# **Device Modeling Report**

COMPONENTS: CAPACITOR/ ELECTROLYTIC PART NUMBER: ECEAOJKG221 MANUFACTURER: Panasonic THERMAL: Ta= 25C (degree)



Bee Technologies Inc.

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#### Theory: Auto Balancing Bridge Method

#### **Optimization of Simulation**

Range of adjustment Frequency:100 Hz to100M(Hz) Frequency vs. |Z| and Frequency vs. θz 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



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## Simulation result

Frequency (Hz)	ΙΖΙ (Ω)		% Error
	Measurement	Simulation	/º EITOI
100	7.786	8.574	10.123
1K	955.231m	987.620m	3.391
10K	487.588m	502.742m	3.108
100K	693.207m	724.782m	4.555
1M	5.967	5.339	- 10.525
10M	53.359	53.167	- 0.361