Abstracts

Dynamic Microwave Frequency Division Characteristics of Coplanar Transferred-Electron Devices in a Resistive Circuit (Letters)

C.I. Huang, J. Tsui, R.T. Kemerley and G.L. McCoy. "Dynamic Microwave Frequency Division Characteristics of Coplanar Transferred-Electron Devices in a Resistive Circuit (Letters)." 1976 Transactions on Microwave Theory and Techniques 24.1 (Jan. 1976 [T-MTT]): 61-63.

It is shown that dynamic microwave frequency division (divide-by-K) can be achieved by employing a transferred-electron device (TED) in a resistive circuit. The absolute bandwidth over which the input signal will be divided by a particular integer K and the maximum output frequency is the device transit time frequency. The percentage bandwidth is 200/(2K - 1) percent. With two-terminal TED's, divide-by-K (K = 2, 3, 4, 5) was demonstrated with substantial bandwidth.

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