

3D-Analysis of Quasi-Optical Output Systems for High Power Gyrotrons

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The analysis of quasi-optical output systems for high power gyrotrons is nowadays based on the calculation of the diffraction integral. With todays computer performance a new model solving the electric field integral equations was introduced recently and showed an enhancement in the analysis of launchers. Now we expand the 3D-analysis to the complete output system including the launcher and three mirrors. Interactions of mirrors and diffraction is included to the simulations this way. We will discuss the advancement of this method and show example calculations.