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A Ku band Relativistic Magnetron Driven by a PFN-Marx Generator[1] WEI LI, TAO XUN, HAN-WU YANG, JUN ZHANG, National University of Defense Technology — A Ku band Relativistic Magnetron Driven by a PFN-Marx Generator is proposed in this paper. The relativistic magnetron has 18-resonant cavities and a diffraction output configuration. The radiation parameters are that the central frequency of 14.4GHz, microwave power of 400MW, pulse duration of 50ns, far-field pattern of TE01. The PFN-Marx generator, which can produce 400kV of voltage and 4GW of electric power, is composed of multi-level ceramic capacitors and copper wire inductances. A triggered cascade gas switch is employed in the generator for discharging to the relativistic magnetron.

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WEI LI
National University of Defense Technology

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