

Abstracts

A 900MHz 90 Degrees Hybrid for QPSK Modulator

S. Arai, A. Kato, K. Minami and T. Nishikawa. "A 900MHz 90 Degrees Hybrid for QPSK Modulator." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 857-860.

A miniaturized surface mounting 90 degrees hybrid using a meandered thin film microstrip line directional coupler has been developed for the QPSK modulator. The coupling level of the narrow spacing parallel lines on a high dielectric constant (K) ceramics was calculated using Finite Element Method (FEM) and a circuit simulator. Balanced outputs and quadrature phase difference in the frequency range of $950\text{ MHz} \pm 10\text{ MHz}$ were obtained experimentally at the size of $1.7\text{ (H)} \times 4.8\text{ (W)} \times 6.2\text{ (D) mm}$.

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