

# Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC  
PART NUMBER: LXZ25VB220MH12  
MANUFACTURER: Nippon Chemi-Con Corporation  
THERMAL: Ta= 40C (degree)



**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

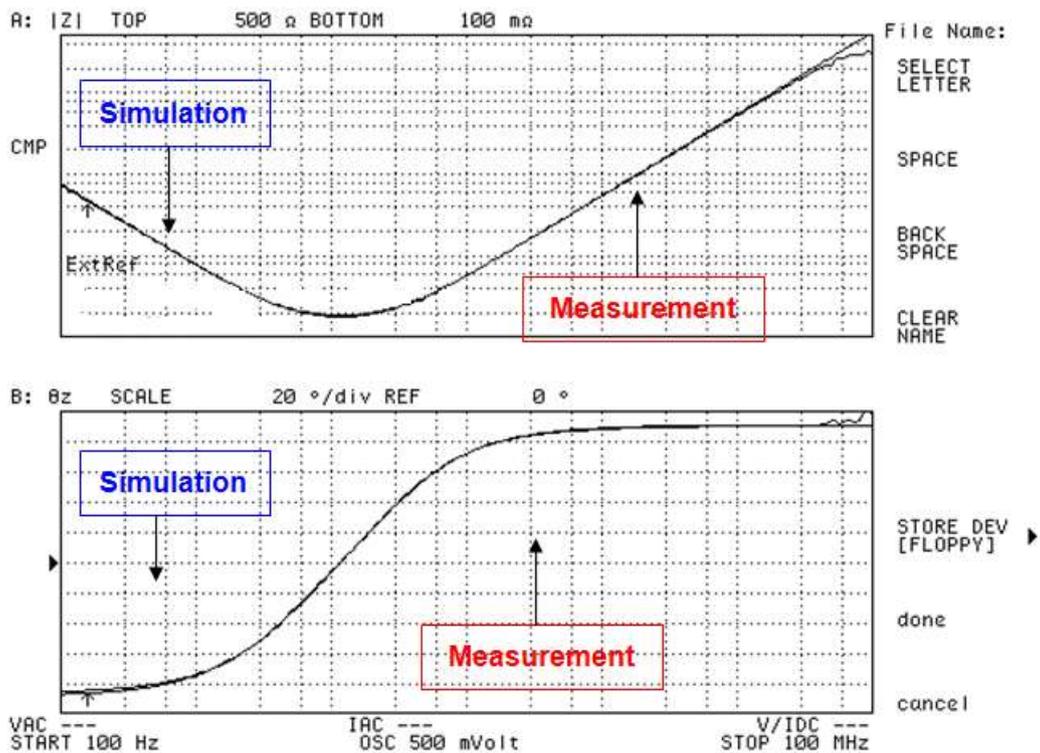
### Optimization of Simulation

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

Frequency vs.  $|Z|$  and Frequency vs.  $\theta z$  Characteristic

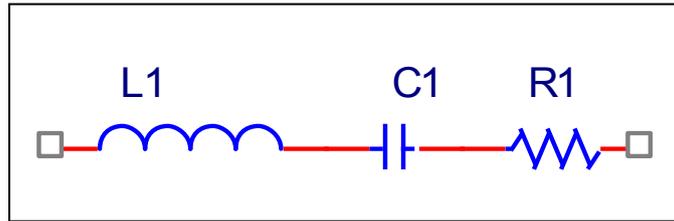
Attention)

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



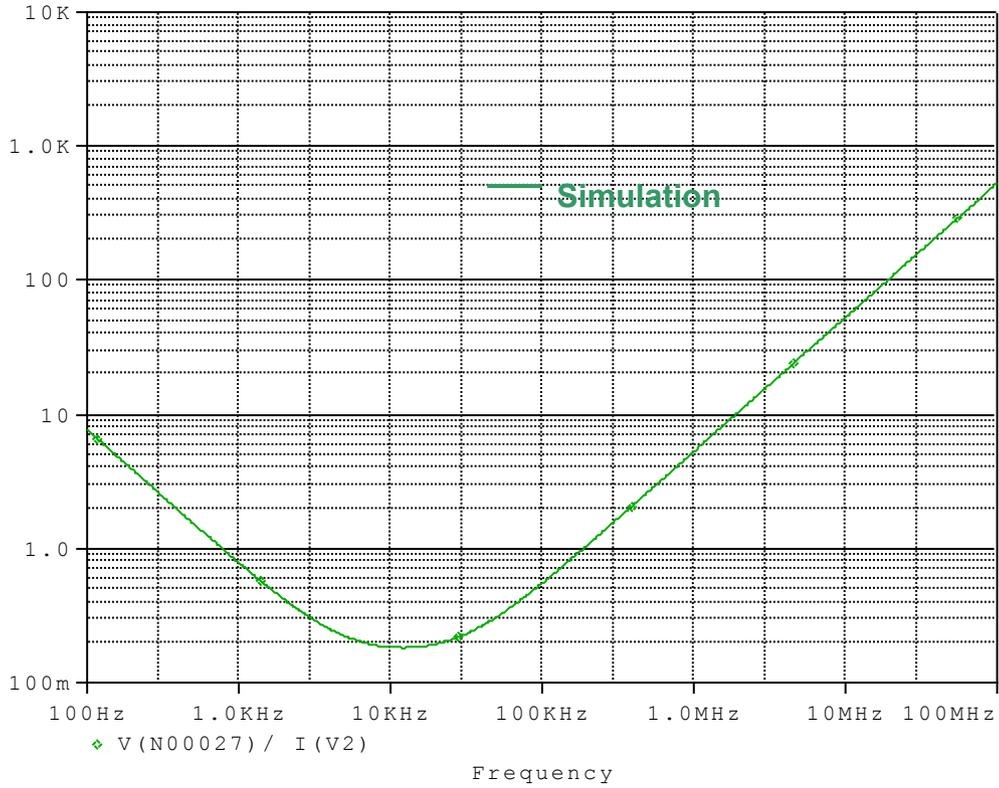
	Measurement	
R1		
C1		
L1		

Equivalent circuit

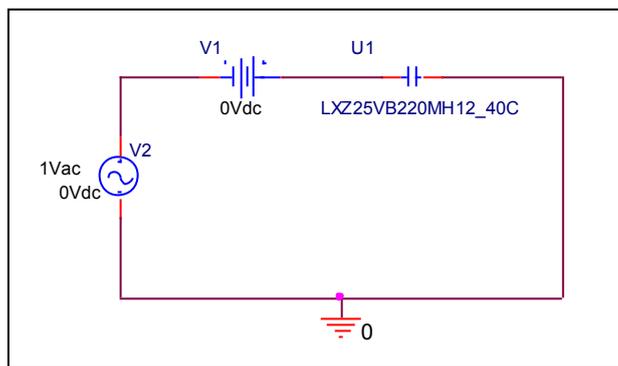


# Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	Z  ( $\Omega$ )		% Error
	Measurement	Simulation	
100	7.218	7.681	6.420
1K	737.869m	784.092m	6.264
10K	170.279m	183.681m	7.870
100K	548.291m	552.046m	0.685
1M	5.433	5.291	- 2.624
10M	51.861	52.882	1.969