

# Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC  
PART NUMBER: LXZ25VB3300ML30  
MANUFACTURER: Nippon Chemi-Con Corporation  
THERMAL: Ta= 25C (degree)



**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

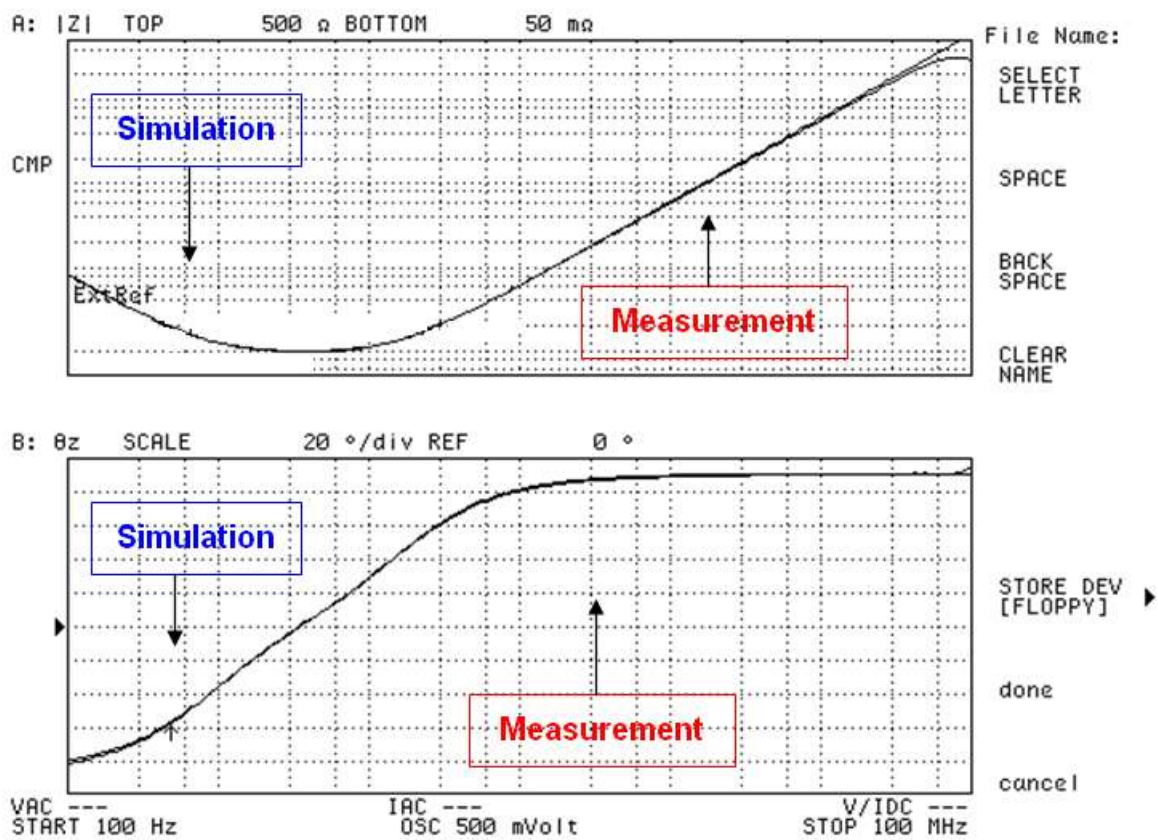
### Optimization of Simulation

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

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

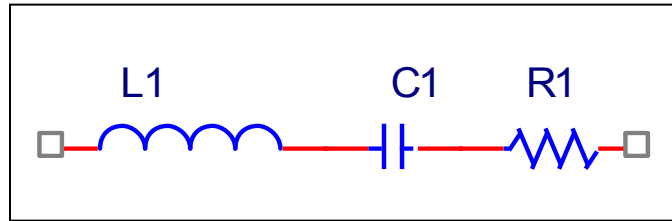
Attention)

