Abstracts

Microwave Applications of the Step Recovery Diode

R.B. Mouw and F.S. Coale. "Microwave Applications of the Step Recovery Diode." 1964 PTGMTT International Symposium Program and Digest 64.1 (1964 [MWSYM]): 176-180.

There has been increasing interest in the past few years in methods for obtaining microwave power derived for vhf sources by means of single-stage multipliers of higher harmonic order. While such a method is less efficient than a cascade of varactor doublers and triplers, the reduced complexity and increased versatility will often mitigate the additional vhf drive power required. A single-stage high-harmonic-order multiplier usually consists of an input matching network and output cavity or bandpass filter. The input and output of single-stage multipliers are usually terminated with linear loads, whereas varactor chains are often difficult to align due to the nonlinear interaction between stages. An additional advantage of the single-stage multiplier is the possibility of employing prime harmonic numbers.

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