

## Multi-tone intermodulation distortion performance of 3rd order microwave circuits

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*N.B. Carvalho and J.C. Pedro. "Multi-tone intermodulation distortion performance of 3rd order microwave circuits." 1999 MTT-S International Microwave Symposium Digest 99.2 (1999 Vol. II [MWSYM]): 763-766 vol.2.*

Analytic expressions are presented to predict the response of a 3rd order memoryless microwave circuit under a relative narrow-band spectrum composed of a general number of equally spaced tones with constant amplitude and correlated or uncorrelated phases. This enabled the study of the relation between two-tone and multi-tone characterization, and showed that normal Noise Power Ratio (NPR) measurement procedures are optimistic in up to 7 dB when evaluating real co-channel distortion.

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