

Abstracts

High-performance quadrature modulators for broadband wireless communication

B. Sam and P. Halford. "High-performance quadrature modulators for broadband wireless communication." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 17-20.

A quadrature modulator operating from 250-1000 MHz, having a maximum output level of +3 dBm into a 50-ohm load and a noise floor of -155 dBm/Hz has been developed. The device draws 65 mA from a single 2.7 to 5.5 V supply when active, and 70 uA during standby. The high dynamic range achieved by this device is attributable to the design of its baseband interface, as well as its complementary bipolar process with insulated substrate. A high frequency version of this chip provides similar performance from 800-2700 MHz.

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