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On the floating type Langmuir probe using the harmonic technique in inductively coupled plasmas SUNGHO JANG, MINHYONG LEE, CHINWOOK CHUNG, Division of Electrical Engineering, Hanyang University — A floating type Langmuir probe using the harmonic technique and its driving circuit are developed and applied to measure the electron temperature and the ion density in inductively coupled plasmas(ICP). The reliability of the harmonic technique is checked by varying the amplitude and the frequency of the applied voltage and the current sensing resistance. Comparisons with a single Langmuir probe show that the electron temperature and the ion density from the floating-type probe are in good agreement with those from single Langmuir probes at various pressures and input rf powers.

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