

# Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC  
PART NUMBER: LXZ25VB2200MK35  
MANUFACTURER: Nippon Chemi-Con Corporation  
THERMAL: Ta= 80C (degree)



**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

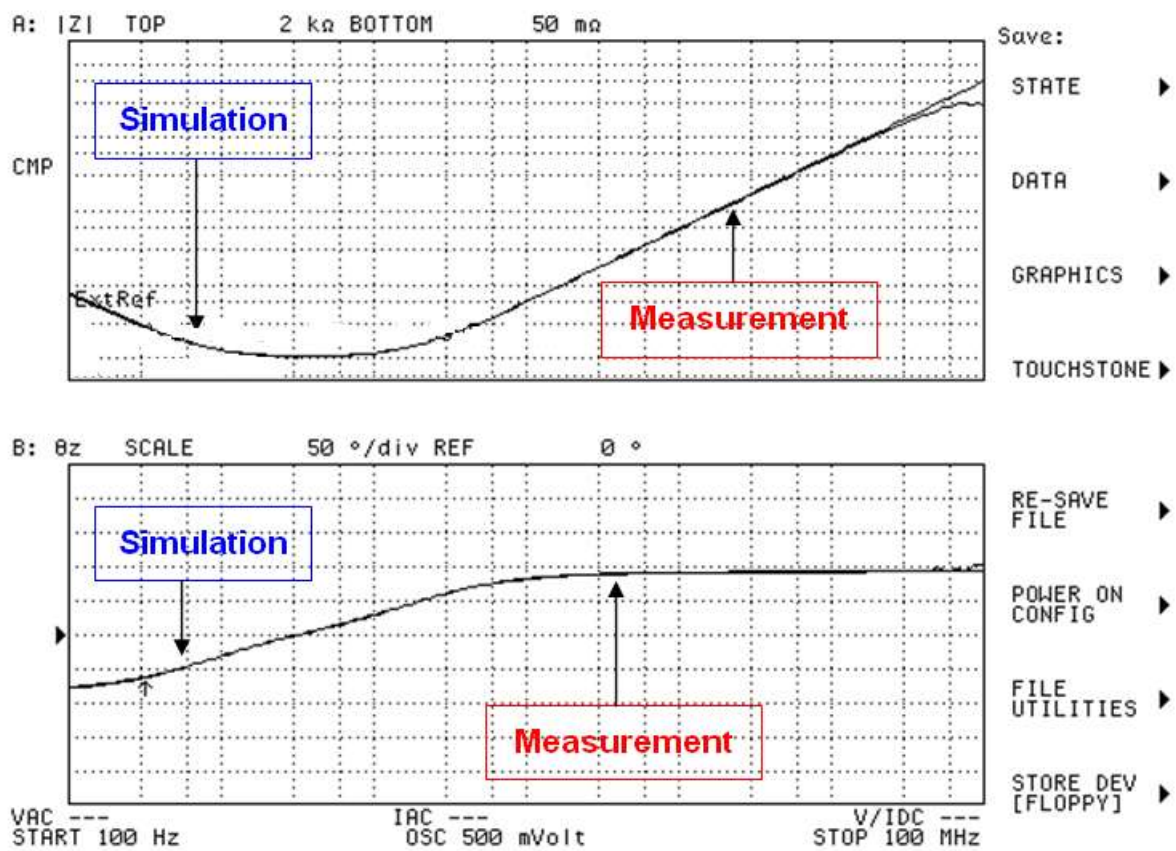
### Optimization of Simulation

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

Frequency vs.  $|Z|$  and Frequency vs.  $\theta_z$  Characteristic

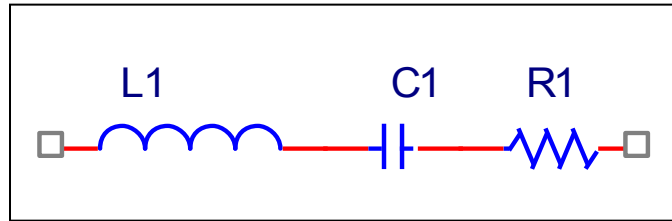
Attention)

