Abstracts

A low distortion GaAs quadrature modulator IC

J. Itoh, T. Nakatsuka, K. Sato, Y. Imagawa, T. Uda, T. Yokoyama, M. Maeda and O. Ishikawa. "A low distortion GaAs quadrature modulator IC." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 55-58.

A low distortion GaAs quadrature modulator IC with on-chip active 90/spl deg/ phase-shifter was fabricated by using high linearity GaAs MESFET technology for wideband wireless applications. The IC showed OIP3 of +16 dBm, CLR of -40 dBc, and IRR of -40 dBc at supply voltage of 5.0 V, dissipation current of 70 mA and carrier frequency of 600 MHz. Excellent EVM smaller than 1.0% and ACPR of 60 dBc were also obtained for 4 Mbps QPSK signal with Pout of -10 dBm.

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