Device Modeling Report

COMPONENTS: Carbon Resistor
PART NUMBER: R4K7
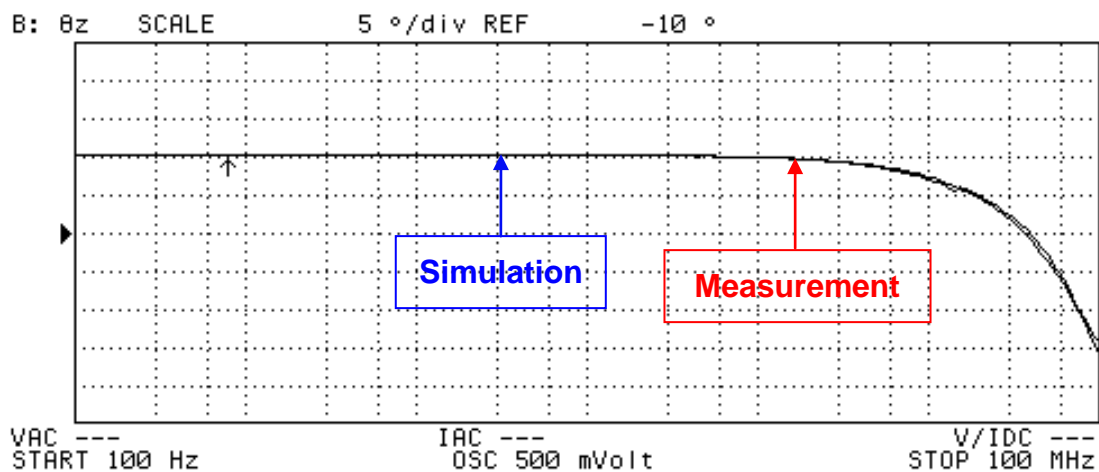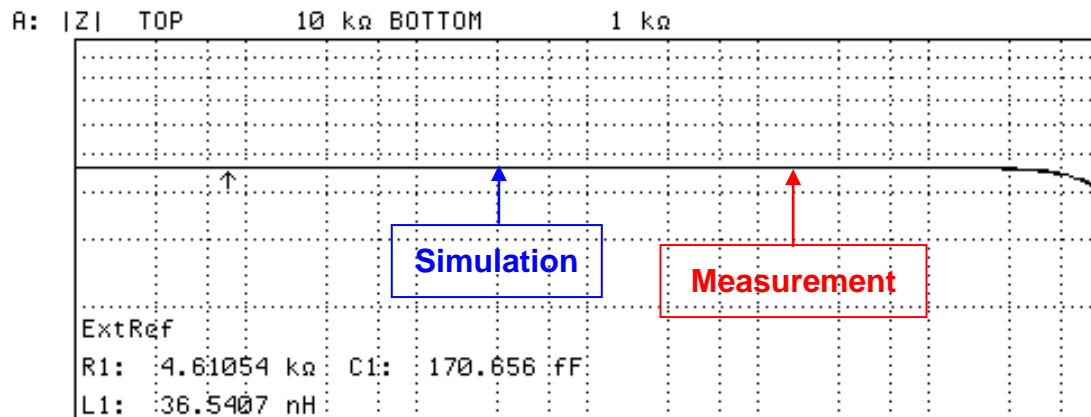MANUFACTURER: Unknown

Bee Technologies Inc.

Measurement

Optimization of Simulation

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

Frequency vs. |Z|

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


```
A: |Z|  TOP        10 kΩ BOTTOM        1 kΩ
```

Simulation   Measurement

```
ExtRef
R1:  4.61054 kΩ   C1:  170.656 fF
L1:  36.5407 nH
```



```
B: θz   SCALE        5 °/div REF        -10 °
```