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



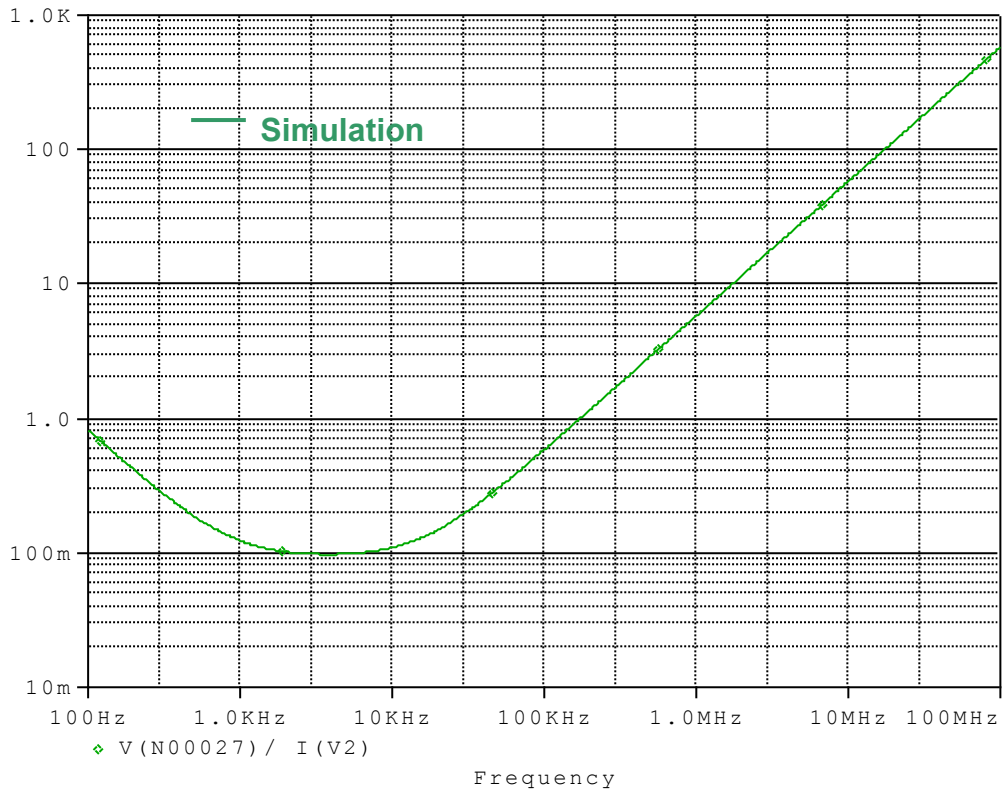
	Measurement	
R1		
C1		
L1		

Equivalent circuit

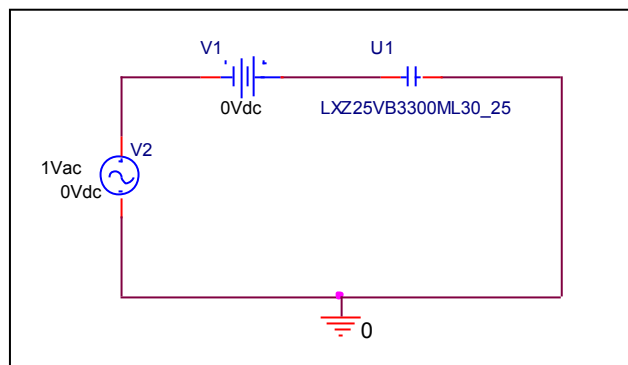


# Frequency vs. IZI Characteristic

## Circuit Simulation result



## Evaluation Circuit



Simulation result

Frequency (Hz)	Z  ( $\Omega$ )		% Error
	Measurement	Simulation	
100	792.176m	816.726m	3.099
1K	121.397m	123.173m	1.463
10K	107.481m	109.439m	1.821
100K	578.017m	586.820m	1.523
1M	5.806	5.796	- 0.176
10M	55.516	57.949	4.382