Abstracts

Slow-wave propagation of microstrip consisting of electric-magnetic-electric (EME) composite metal strips

Ching-Kuo Wu and C.-K.C. Tzuang. "Slow-wave propagation of microstrip consisting of electric-magnetic-electric (EME) composite metal strips." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 727-730 vol.2.

A novel integrated microstrip slow-wave line is presented. The new microstrip replaces the conventional metal strip by the composite metals paralleling the electric and magnetic surfaces. The magnetic surface is made of an array of coupled inductors that perturb the modal currents periodically. The theoretical results, validated by experiment, show more than 60% increase in the slow-wave factor while maintaining the Q-factor values which can be achieved using the proposed structure.

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