Abstracts

Broadband Tapered-Line Phase Shift Networks (Correspondence)

C.P. Tresselt. "Broadband Tapered-Line Phase Shift Networks (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.1 (Jan. 1968 [T-MTT]): 51-52.

It is presently possible to utilize cascaded quarter-wavelength coupled-line sections in an allpass configuration to provide constant phase shift relative to the phase of a properly chosen length of TEM line over multioctave bandwidths. A fairly complete bibliography of work in this field is given by Shelton and Mosko. Unfortunately, the spread in coupling values between adjacent sections is large enough to produce significant reactive discontinuities in practical TEM line geometries, adversely affecting VSWR and phase accuracy of the device. The purpose of this corrrespondence is to describe a design which considerably alleviates the effect by employing coupling which is continuously tapered through the length of the device.

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