

Abstract Submitted
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Efficiency Study of a Terahertz-Range Gyrotron RUIFENG PU, OLEKSANDR SINITSYN, GREGORY NUSINOVICH, IREAP, University of Maryland, CENTER FOR APPLIED ELECTROMAGNETICS TEAM — This study is part of an effort toward designing a 300 kW gyrotron oscillator operating at 670 GHz. Three configurations of cavities designed for operation at the TE_{31,8} – mode were considered. Cavity design studies have been performed by using the self-consistent code MAGY, with the account for ohmic losses and velocity spread. It was found that the maximum efficiencies in these three cavities reached 23%, 34% and 35%, respectively. Details of calculation will be presented at the meeting.

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