

Abstracts

A Compact Broadband Multifunction MIC Module

E.C. Niehenke. "A Compact Broadband Multifunction MIC Module." 1982 MTT-S International Microwave Symposium Digest 82.1 (1982 [MWSYM]): 428-430.

A development effort is described that yielded a compact broadband module using soft and hard substrate material employing microstrip, slot line, and coplanar line. Integrated functions include coupling, limiting, up-conversion, downconversion, broadband amplification, amplitude modulation, switching, gating, and stable frequency generation. A new high-level frequency converter with a +28 dBm intercept point resulted in high dynamic range, spurious-free operation (-45 dBc). Extremely flat amplification with low current drain is achieved with novel distributed and cascode FET amplifiers at S-C and X-bands.

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