Abstracts

Genenal Extracted Pole Synthesis Technique with Applications to Low-Loss TE/sub 011/ Mode Filters

J.D. Rhodes and R.J. Cameron. "Genenal Extracted Pole Synthesis Technique with Applications to Low-Loss TE/sub 011/ Mode Filters." 1980 MTT-S International Microwave Symposium Digest 80.1 (1980 [MWSYM]): 144-146.

A new synthesis technique is developed for filters which exhibit arbitrary transfer characteristics. The real frequency transmission zeros are extracted using simple resonators separated by phase shifters. The remaining transmission zeros are realised by a cross-coupled double array with the entire filter possessing complex conjugate symmetry. Since all of the coupling elements are positive, TE/sub 011/ mode filters may be directly realized and an example of a 6th degree filter at 19.6 GHz with both real and imaginary transmission zeros is cited.

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