Abstracts

Enhanced dual polarization directional coupler for dual polarization beam forming networks

F. Alessandri, M. Dionigi, R. Ravanelli and L. Vanni. "Enhanced dual polarization directional coupler for dual polarization beam forming networks." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1315-1318.

Directional couplers and fixed phase shifters are the key components for the realization of beam forming networks. Usually a beam forming network feeds the antenna with two linear and orthogonal polarizations. Dual polarization components can be used to reduce complexity and size of a beam forming network. Dual polarization directional coupler was presented by the same authors. An enhanced version of the dual polarization coupler is presented in this paper. The component has improved electrical performances because the dimensions of the waveguide cross section can be better optimized for the operative bands of the two polarizations.

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