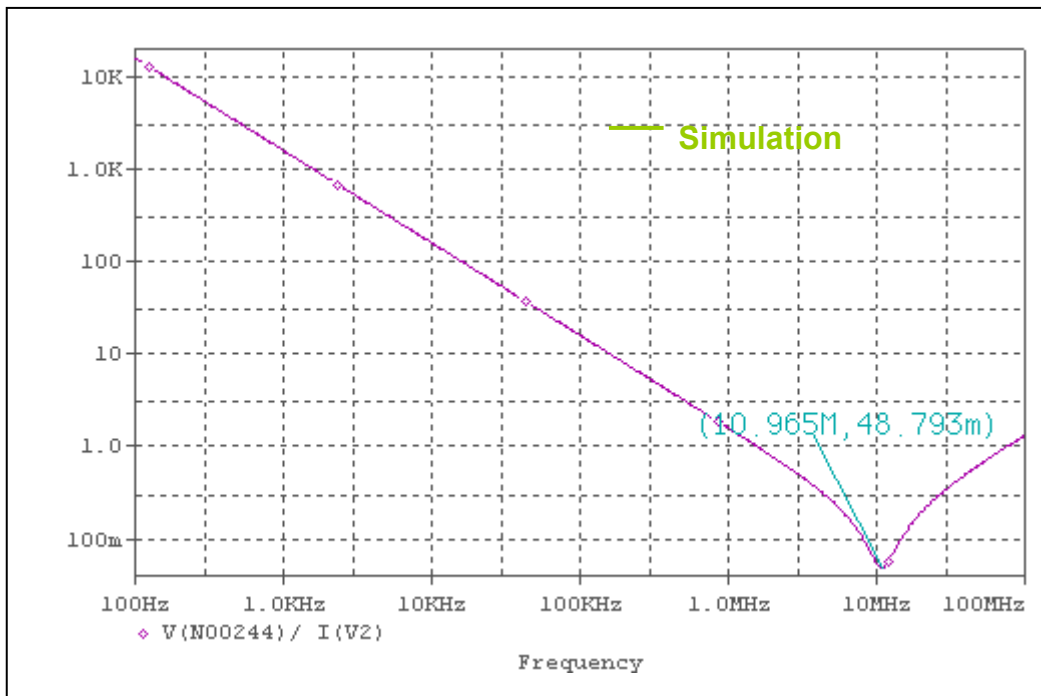
L1	
C1	
R1	

Equivalent circuit

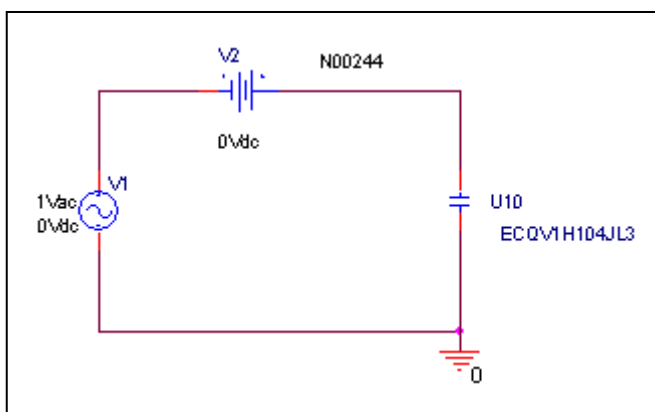


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	16.0123K	15.970K	-0.2642
1K	1.60451K	1.5970K	-0.4681
10K	161.7231	159.698	-1.2522
100K	16.9461	15.969	-5.7659
1M	1.6123	1.5843	-1.7366
10M	55.801m	54.904m	-1.6075
100M	1.4025	1.3295	-5.2050

	Measurement	Simulation	%Error
FSRF(Hz)	11.246M	10.965M	-2.4987
IZI (ohm)	50.7362m	48.793m	-3.8300