Abstracts

Novel active differential phase splitters in RFIC for wireless applications (1998 [RFIC])

H. Ma, S.J. Fang, F. Lin and H. Nakamura. "Novel active differential phase splitters in RFIC for wireless applications (1998 [RFIC])." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 51-54.

Two novel active differential phase splitters have been designed and fabricated in a GaAs MESFET process. The new circuits employ a concept of feedback to adjust gain and phase unbalance separately and accurately. The active phase splitters feature simplicity, low power supply and wide-band performance. The circuits can provide /spl plusmn/1 dB and 180/spl plusmn/1/spl deg/ differential signals within a 4 GHz bandwidth, well covering the frequency range currently used for dual mode commercial wireless communications. In narrowband application more accurate balanced differential signals can be achieved by external tuning.

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