

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: UUG1C472MNR1MS
MANUFACTURER: Nichicon
THERMAL: Ta= 25C (degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

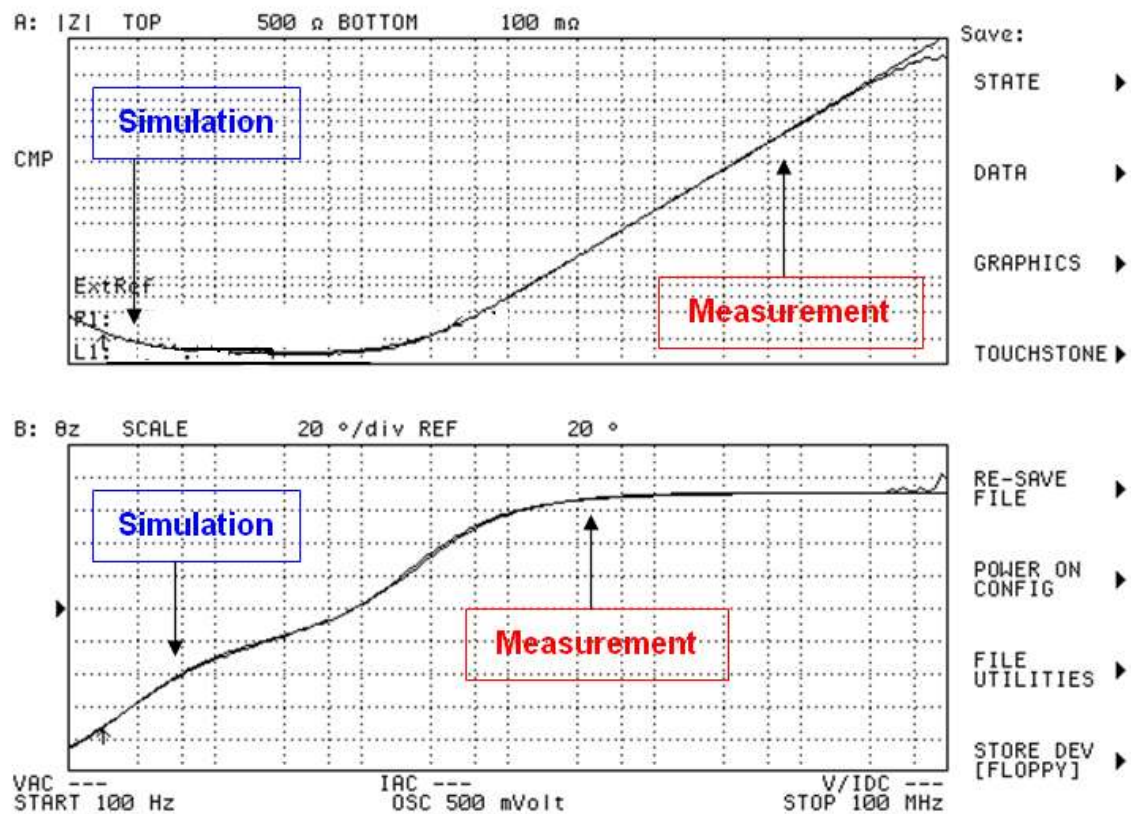
Optimization of Simulation

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

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

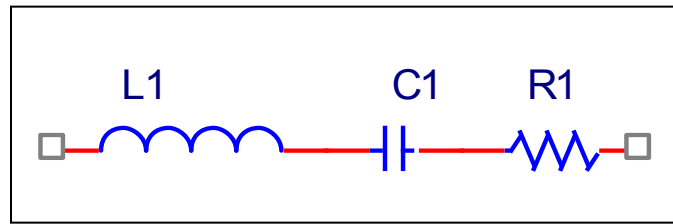
Attention)

