

Abstracts

Power Combining in an Array of Microwave Power Rectifiers (1979 [MWSYM])

R.J. Gutmann and J.M. Borrego. "Power Combining in an Array of Microwave Power Rectifiers (1979 [MWSYM])." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 453-455.

To obtain useful power levels for proposed freespace microwave power transmission applications, numerous rectifier outputs are interconnected in series and/or parallel to share a common DC load. This work analyzes the resultant efficiency degradation when identical rectifiers operate at different RF power levels as caused by the power beam taper. The efficiency degradation is nearly identical with series and parallel combining and a closed form analytical model provides results which are similar to a detailed computer simulation model.

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