Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ680
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA

Bee Technologies Inc.

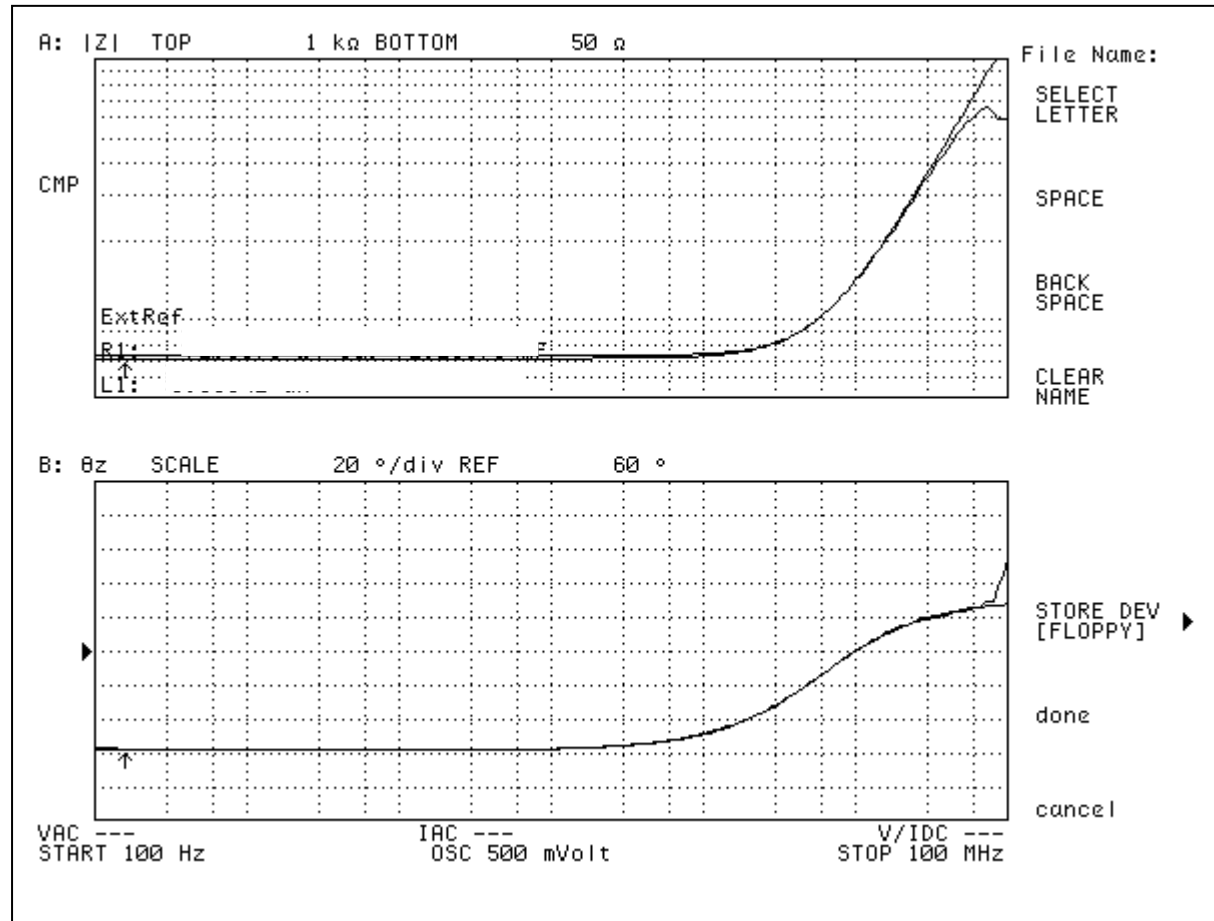# Theory: Auto Balancing Bridge Method

Optimization of Simulation
Range of adjustment Frequency:100 to100M(Hz)
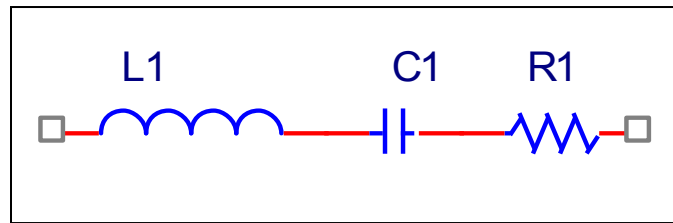Frequency vs.|Z| and Frequency vs. θ z Characteristic

