

Abstracts

A Compact Broad-Band Multifunction ECM MIC Module

E.C. Niehenke, R.D. Hess, J.S. Rosen, L.E. Dickens and J.A. Faulkner, Jr.. "A Compact Broad-Band Multifunction ECM MIC Module." 1982 Transactions on Microwave Theory and Techniques 30.12 (Dec. 1982 [T-MTT] (1982 Symposium Issue)): 2194-2200.

A development effort is described that yielded a compact broad-band ECM module using soft and hard substrate material employing microstrip, slotline, and coplanar line. Integrated functions include coupling, limiting, upconversion, downconversion, broad-band amplification, amplitude modulation, switching, gating, and stable frequency generation. A 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 distributed and cascode FET amplifiers at S - C and X-bands.

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