Simulation   Measurement

```
VAC ---                IAC ---                  V/IDC ---
START 100 Hz           OSC 500 mVolt            STOP 100 MHz
```
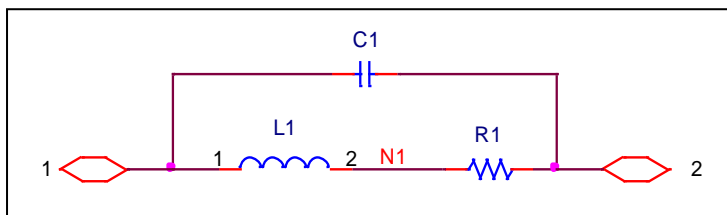
L1= 36.5407nH

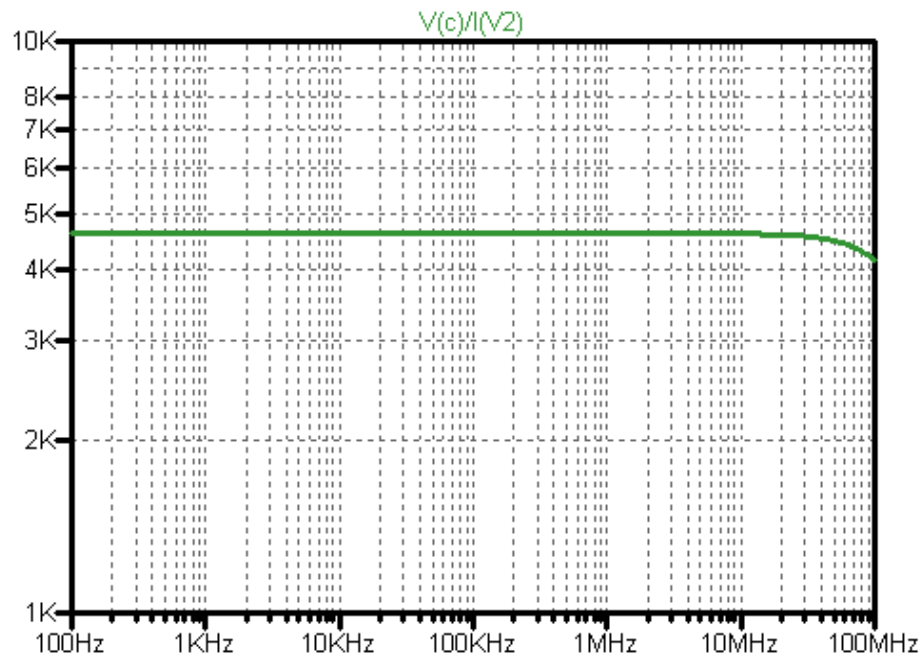C1= 170.656fF

R1= 4.61054kΩ

SPICE MODEL

```
*$
* PART NUMBER: R4K7
* COMPONENTS: Carbon resistor
* MANUFACTURER: Unknown
* All Rights Reserved Copyright (C) Bee Technologies Inc. 2012
.SUBCKT R4k7 1 2
L_L1    1    N1    36.5407n
C_C1    1    2     170.656f
R_R1    N1   2     4.61054k
.ENDS
*$
```
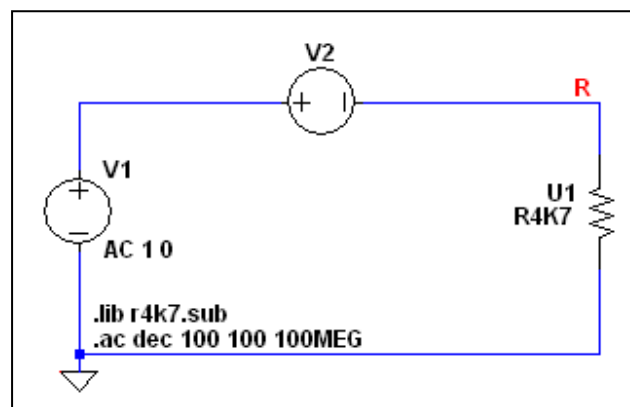
Equivalent Circuit

Frequency vs. |Z| Characteristic

Evaluation circuit

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Comparison Graph