

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: UUG0J103MNR1MS
MANUFACTURER: Nichicon
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

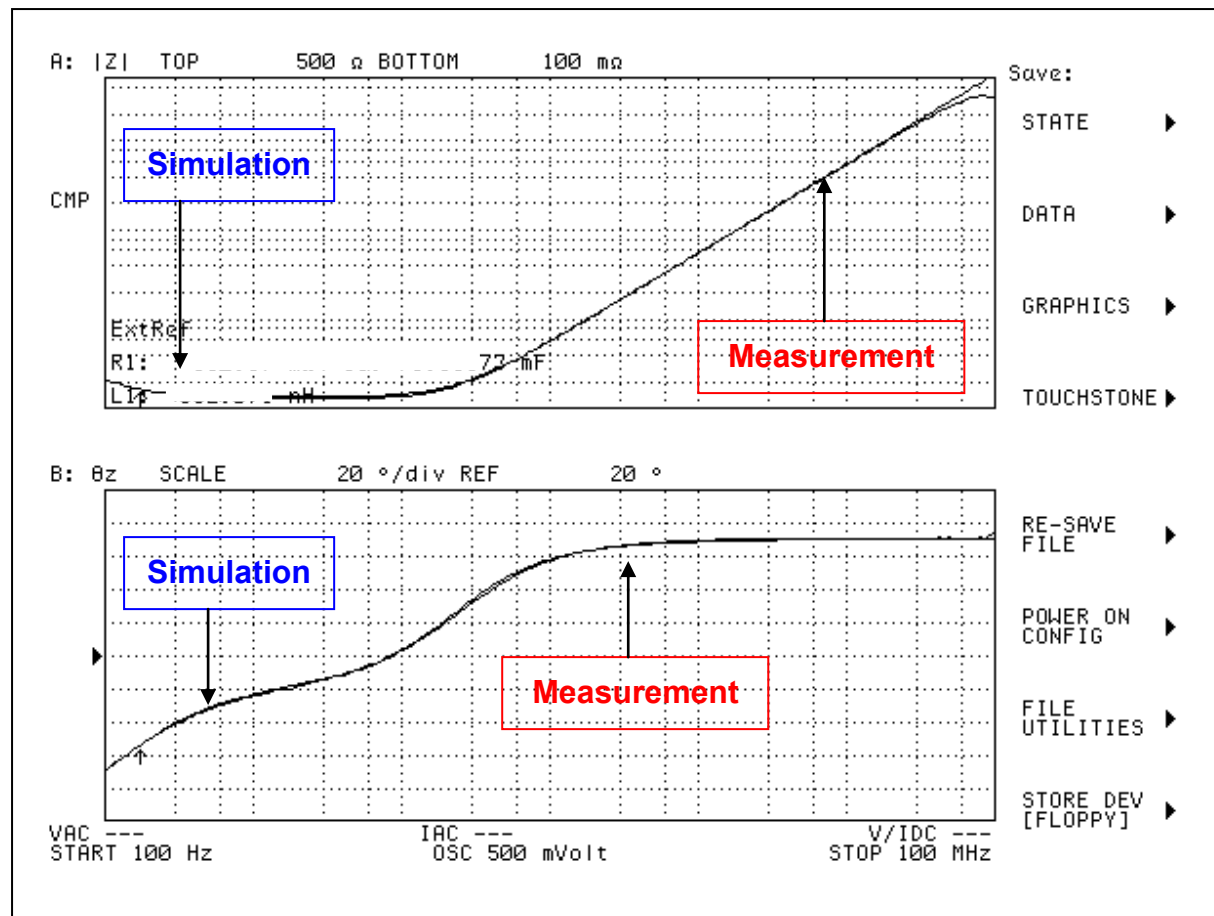
Optimization of Simulation

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

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

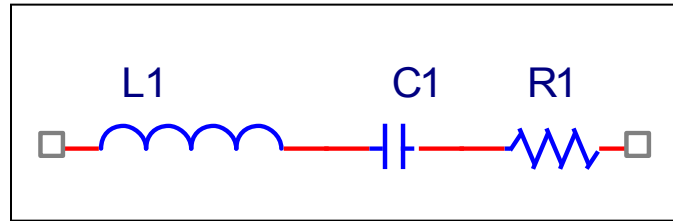
Attention)