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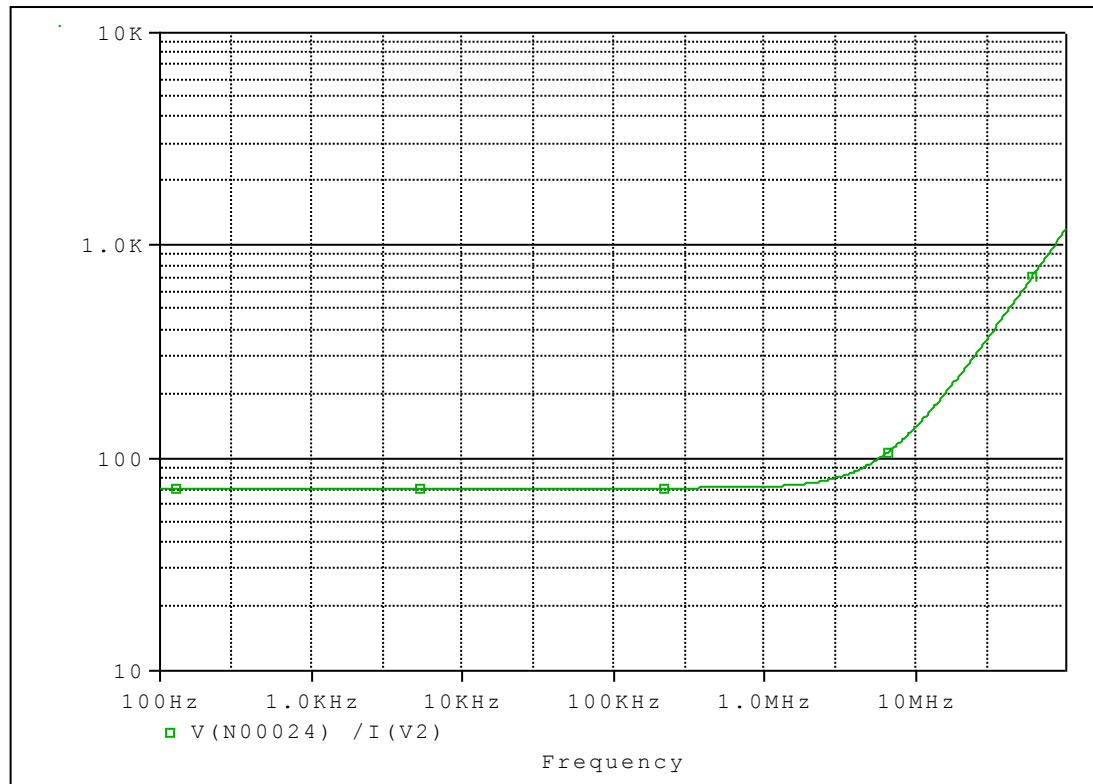*Please use SPICE MODEL within the range from 100 to 100M(Hz)*

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A: |Z|   TOP        1 kΩ BOTTOM       50 Ω              File Name:

                                                         SELECT
                                                         LETTER

CMP                                                      SPACE

                                                         BACK
                                                         SPACE
      ExtRef
      R1:                                                CLEAR
      L1:                                                NAME


B: θz    SCALE      20 °/div REF       60 °


                                                         STORE DEV  ▶
                                                         [FLOPPY]

                                                         done

                                                         cancel
VAC ---                  IAC ---                V/IDC ---
START 100 Hz             OSC 500 mVolt          STOP 100 MHz
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Measurement		
R1		
L1		
C1		

Equivalent circuit

L1   C1   R1

Frequency vs. |Z| Characteristic

V(N00024) /I(V2)

Frequency

Evaluation Circuit

R1
1k

V1
0Vdc

U1
ERF5AJ680_150C

V2
1Vac
0Vdc

0
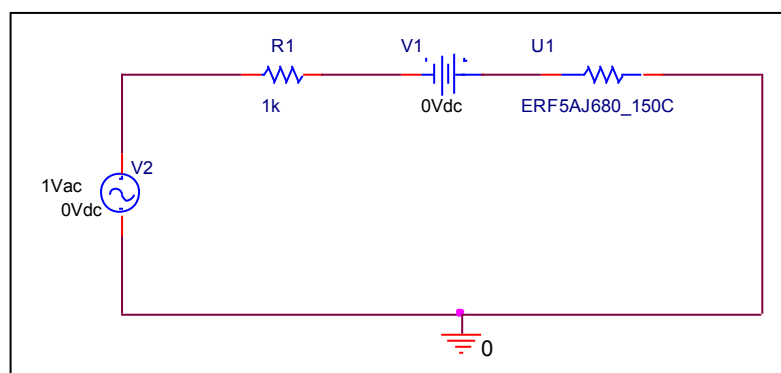
Simulation Result

Frequency(HZ)	|Z|(ohm) Measurement	|Z|(ohm) Circuit Simulation	%Error
100	70.692	72.401	2.418
1K	70.680	72.398	2.430
10K	70.647	72.398	2.479
100K	70.722	72.407	2.383
1M	72.243	73.372	1.563
10M	141.273	139.426	1.307