Abstracts

Design of Single-Anode, MIG-Type Gyrotron Gun for a 35 GHz Gyro-TWT

J.M. Baird and A.C. Attard. "Design of Single-Anode, MIG-Type Gyrotron Gun for a 35 GHz Gyro-TWT." 1981 MTT-S International Microwave Symposium Digest 81.1 (1981 [MWSYM]): 261-263.

The design of a diode-like, low velocity spread electron gun for a gyrotron amplifier is described. The total longitudinal velocity spread is calculated to be on the order of ±2.5% in a 70 kV, 9 A beam with a v/spl perp//vz velocity ratio of 1.5. Less than ±0.5% spread is attributed to electron ray optics effects. Gyrotron gun design approaches are discussed.

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