

Device Modeling Report

COMPONENTS:MAGNETIC CORE
PART NUMBER:4A11
MANUFACTURER:FERROXCUBE



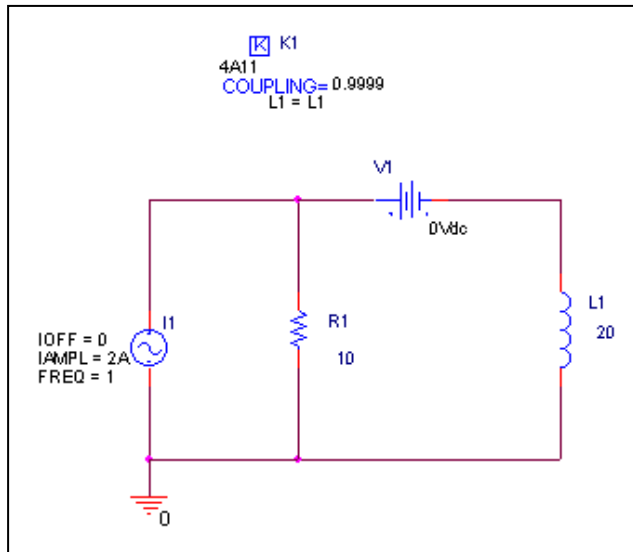
Bee Technologies Inc.

MAGNETIC CORE

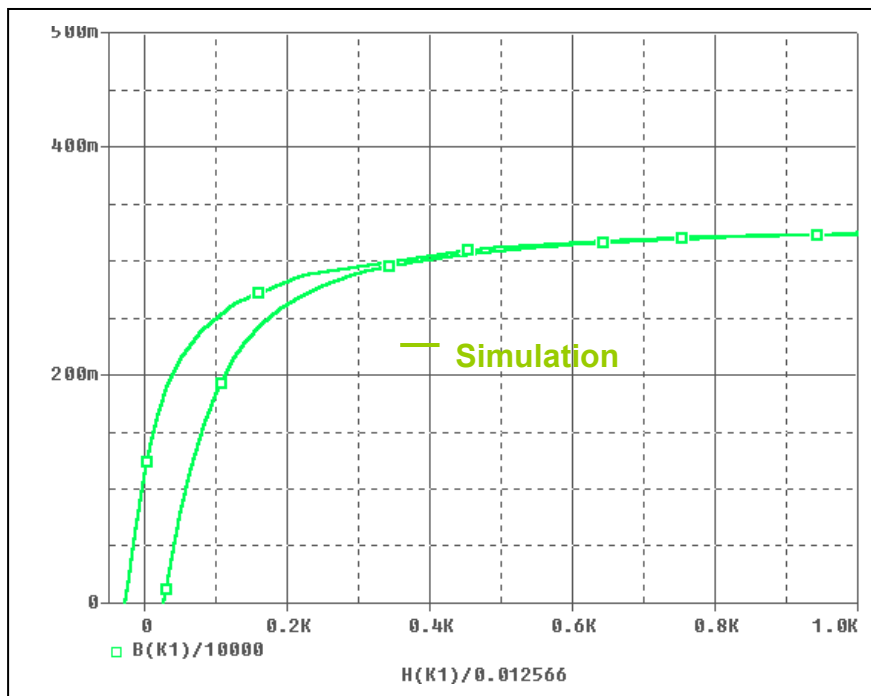
| Pspice model parameter | Model description |
|------------------------|-----------------------------|
| A | thermal energy parameter |
| K | domain anisotropy parameter |
| C | domain flexing parameter |
| MS | magnetization saturation |

Hysteresis Curve Characteristics

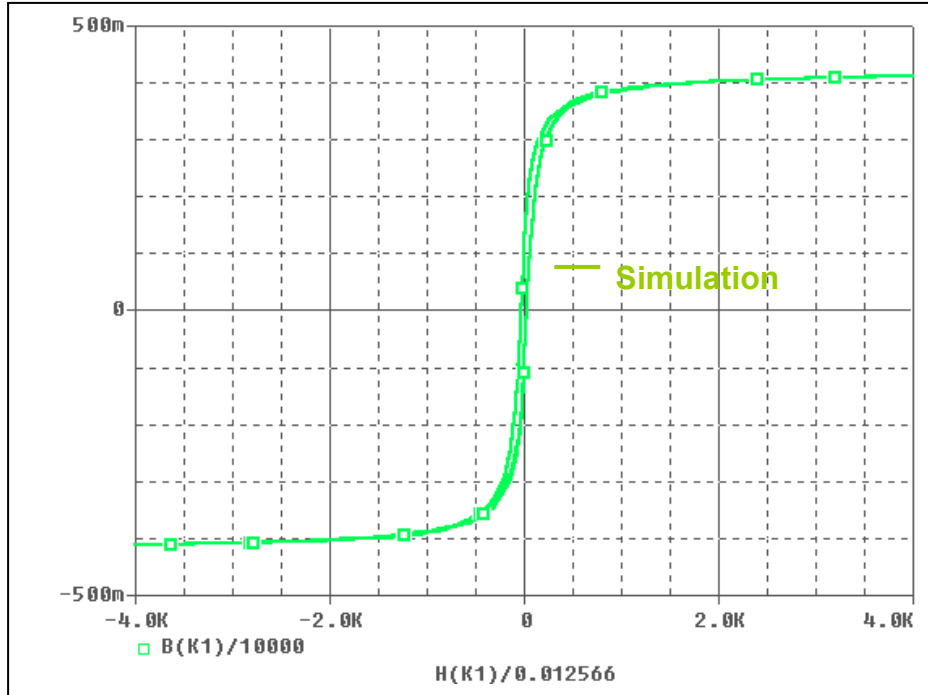
Evaluation Circuit



Simulation result



Simulation result



Comparison Table

| H(A/m) | B(mT) Measurement | B(mT) Simulation | %Error |
|---------------|------------------------------|-----------------------------|---------------|
| 25 | 170 | 176.623 | 3.896 |
| 50 | 205 | 211.688 | 3.262 |
| 75 | 225 | 233.766 | 3.896 |
| 100 | 240 | 248.837 | 3.682 |
| 340 | 300 | 297.968 | 0.677 |
| 500 | 310 | 311.332 | 0.430 |
| 760 | 320 | 319.903 | 0.030 |
| 1000 | 325 | 324.27 | 0.225 |
| 100 | 190 | 180.52 | 4.989 |
| 340 | 290 | 293.887 | 1.340 |
| 500 | 305 | 307.852 | 0.935 |
| 760 | 320 | 318.399 | 0.500 |
| 1000 | 325 | 324.675 | 0.100 |