Abstracts

Narrow-Band Stripline or Microstrip Filters with Transmission Zeros at Real and Imaginary Frequencies

K.T. Jokela. "Narrow-Band Stripline or Microstrip Filters with Transmission Zeros at Real and Imaginary Frequencies." 1980 Transactions on Microwave Theory and Techniques 28.6 (Jun. 1980 [T-MTT]): 542-547.

Simple approximate design equations are derived in this paper for an even degree (n >= 6) low-pass inverter capacitance prototype filter having single transmission zeros at both real and imaginary frecuencies. This is achieved by utilizing one or two additional couplings. The transmission zeros improve considerably the passband group delay and increase the skirt selectivity compared to those of the ordinary Chebyshev prototype. An exact and more complicated method based on the known generalized Chebyshev rational function approximation is also presented for the comparison. The prototype with one additional coupling is utilized to realize narrow-bandpass printed circuit filters consisting of half-wave resonators.

❑ Return to main document.