

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: UUG1C472MNR1MS
MANUFACTURER: Nichicon
THERMAL: Ta= 40C (degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

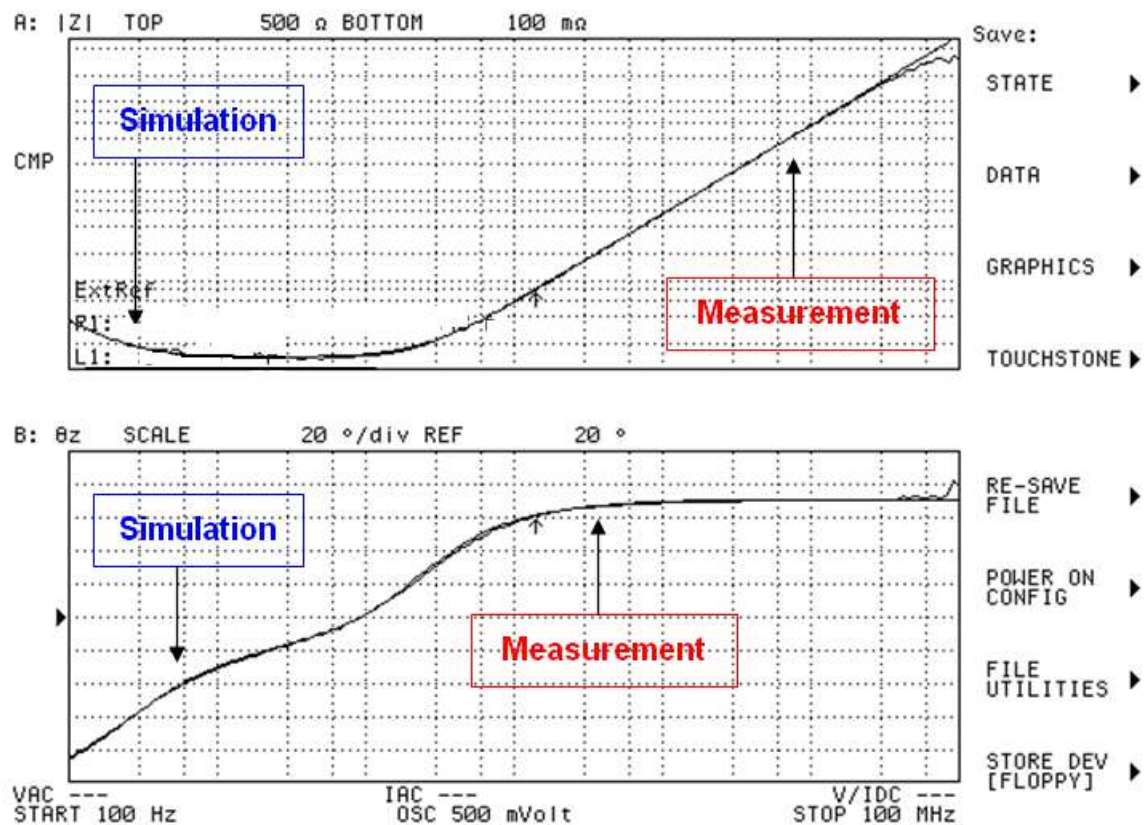
Optimization of Simulation

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

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

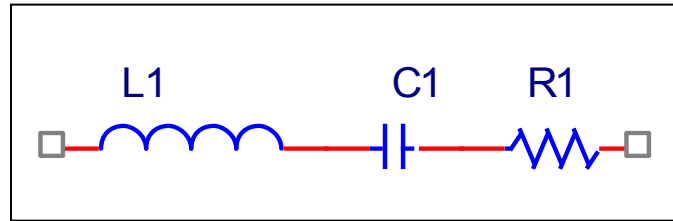
Attention)

