Abstracts

A method for the 2.45-GHz magnetron output power control

D. Martin, A. Jianu and D. Ighigeanu. "A method for the 2.45-GHz magnetron output power control." 2001 Transactions on Microwave Theory and Techniques 49.3 (Mar. 2001 [T-MTT]): 542-545.

A new method that overcomes the disadvantages of the conventional magnetron output power (MOP) control is presented in this paper, The conventional LC single-phase half-wave doubler supply has been modified in order to allow the use of a manually controlled and/or PC-controlled electronic variator. Trains of high-voltage pulses followed by inhibited high-voltage pulses are periodically applied on the magnetron anode yielding a corresponding variation of the average MOP, with programmed steps, maintaining the advantage of peak microwave output power operation. The PC-controlled system provides a practically continuous variation of the magnetron average output power.

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