Abstracts

Degradation of Power Combining Efficiency Due to Variability Among Signal Sources (Short Papers)

M.S. Gupta. "Degradation of Power Combining Efficiency Due to Variability Among Signal Sources (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.5 (May 1992 [T-MTT]): 1031-1034.

The power combining efficiency of a symmetric n-way power combiner depends on the degree of imbadance among its input signals. This paper establishes the worst-case efficiency for a combiner when its input signal amplitudes and phases are uncertain, but constrained to given ranges. This result is then used to deduce the permissible tolerance in the uniformity of components used in power combiner construction, given the maximum acceptable efficiency degradation.

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