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



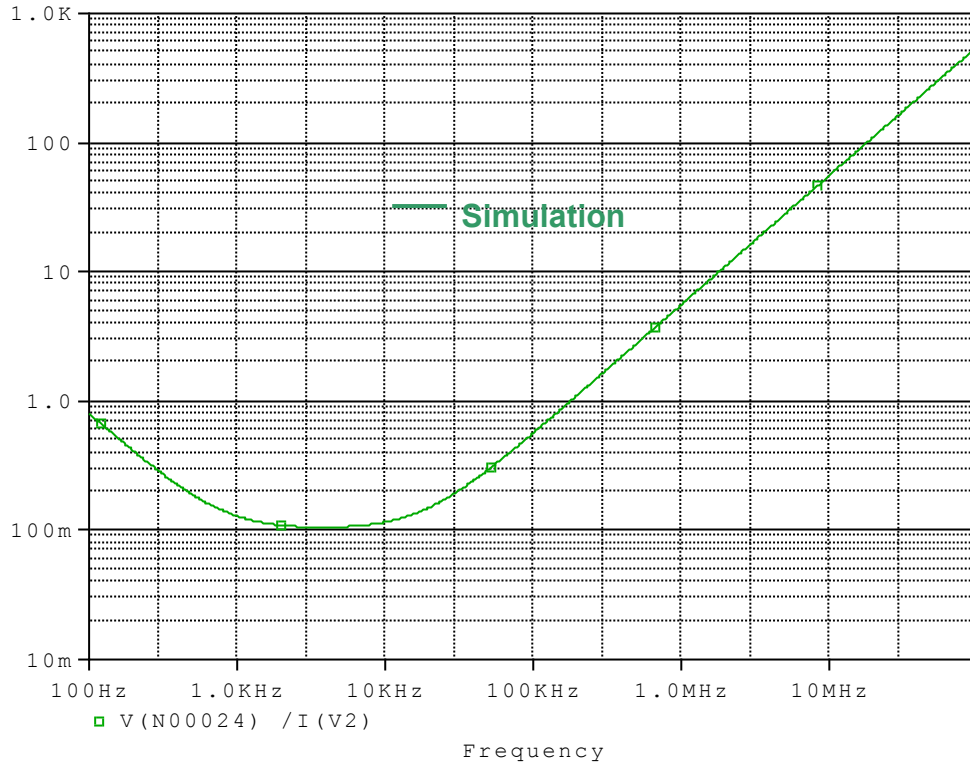
	Measurement	
R1		
C1		
L1		

Equivalent circuit

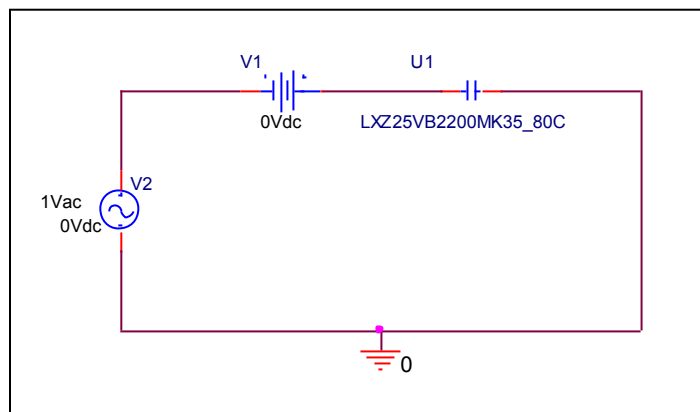


# Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI ( $\Omega$ )		% Error
	Measurement	Simulation	
100	756.714m	802.378m	6.035
1K	119.938m	128.853m	7.433
10K	109.411m	115.789m	5.830
100K	566.165m	566.560m	0.070
1M	5.677	5.576	- 1.782
10M	54.178	55.745	2.892