Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: DE1B3KX331KA5B
MANUFACTURER: MURATA
REMARK: TA=80C

Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

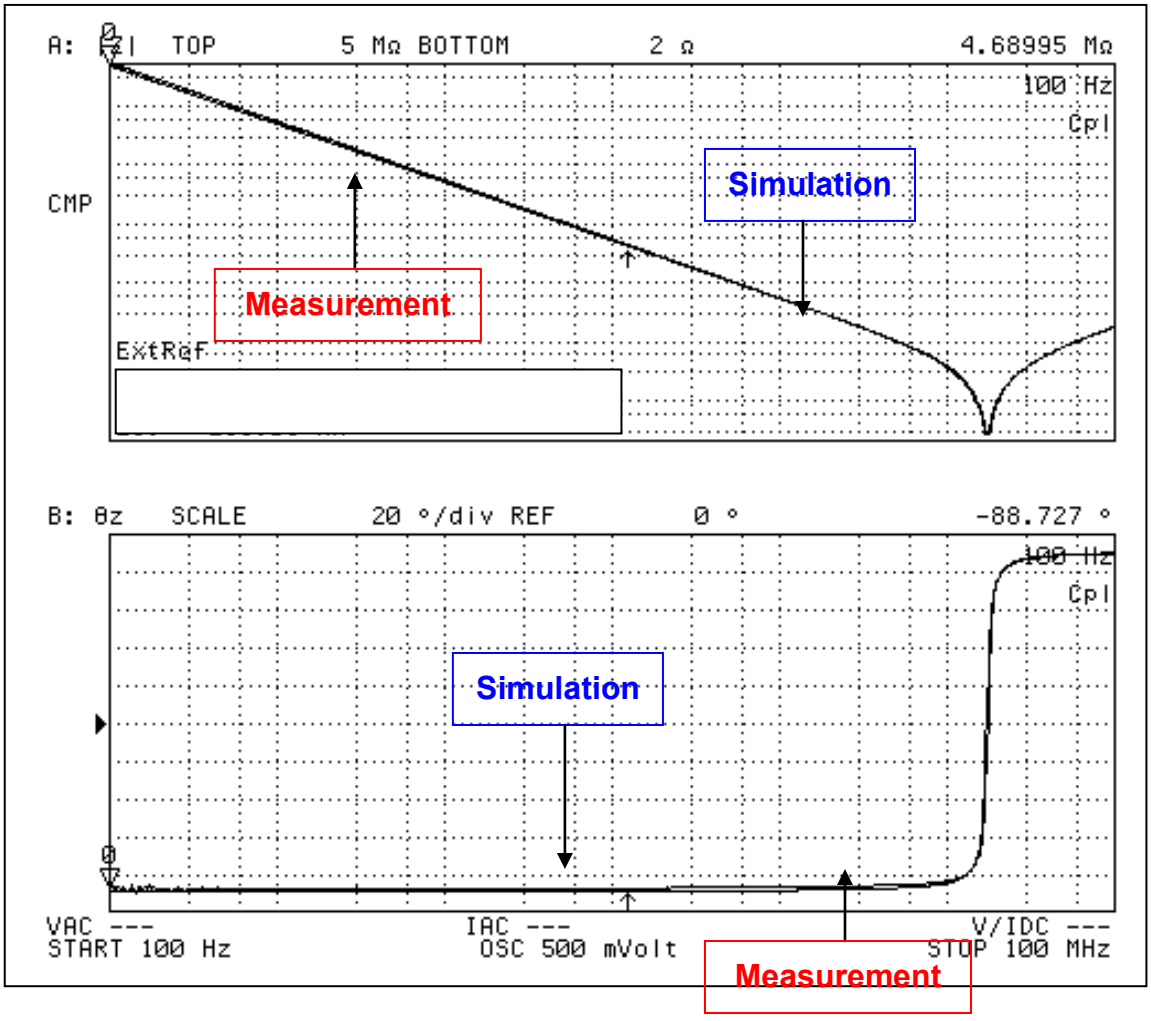
Optimization of Simulation

Range of adjustment Frequency:100Hz to100M(Hz)

Frequency vs.|Z| and Frequency vs. θz Characteristic

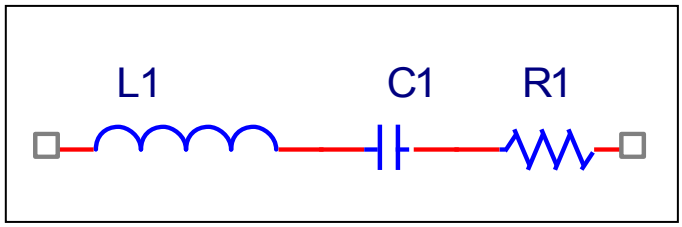
Attention)

