

Abstracts

A New Class of Branch-Line Directional Couplers

J.W. Gipprich. "A New Class of Branch-Line Directional Couplers." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 589-592.

The branch-line directional coupler consists of two parallel transmission lines connected by quarter wavelength shunt branches spaced one quarter wavelength apart. This paper describes a new class of branch-line directional couplers in which the shunt transmission line branches are replaced by shorted coupled transmission line pairs. The new circuit overcomes the limitations of the conventional circuit which may require for the shunt branches, unrealizable high impedance transmission line sections for loose coupling values and for some wideband multi-section designs.

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