

Abstracts

The Sophisticated Properties of the Microwave Oven Magnetron

W.C. Brown. "The Sophisticated Properties of the Microwave Oven Magnetron." 1989 MTT-S International Microwave Symposium Digest 89.3 (1989 Vol. III [MWSYM]): 871-874.

The magnetron commonly used in the microwave oven has unusually low noise and long life resulting from an internal feedback process that limits the emission from the cathode to optimum values for these properties. Without compromising these properties the magnetron can be combined with external circuitry to lock the output phase to the input phase and simultaneously provide 30 dB of gain. Together with its low cost and universal availability, these properties make it an attractive option for a number of applications.

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