

Abstracts

Broadband Switched-Bit Phase Shifter Using All-Pass Networks

D. Adler and R. Popovich. "Broadband Switched-Bit Phase Shifter Using All-Pass Networks." 1991 MTT-S International Microwave Symposium Digest 91.1 (1991 Vol. 1 [MWSYM]): 265-268.

A method of broadband phase shifting, utilizing an unbalanced all-pass network topology, has been developed. By taking advantage of the intrinsically matched characteristics of these networks, it is shown that multi-octave response can be achieved by cascading of two or more similar networks. Utilizing this approach, an octave band 4-bit phase shifter has been realized, having less than 18° total phase error and better than -30 dBc carrier suppression when operated as a frequency translator.

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