

Abstracts

Design of Filters with Ideal Amplitude and Any Prescribed Phase

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The transfer function of a lowpass non-minimum-phase network with characteristics approximating a constant passband amplitude and any prescribed phase can be expressed in a closed form. This procedure can be used to approximate pre-distorted lowpass characteristics such that application of non-linear frequency transformation produces the desired bandpass ones. Network synthesis leads to a lowpass cross-coupled structure with diagonal cross-couplings. The method is used to design a six-cavity waveguide filter with linear phase characteristic.

[Return to main document.](#)