Abstracts

A Novel Power Combiner for MIC and MMIC Amplifiers

A.K. Ezzeddine and H.-L.A. Hung. "A Novel Power Combiner for MIC and MMIC Amplifiers." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 479-482.

A new power-combining technique using a dual-ridged structure in rectangular waveguide is described. The compactness of this combiner makes it especially suitable for high-power MIC or MMIC amplifier applications. Four-way combiner/dividers fabricated at X- and K/sub u/-bands exhibited an insertion loss of less than 0.1 dB (combining efficiency of 98 percent) and return loss of better than 20 dB. An MIC power amplifier was designed for the 14- to 14.5-GHz communications band to demonstrate a potential application for this new combiner.

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