

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: ECKATS472ME
MANUFACTURER: PANASONIC
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

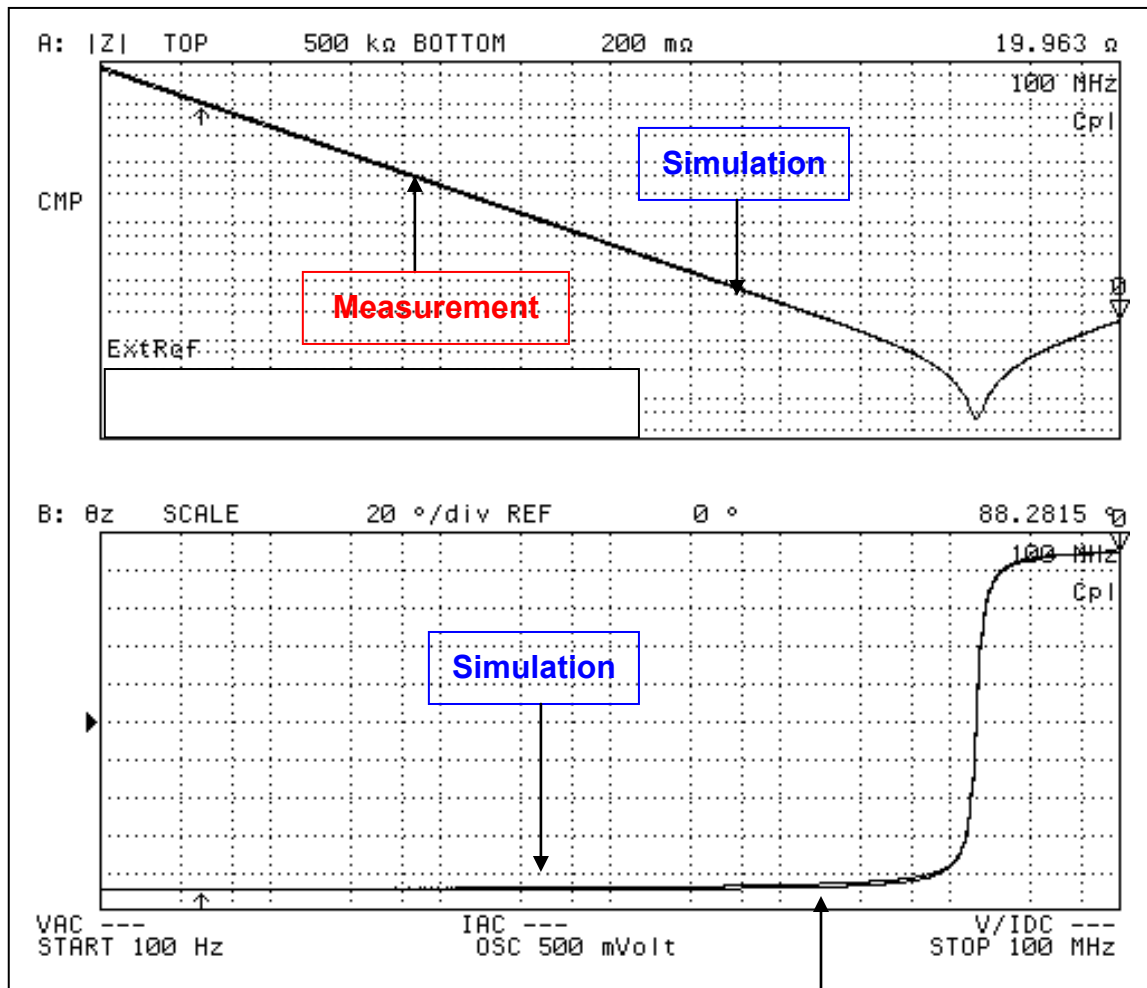
Optimization of Simulation

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

Frequency vs. $|Z|$ and Frequency vs. θ_z Characteristic

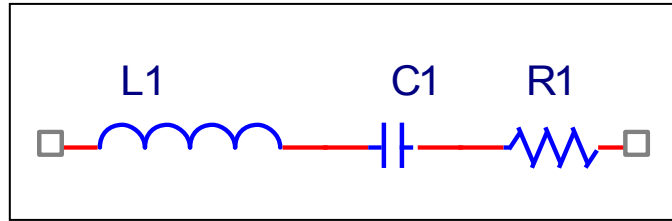
Attention)