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



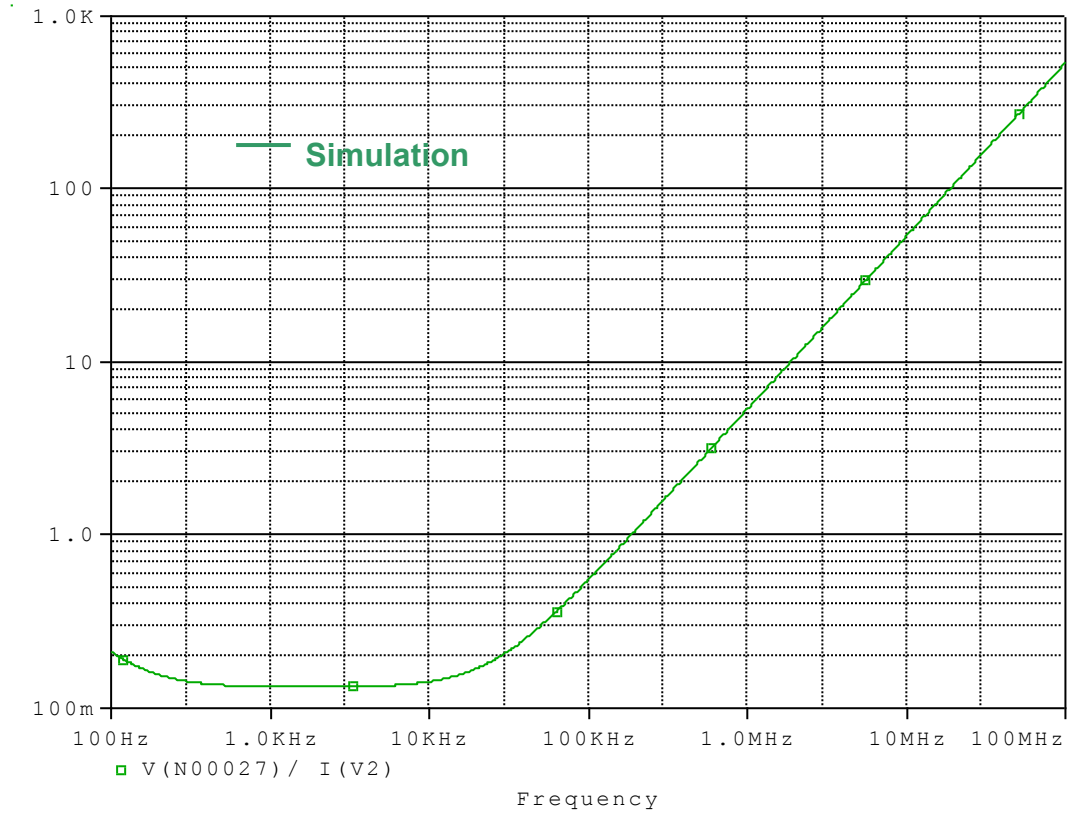
	Measurement	
R1		m Ω
C1		mF
L1		nH

Equivalent circuit

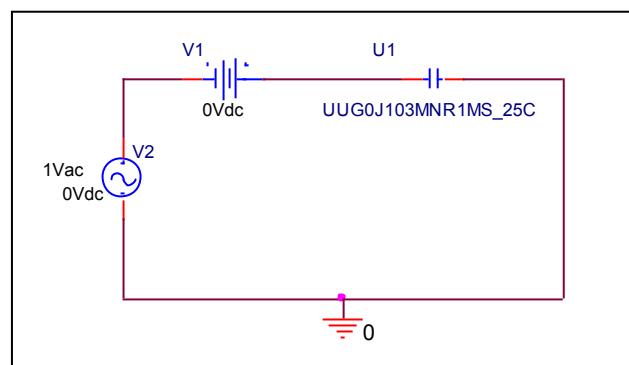


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (Ω)		% Error
	Measurement	Simulation	
100	211.581m	212.510m	0.439
1K	128.046m	133.052m	3.910
10K	135.063m	142.355m	5.399
100K	556.713m	551.347m	- 0.964
1M	5.561	5.355	- 3.712
10M	53.186	53.534	0.653