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



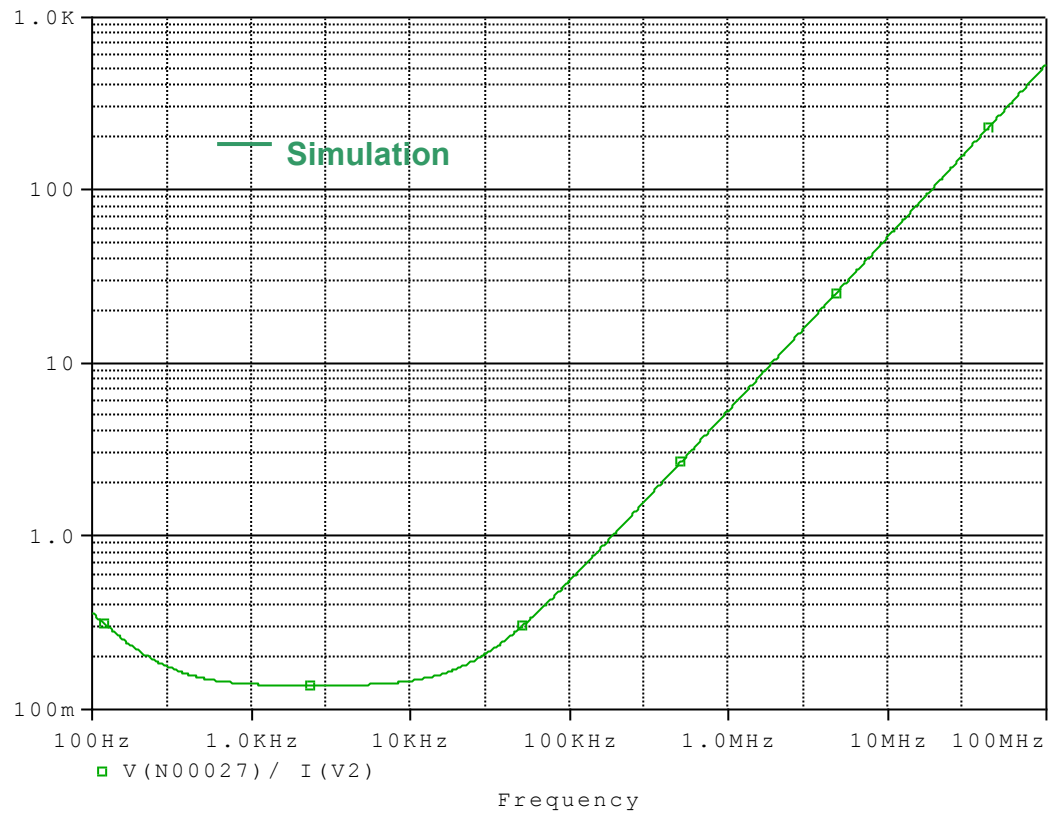
	Measurement	
R1		
C1		
L1		

Equivalent circuit

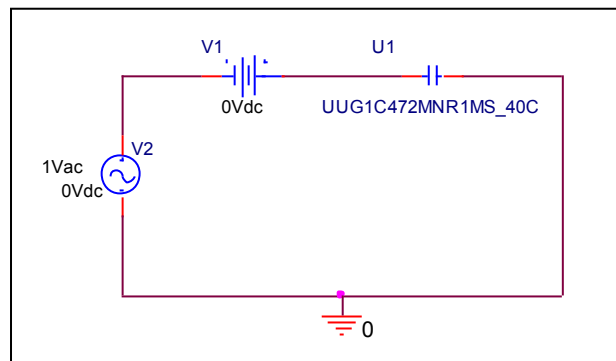


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (Ω)		% Error
	Measurement	Simulation	
100	355.725m	362.330m	1.857
1K	137.707m	140.258m	1.852
10K	139.925m	146.235m	4.509
100K	565.016m	551.556m	- 2.382
1M	5.628	5.347	- 4.997
10M	53.678	53.452	- 0.422