Abstracts

A Novel Class of Generalized Chebyshev Low-Pass Prototype for Suspended Substrate Stripline Filters

S.A. Alseyab. "A Novel Class of Generalized Chebyshev Low-Pass Prototype for Suspended Substrate Stripline Filters." 1982 Transactions on Microwave Theory and Techniques 30.9 (Sep. 1982 [T-MTT] (Special Issue on Microwave Filters)): 1341-1347.

A novel class of low-pass prototype filters having an equiripple passband response with three transmission zeros at infinity and the remainder at a finite real frequency is presented. The prototypes are synthesized using the alternating pole technique to obtain directly the even-mode or the odd-mode admittance and little accuracy is lost for prototypes up to degree 15. Tables of element values for commonly used specifications are included. The tables are useful for the design of TEM-mode microwave broad-band filters, diplexers, and multiplexers, particularly for a printed circuit form a realization. A design example of a low-pass microwave broad-band filter designed and constructed in suspended substrate stripline (SSS) configuration is given and experimental results are also presented.

❑ Return to main document.