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



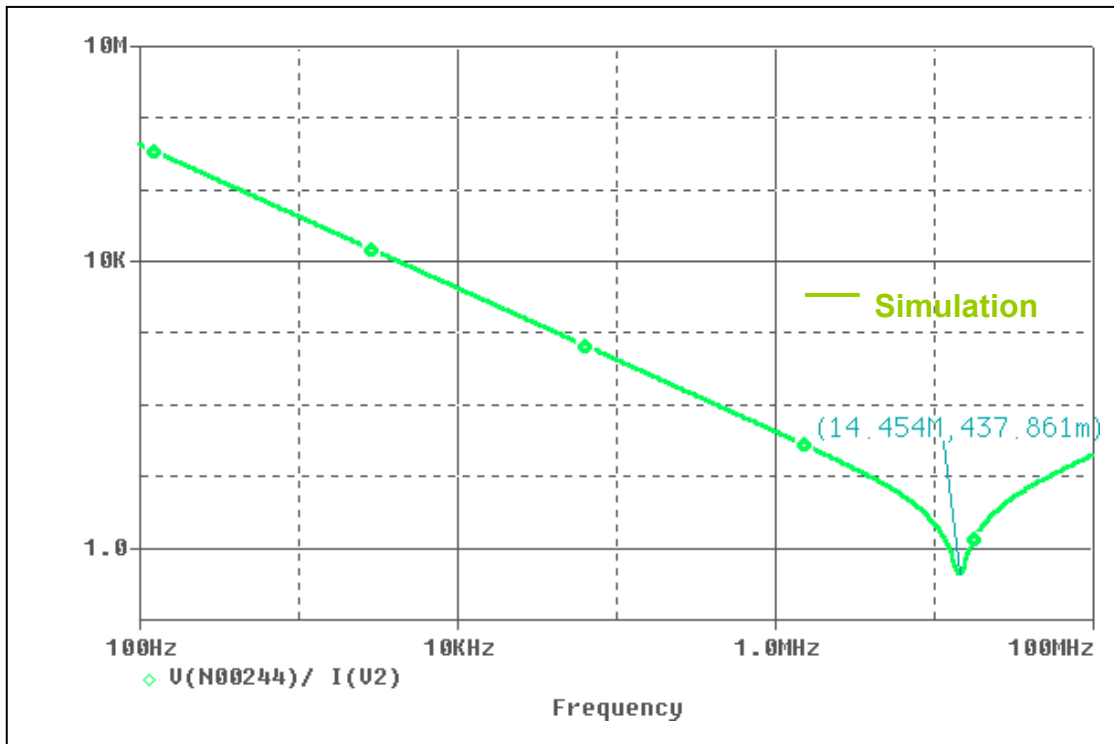
L1	
C1	
R1	

Equivalent circuit

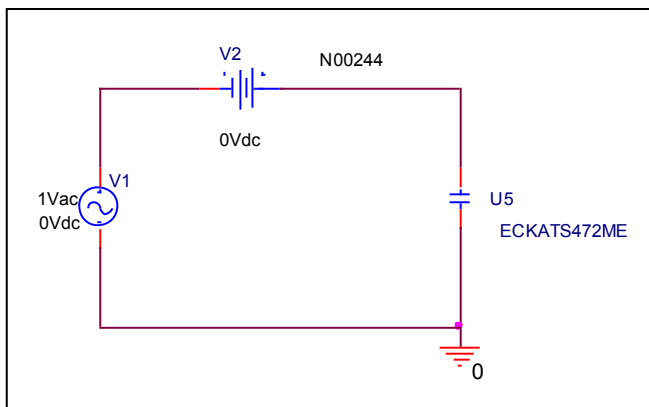


Frequency vs. IZI Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	383.056K	430.350K	12.3465
1K	38.5338K	43.035K	11.6812
10K	3.87959K	4.3035K	10.9267
100K	392.176	430.331	9.7291
1M	40.2132	42.847	6.5496
10M	2.41563	2.4459	1.2531
100M	18.5647	18.5760	0.0609

	Measurement	Simulation	%Error
FSRF(Hz)	15.488M	15.136M	2.2727
IZI (ohm)	455.557m	454.630m	0.2035