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



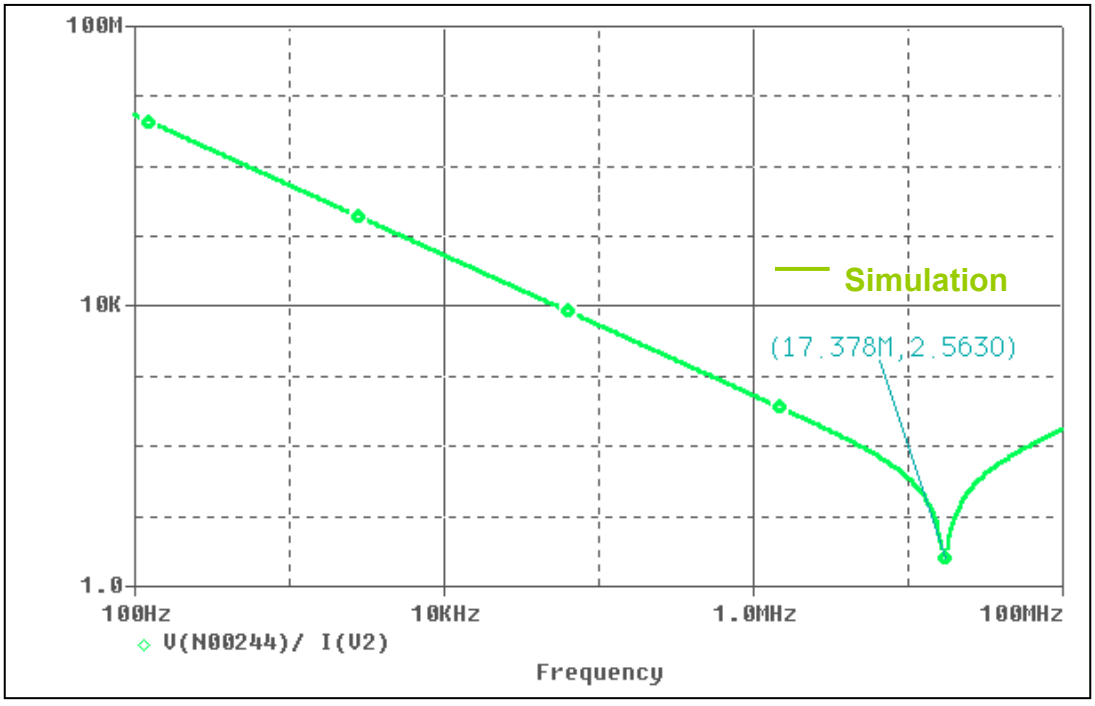
L1	
C1	
R1	

Equivalent circuit

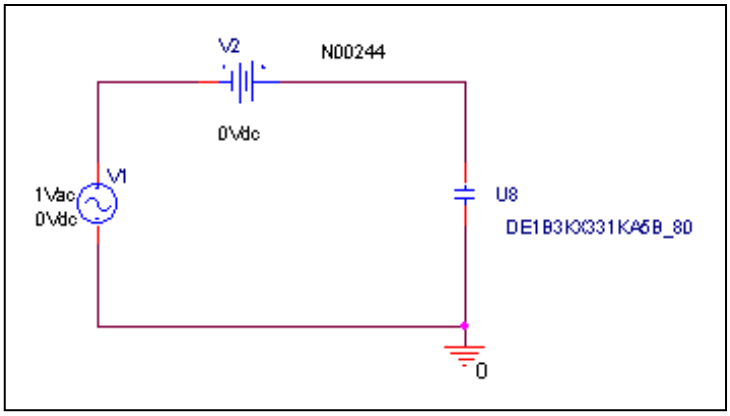


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	4.88803M	5.3712M	9.8848
1K	481.594K	537.116K	11.5288
10K	49.6261K	53.712K	8.2334
100K	5.09605K	5.371K	5.3954
1M	528.27	535.343	1.3389
10M	38.0464	36.017	5.3340
100M	168.616	172.512	2.3106
100	4.88803	5.3712	9.8848

	Measurement	Simulation	%Error
FSRF(Hz)	17.78279M	17.378M	2.2763
IZI (ohm)	2.54853	2.5630	0.5678