

# Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC  
PART NUMBER: LXZ25VB3300ML30  
MANUFACTURER: Nippon Chemi-Con Corporation  
THERMAL: Ta= 80C (degree)



**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

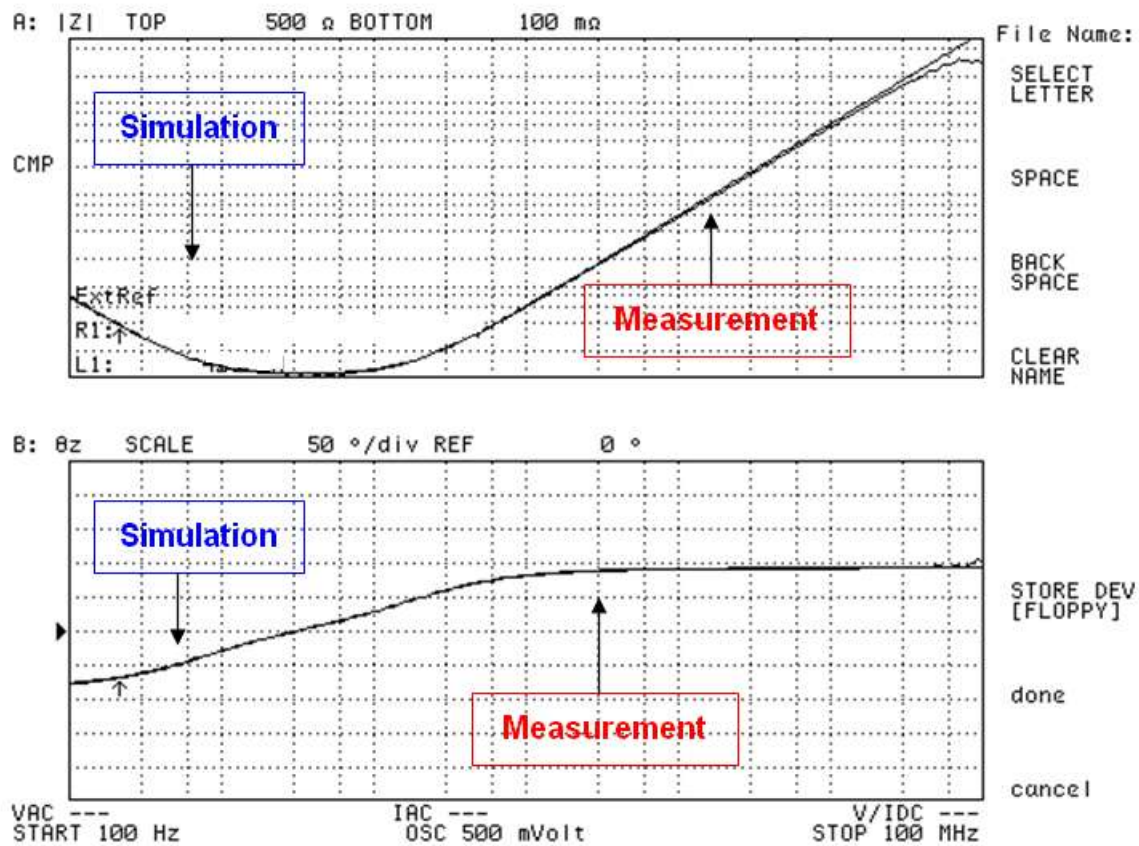
### Optimization of Simulation

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

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

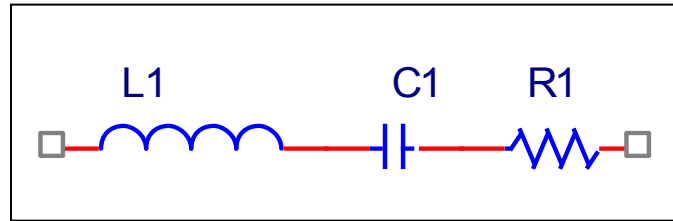
Attention)

