Abstracts

A Power Amplifier Yields 10 Watts Over 8-14 GHz Using GaAs MMICs in an LTCC Serial Combiner/Divider Network

J.W. Gipprich, L.E. Dickens and J.A. Faulkner. "A Power Amplifier Yields 10 Watts Over 8-14 GHz Using GaAs MMICs in an LTCC Serial Combiner/Divider Network." 1993 MTT-S International Microwave Symposium Digest 93.3 (1993 Vol. III [MWSYM]): 1369-1372.

The main thrust of this work was to develop a high efficiency N-way combining scheme consistent with the physical geometries associated with X and Ku band active apertures. A 12-way combiner utilizing stripline serial feed networks in Low Temperature Cofired Ceramic (LTCC) was designed, fabricated and tested over an 8-14 GHz bandwidth. This combiner was integrated with 6 dual channel 1 watt MMICs to achieve 10 watts peak output power with greater than 86% combining efficiency at center band. The results of this work are described within this paper.

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