



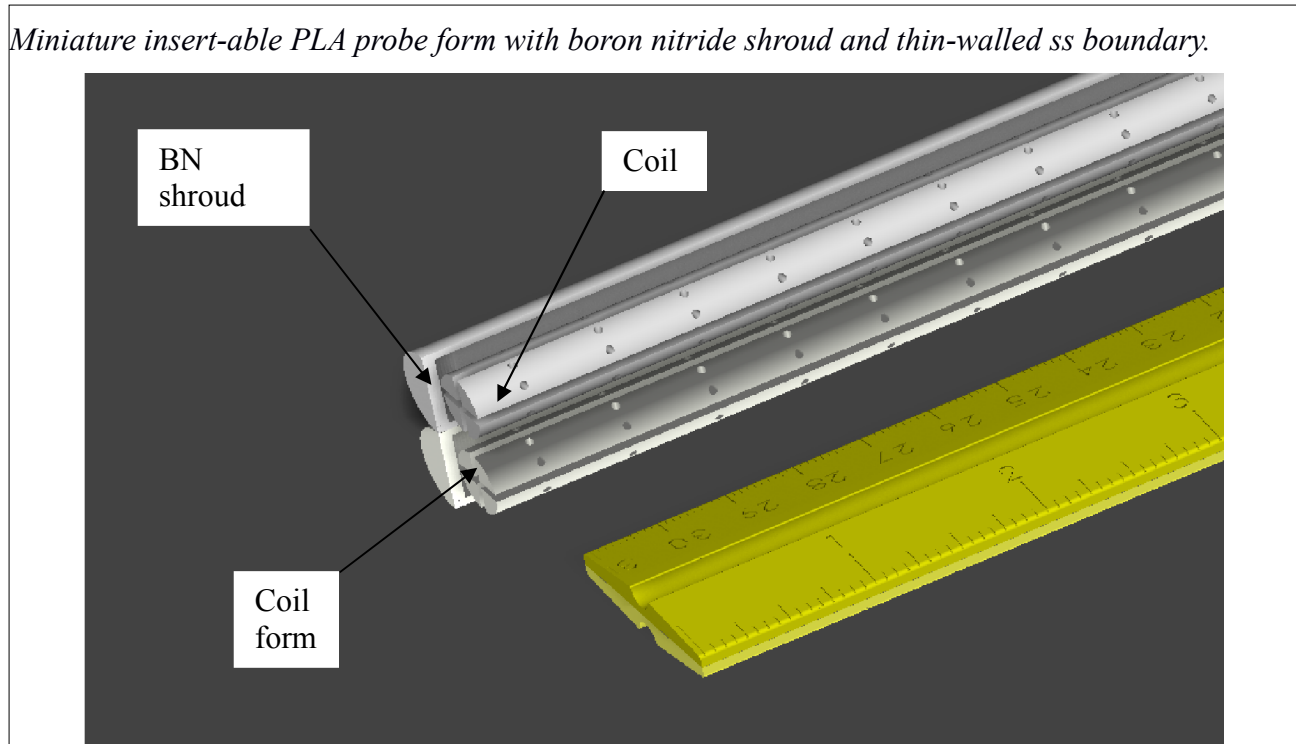
## Woodruff Scientific Inc

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**Model number(s):** M1-B-Array

**Descriptive name:** Array of B-dot coils two directions on plastic form

*Miniature insert-able PLA probe form with boron nitride shroud and thin-walled ss boundary.*



### Features:

- Measure components of magnetic field for correlation analysis
- Single piece construction
- Slotted for windings in two directions (or three axis)
- Wound with low errors (custom tolerance)
- Options for wire (Cu is standard)
- Options for form material (inc 3d printed)
- Harnessing lengths custom
- Custom sizing/configurations available

