

Device Modeling Report

COMPONENTS: CAPACITOR/Films

PART NUMBER: ECQ-B1H103JF3

MANUFACTURER: Matsushita Electric Industrial Co.,Ltd.



Bee Technologies Inc.

heory: Auto Balancing Bridge Method

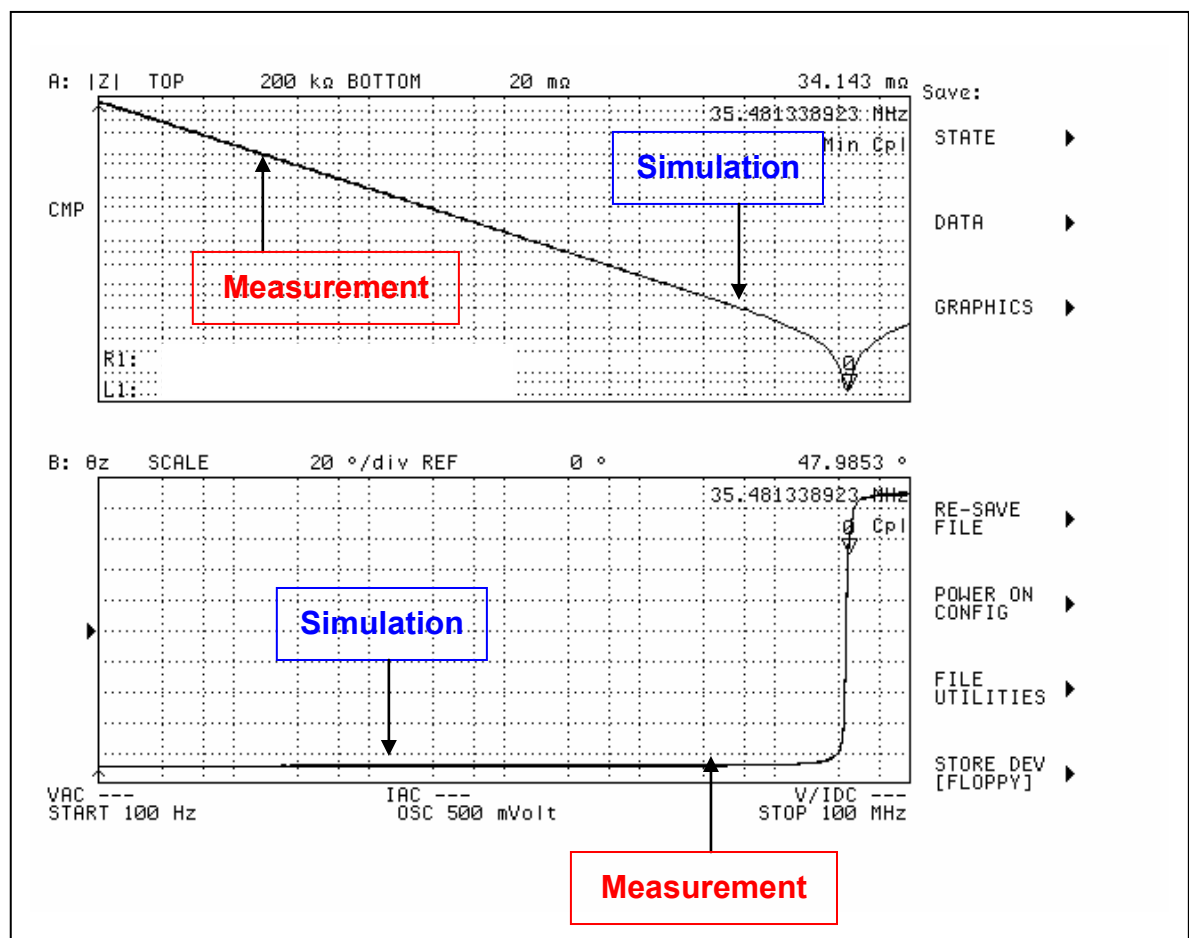
Optimization of Simulation

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

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

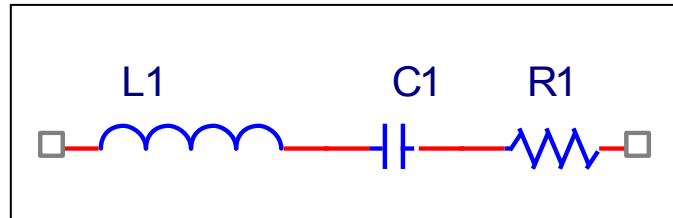
Attention)

