Abstracts

Log-Periodic Octaline Hybrid Junctions

R.H. DuHamel, M.E. Armstrong and M.A. Meyer. "Log-Periodic Octaline Hybrid Junctions." 1964 PTGMTT International Symposium Program and Digest 64.1 (1964 [MWSYM]): 18-21.

The four-port circuits to be discussed are actually eight-port circuits with pairs of ports connected in a balanced manner. Thus, it may be necessary in some applications to use frequency-independent baluns, such as those described in the preceding paper, to feed the hybrid. Since the coupled outputs of the log-periodic octaline junctions are equal in magnitude and either in phase or out of phase, the circuit behaves as a magic T. Log-periodic quadra line hybrid junctions, for which the coupled outputs are 90° out of phase, will be the subject of a future paper. The log-periodic hybrids should find wide application in wideband search, ECM and monopulse tracking systems. As will be discussed, these circuits are best suited for the frequency ranges from 50 Mc to 10 Gc.

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