

Device Modeling Report

COMPONENTS: CAPACITOR/ CERAMIC
PART NUMBER: DE1E3KX332MA5B
MANUFACTURER: MURATA
REMARK: TA=25C



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

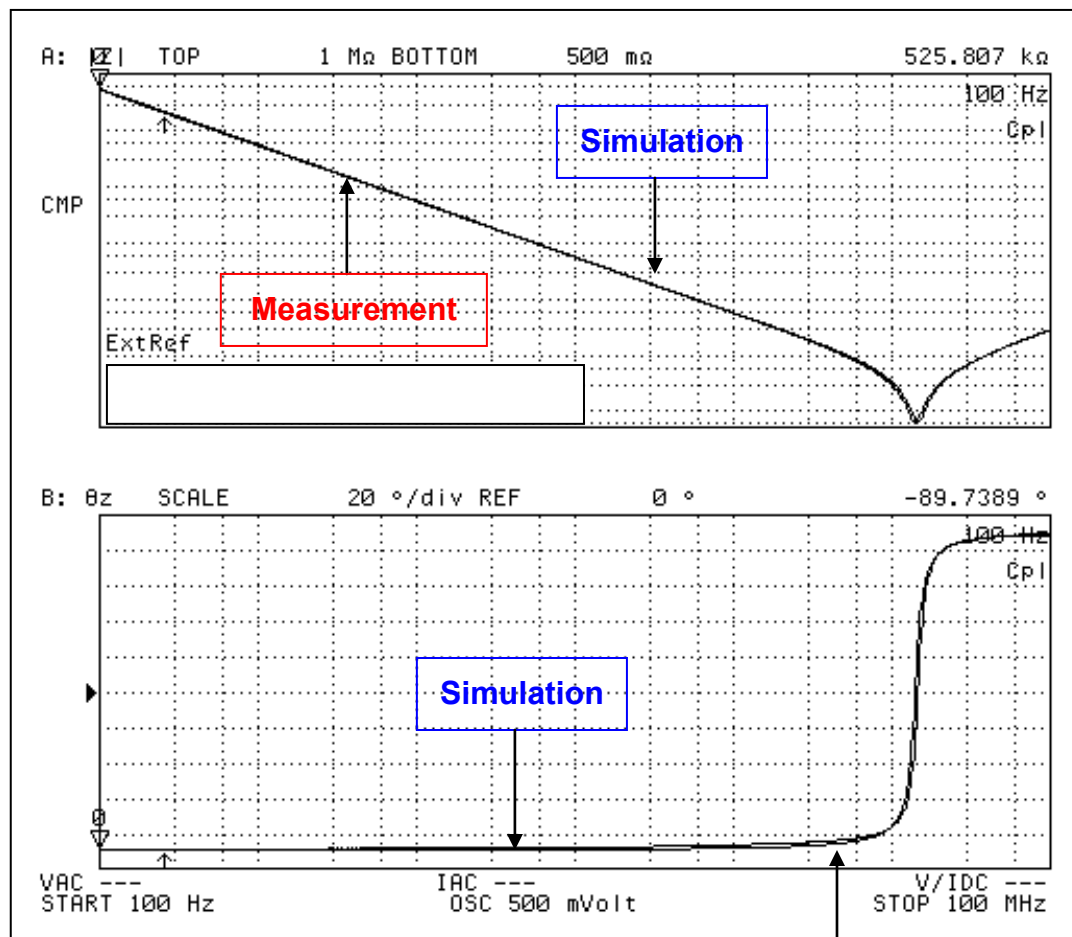
Optimization of Simulation

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)



