

Device Modeling Report

COMPONENTS: CAPACITOR/CERAMIC
PART NUMBER: ECKATS332ME
MANUFACTURER: PANASONIC
REMARK: TA=40C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

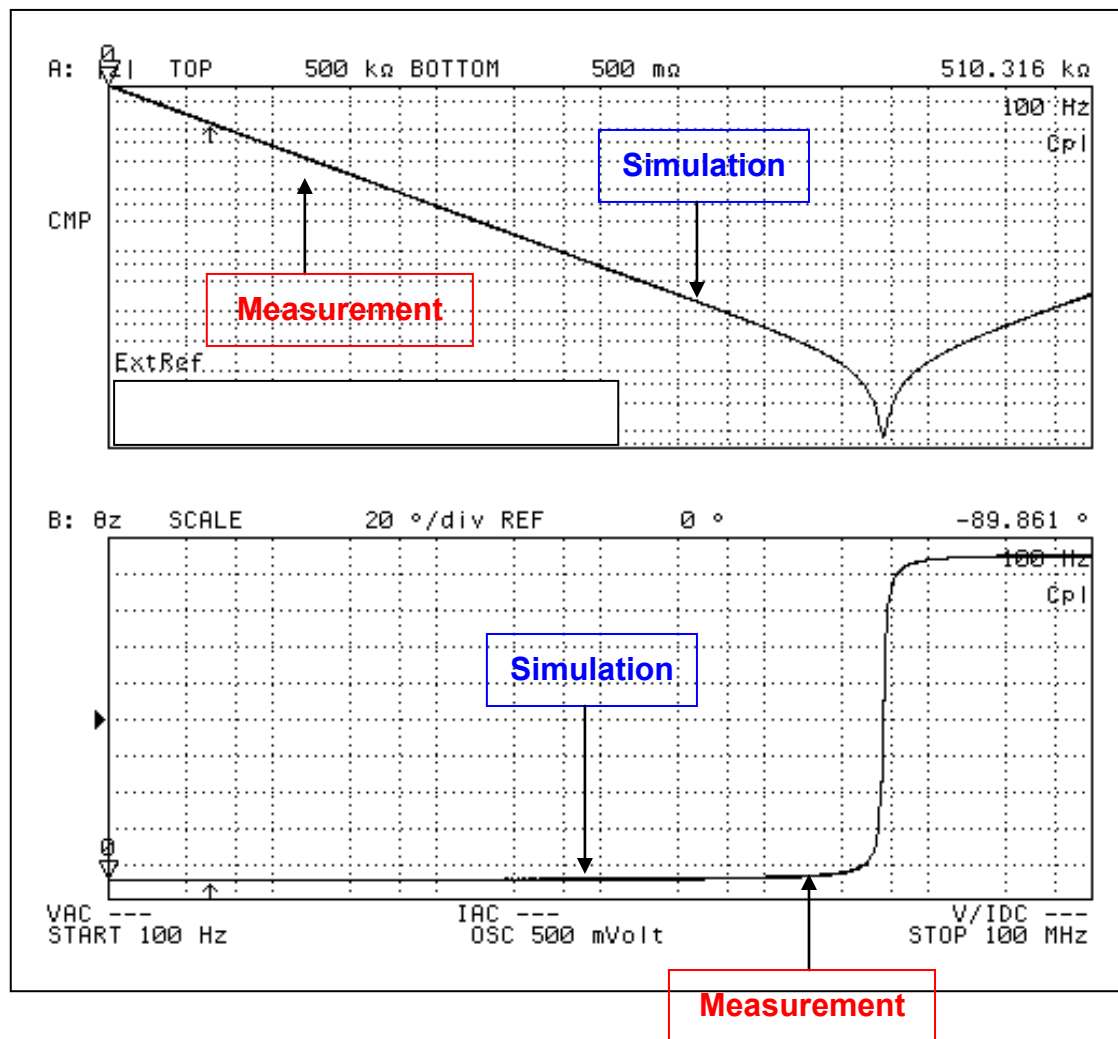
Optimization of Simulation

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)

