Abstracts

Two-Tone Nonlinearity Testing - The Intercept Point P/sub i/.

F.F. Fulton, Jr.. "Two-Tone Nonlinearity Testing - The Intercept Point P/sub i/.." 1973 G-MTT International Microwave Symposium Digest of Technical Papers 73.1 (1973 [MWSYM]): 112-112.

When a nonlinearity is modeled as memoryless with a three-term power series, a convenient way of expressing the characteristics is by the use of intercept points. An intercept point is the output power level at which the fundamental tone and the distortion tone have equal amplitudes. For many practical system problems, specification of an intercept point permits very quick calculation of distortion tone levels; in particular, given two equal amplitude fundamental tones at similar frequencies, the adjacent third order distortion product is down from a fundamental by twice the number of decibels that the fundamental is down from the third order intercept point. Even more simply, the second order distortion is down from a fundamental by an amount equal to the number of decibels that the fundamental is down from the appropriate intercept point.

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