Abstracts

Shunt-Mounted Harmonically-Tuned Power Rectifier for Distributed Power Converters

D.P. Garrison, A. Lam, J.M. Borrego and R.J. Gutmann. "Shunt-Mounted Harmonically-Tuned Power Rectifier for Distributed Power Converters." 1993 MTT-S International Microwave Symposium Digest 93.3 (1993 Vol. III [MWSYM]): 1229-1232.

A RF power rectifier has been designed, constructed in surface-mount technology and evaluated for use in distributed power converters for advanced electronic packaging applications. With commercially available components, a 40 watt rectifier with a 100 MHz input from a 50 ohm source impedance provides 2.9 V output with 38% conversion efficiency. Detailed simulation and characterization indicates that 50 watt and 10 watt converters are capable of 70% and 80% conversion efficiency respectively, with low loss RF implementations.

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