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



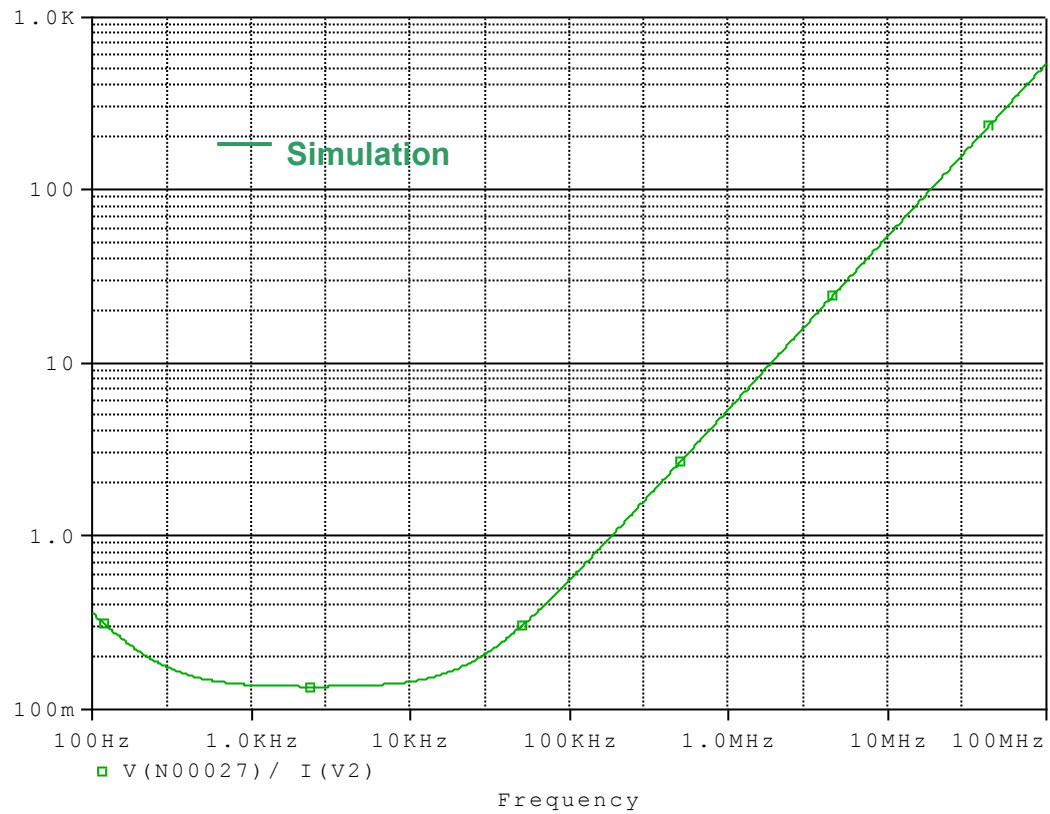
	Measurement	
R1		
C1		
L1		

Equivalent circuit

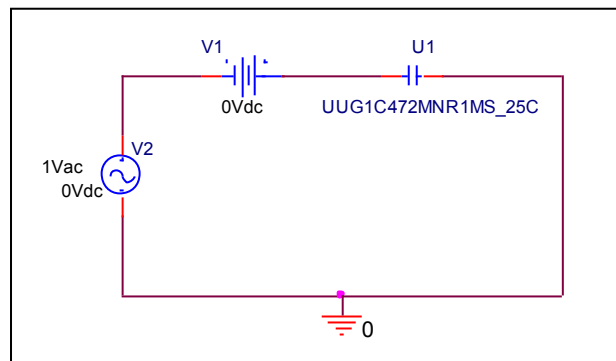


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (Ω)		% Error
	Measurement	Simulation	
100	357.074m	362.362m	1.481
1K	135.213m	138.607m	2.510
10K	137.437m	144.881m	5.417
100K	565.303m	557.639m	- 1.356
1M	5.634	5.414	- 3.909
10M	53.780	54.112	0.618