

Abstracts

New linearization method using interstage second harmonic enhancement

Dong Jing, Wing Shing Chan, Shi Man Li and Chung Wai Li. "New linearization method using interstage second harmonic enhancement." 1998 Microwave and Guided Wave Letters 8.11 (Nov. 1998 [MGWL]): 402-404.

Efficient use of the frequency spectrum necessitates the use of modulation formats such as $\pi/4$ -DQPSK, which requires linear amplification to minimize spectral regrowth. A new linearization technique is presented that allows a more efficient operation of these linear amplifiers by combining both the advantage of the transparent nature of feed-forward linearization with the efficiency of feedback linearization. The method of convolution is used to analyze the amplifier characteristics and to determine how linearization can be achieved. This method is verified experimentally and proves that by careful use of the second harmonic component, a new method of linearization has been realized.

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