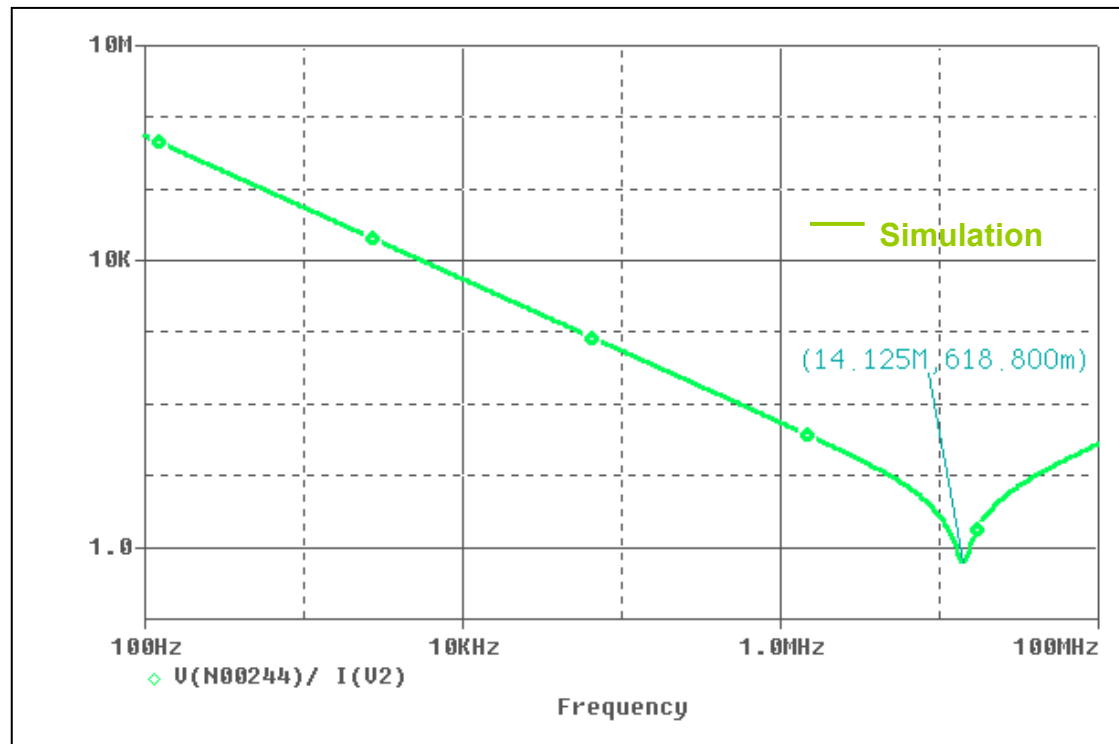
		Measurement
L1		
C1		
R1		

Equivalent circuit

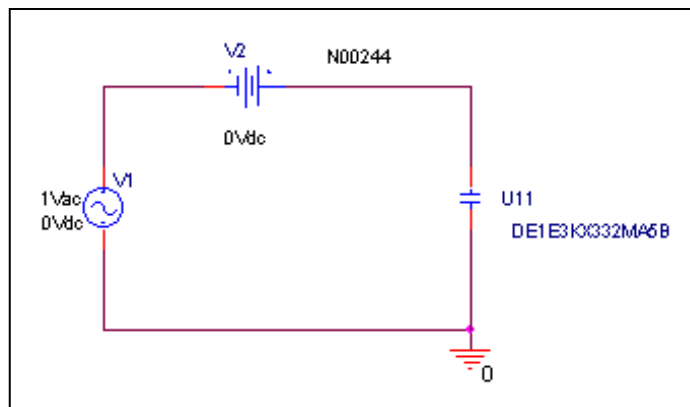


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
100	526.17K	551.744K	4.8604
1K	52.8568K	55.174K	4.3839
10K	5.32737K	5.5174K	3.5671
100K	540.788	551.717	2.0209
1M	55.7361	54.902	1.4965
10M	3.29901	2.8288	14.2531
100M	26.6205	27.027	1.5270

	Measurement	Simulation	%Error
FSRF(Hz)	14.706M	14.1250M	3.9508
IZI (ohm)	621.149m	618.800m	0.3782