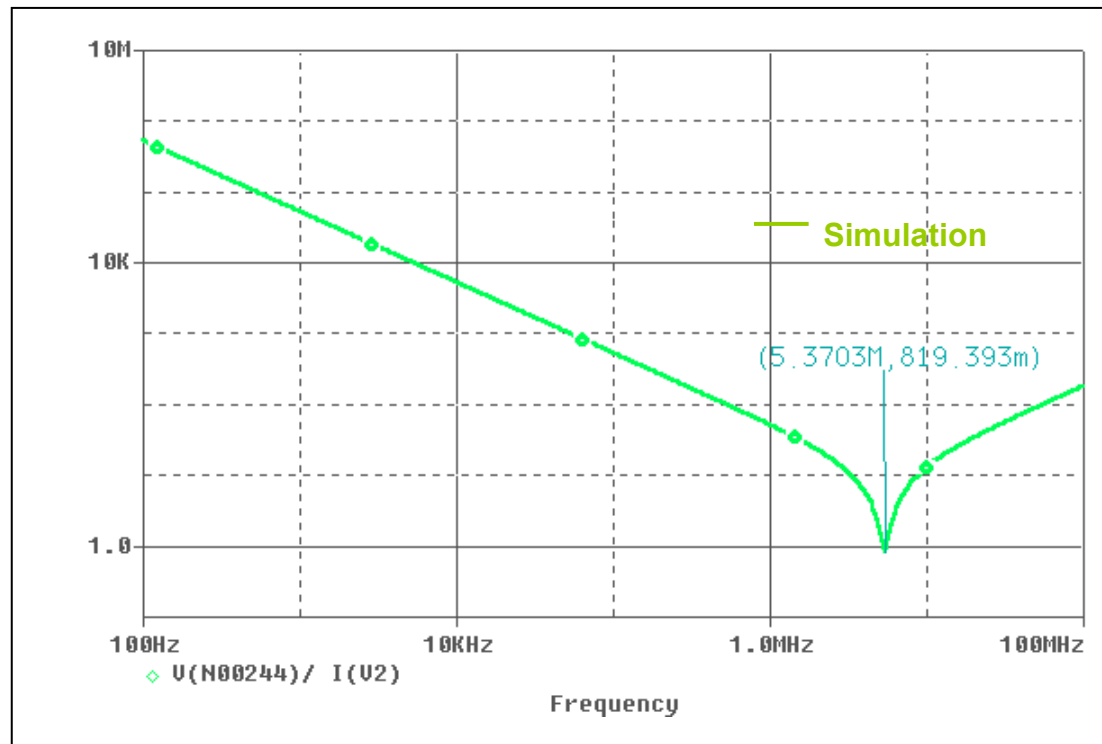


Equivalent circuit

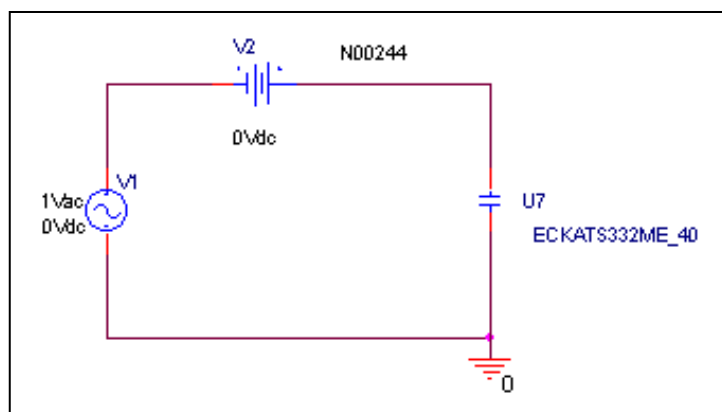


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	509.901K	535.196K	4.9608
1K	51.2565K	53.520K	4.4160
10K	5.15441K	5.3519K	3.8315
100K	519.289	535.014	3.0282
1M	50.9661	51.700	1.4400
10M	12.9672	12.933	0.2637
100M	167.096	182.069	8.9607

	Measurement	Simulation	%Error
FSRF(Hz)	5.3703M	5.495M	2.3220
IZI (ohm)	819.393m	807.461m	1.4562