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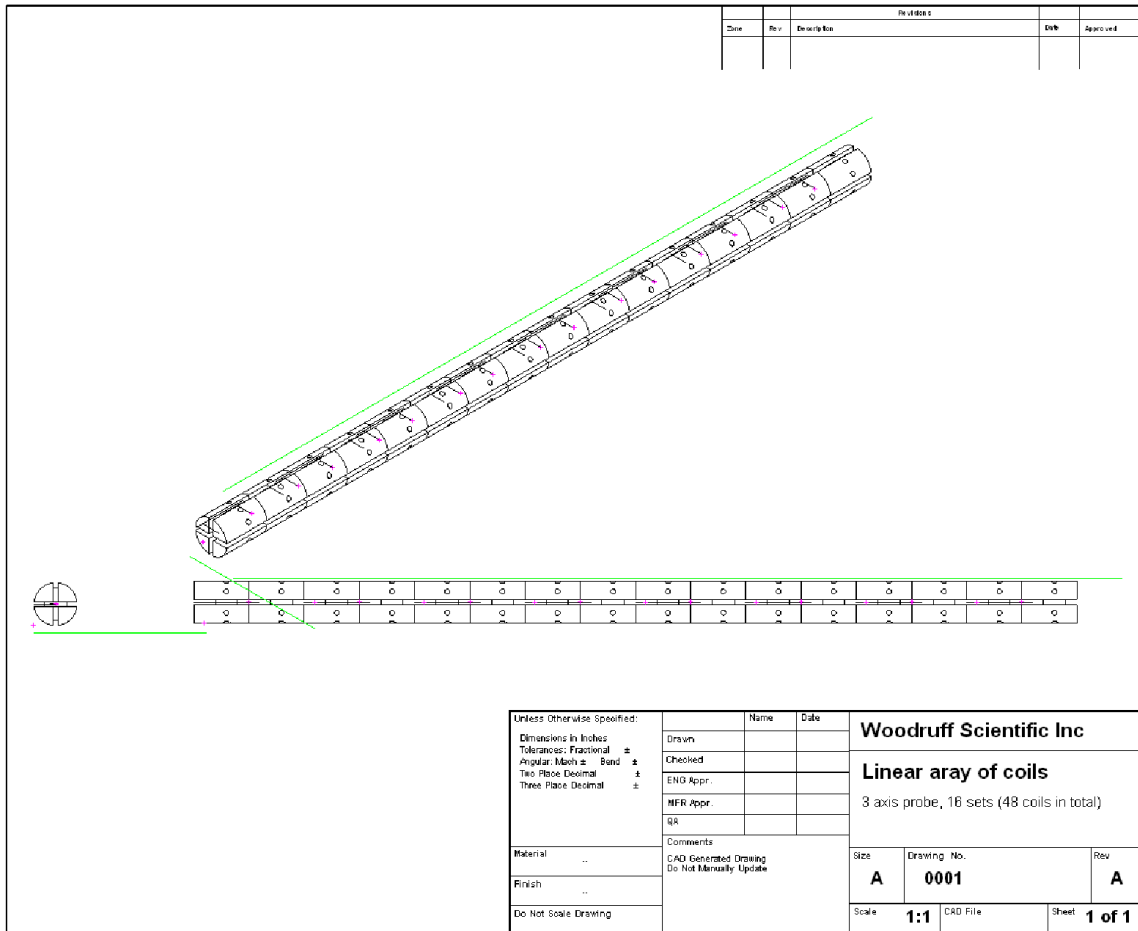
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Engineering Drawing

Notes:

1. Mounting holes are sized as a clearance fit for a 1/4-20 screw
2. For higher power operation in steady state, attach coils to suitable heat sink
3. Electrical connections to the coil are made with 1/4" lugs, soldered to coil winding



