Abstracts

Coherent RF Error Statistics (Dec. 1986 [T-MTT])

R.B. Dybdal and R.H. Ott. "Coherent RF Error Statistics (Dec. 1986 [T-MTT])." 1986 Transactions on Microwave Theory and Techniques 34.12 (Dec. 1986 [T-MTT] (1986 Symposium Issue)): 1413-1420.

RF error statistics for power, voltage, and phase are derived under the assumptions that the error component is coherently related to the desired signal, that its magnitude is constant, and that its phase is equally likely and uniformly distributed from 0 to 360°. The error statistics which result from these assumptions have nonzero mean values for power and voltage and standard deviations which differ significantly from those projected on the basis of Gaussian statistics that apply to incoherent errors. These statistics will be applied to typical component errors which arise in an overall system error budget.

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