# Abstracts

## Transfer characteristic of IM/sub 3/ relative phase for a GaAs FET amplifier (1997 Vol. II [MWSYM])

*N. Suematsu, T. Shigematsu, Y. Iyama and O. Ishida. "Transfer characteristic of IM/sub 3/ relative phase for a GaAs FET amplifier (1997 Vol. II [MWSYM])." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 901-904.*

Measured transfer characteristic of relative phase of the third order intermodulation distortion (IM/sub 3/) of a GaAs FET amplifier is described. The measurement system and method are also described. For drives in the weakly nonlinear region, the measured relative phase of IM/sub 3/ is equal to that of carriers, and agrees with the analysis result based on Volterra-series representation. For drives in the saturation region, the measured relative phase of IM/sub 3/ versus the input power is larger than that of carrier's relative phase. The measured results and the measurement method are useful for the design and adjustment of predistortion type linearizer for GaAs FET high power amplifiers.

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