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



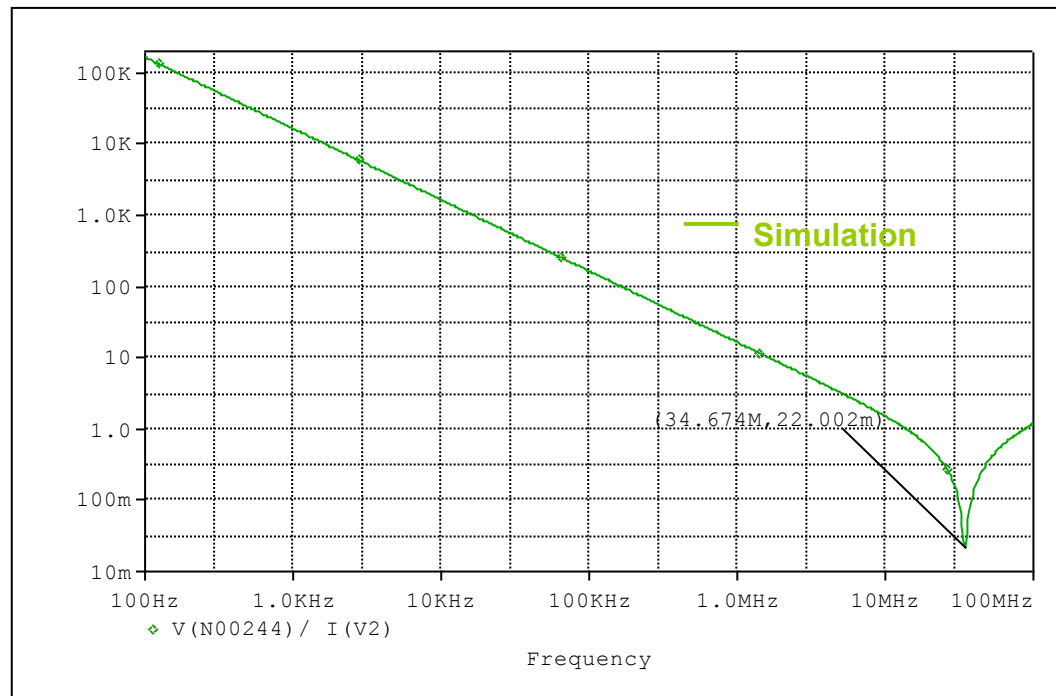
L1	
C1	
R1	

Equivalent circuit

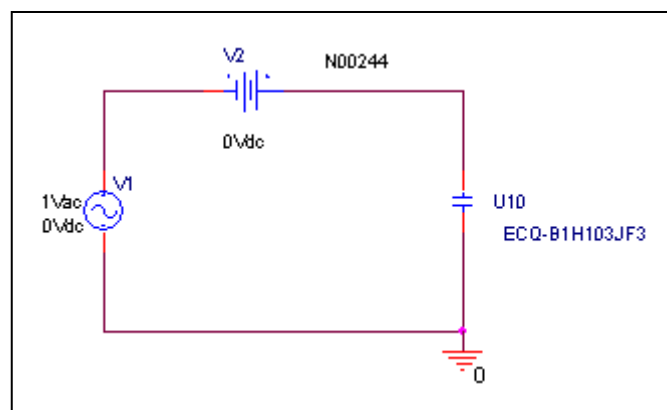


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	165.5122K	164.416K	-0.6623
1K	16.9825K	16.4424K	-3.1803
10K	1.6965K	1.64424K	-3.0805
100K	164.552	164.415	-0.0833
1M	16.526	16.428	-0.5930
10M	1.5123	1.5061	-0.4100
100M	1.2221	1.2181	-0.3273

	Measurement	Simulation	%Error
FSRF(Hz)	34.985M	34.674M	0.1287
IZI (ohm)	23.012m	22.002m	-1.5921