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



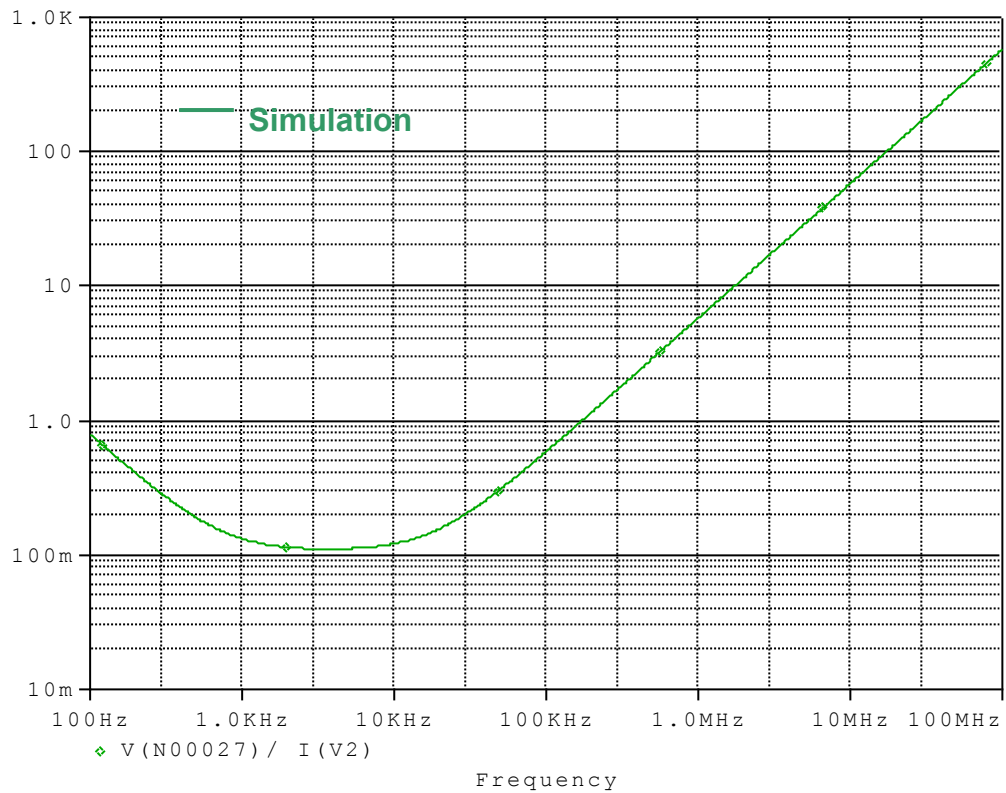
	Measurement	
R1		
C1		
L1		

Equivalent circuit

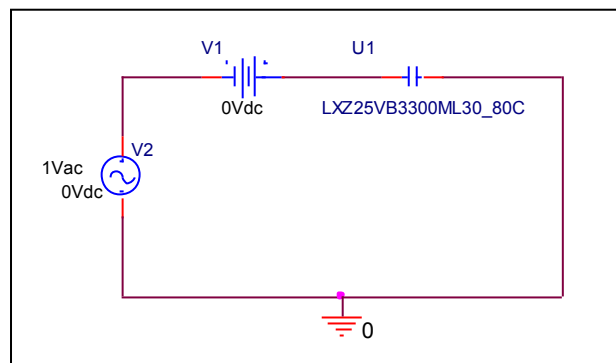


## Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



# Simulation result

Frequency (Hz)	IZI ( $\Omega$ )		% Error
	Measurement	Simulation	
100	748.684m	789.001m	5.385
1K	127.698m	132.328m	3.626
10K	117.349m	121.567m	3.594
100K	569.681m	588.683m	3.336
1M	5.684	5.791	1.867
10M	54.184	57.895	6.849