

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: UUG1C472MNR1MS
MANUFACTURER: Nichicon
THERMAL: Ta= 60C (degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

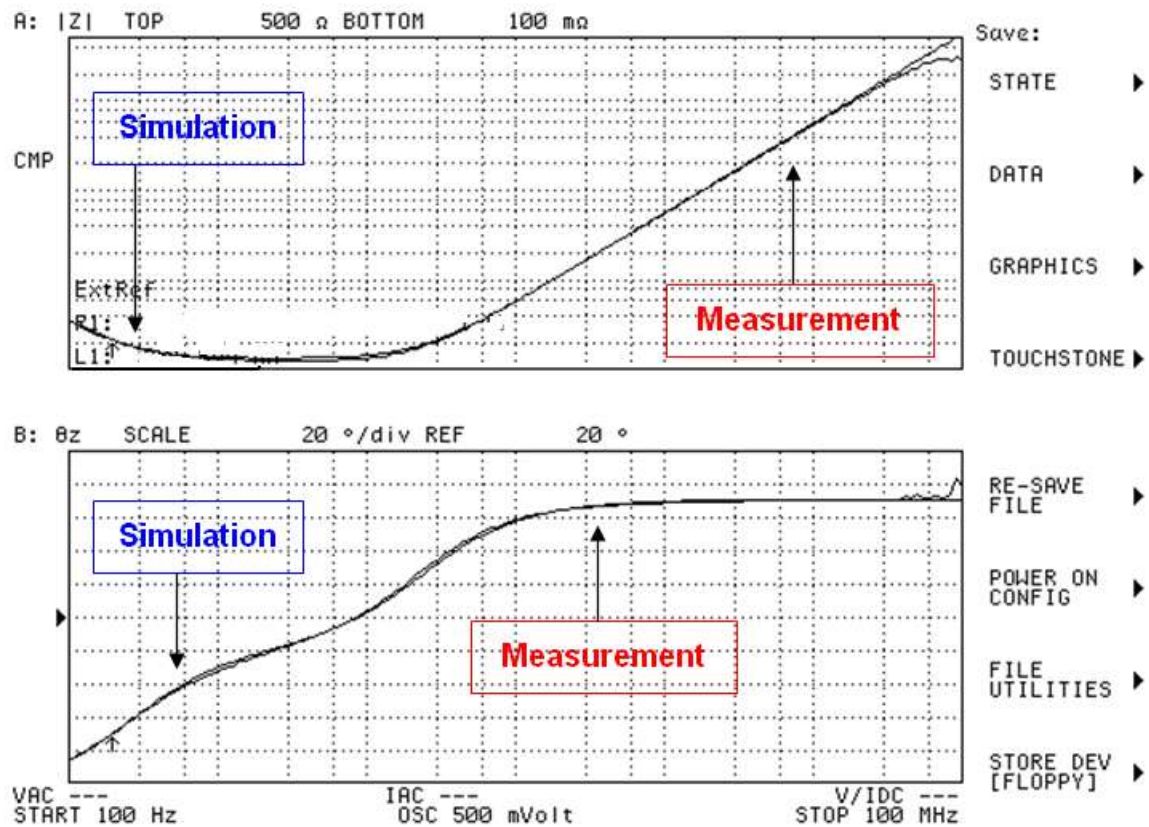
Optimization of Simulation

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

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

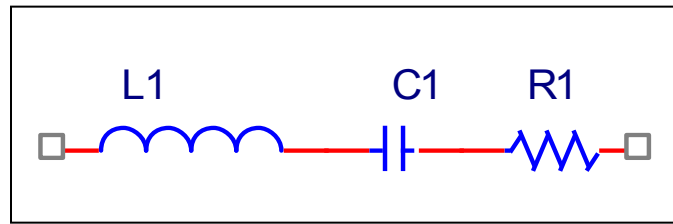
Attention)

