

Abstracts

Third-Order Intermodulation Distortion in Cascaded Stages

S.A. Maas. "Third-Order Intermodulation Distortion in Cascaded Stages." 1995 *Microwave and Guided Wave Letters* 5.6 (Jun. 1995 [MGWL]): 189-191.

The relation for intermodulation distortion (IM) levels in cascaded stages is based on the worst-case assumption that intermodulation products at the output of each stage combine in phase. However, because there is no apparent reason why IM products should always combine in phase, efforts are customarily made to discard this assumption. Using Volterra analysis, we show that in certain cases, the IM products do indeed combine in phase, and the cascade relation gives an accurate, not worst-case, prediction of distortion.

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