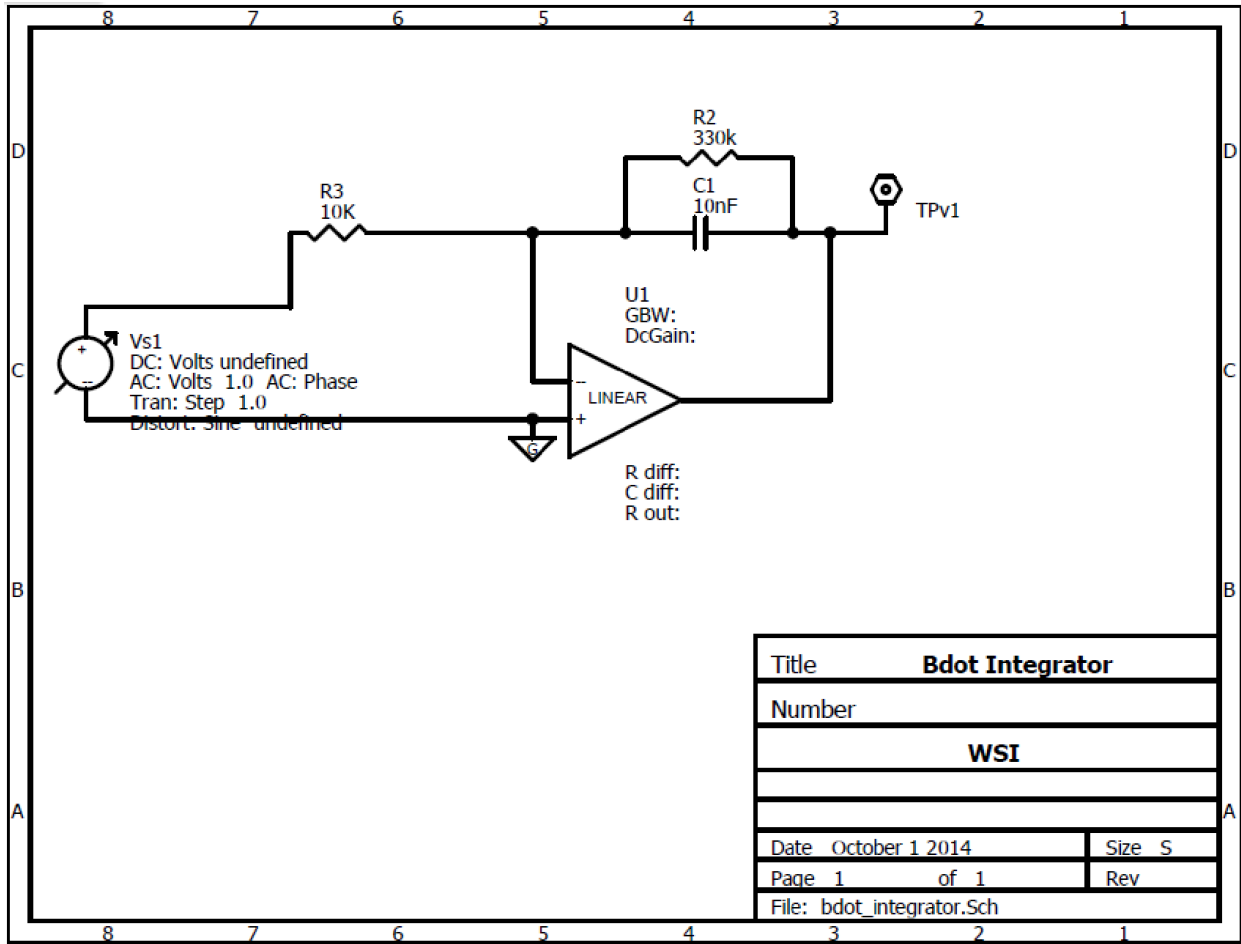


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Circuit – Integrator

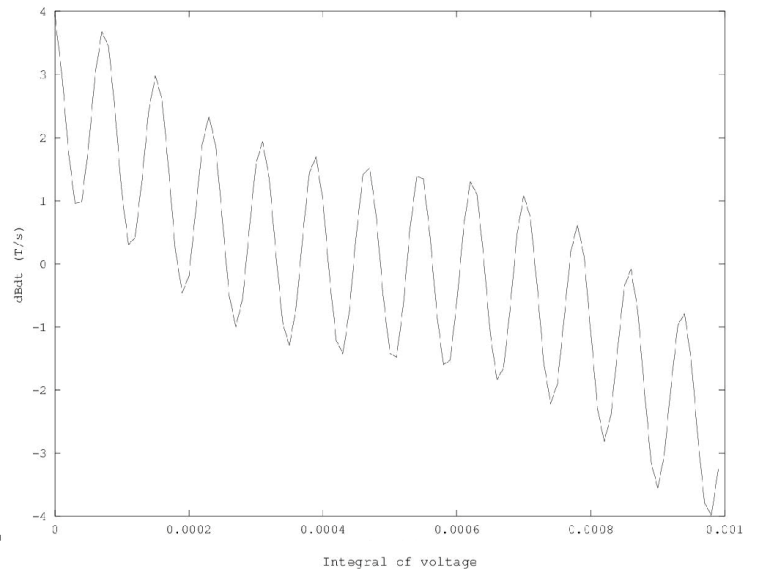
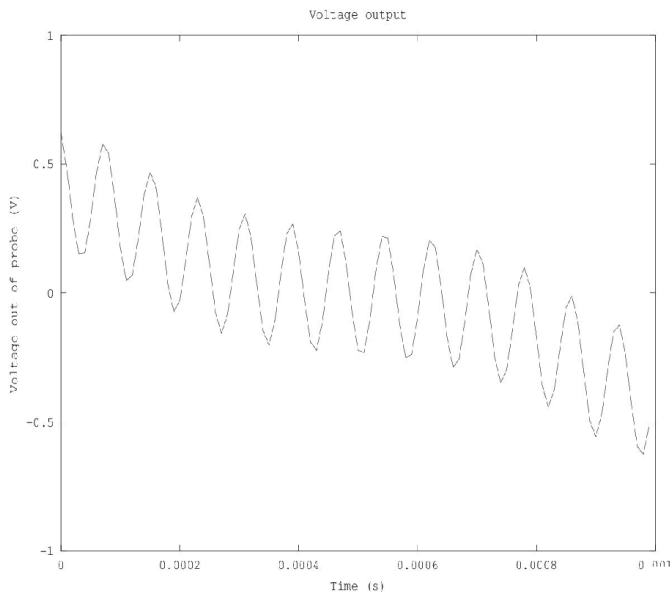


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In order to reconstruct the time varying magnetic field, coil voltage signals are first multiplied by the turns-area factor, then integrated. Shown in the plots are example waveforms that could be obtained from experiment. Bottom right is the reconstructed time-history of magnetic field strength.