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



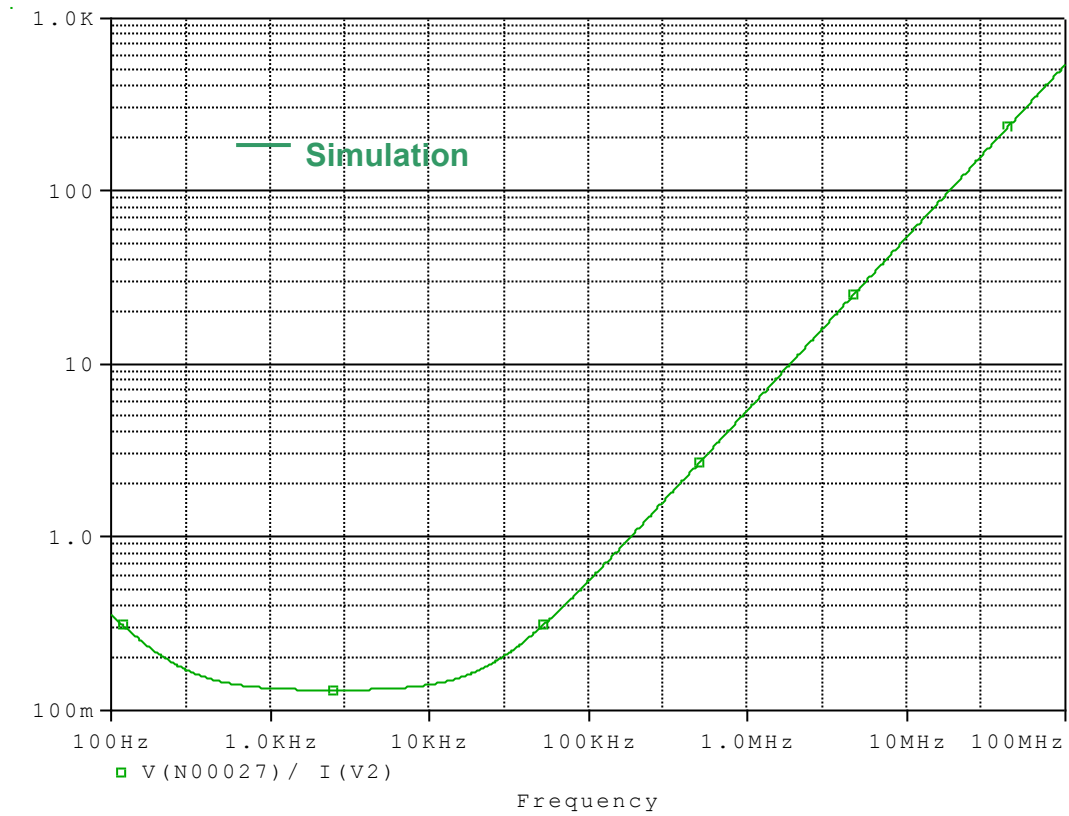
	Measurement	
R1		
C1		
L1		

Equivalent circuit

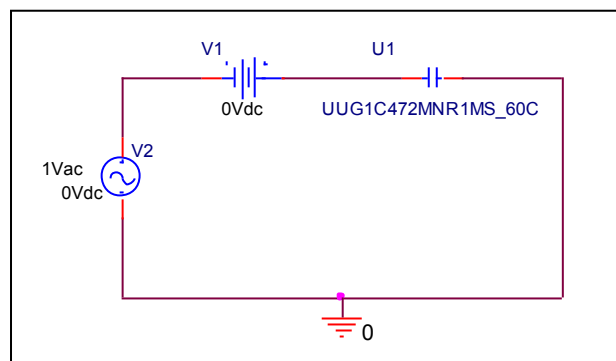


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (Ω)		% Error
	Measurement	Simulation	
100	347.109m	357.058m	2.866
1K	125.889m	134.333m	6.708
10K	130.597m	140.899m	7.888
100K	557.336m	556.786m	- 0.099
1M	5.570	5.415	- 2.781
10M	53.113	54.139	1.932