Abstracts

Posttuning Drift of a Transferred-Electron-Device Voltage-Controlled Oscillator (Short Papers)

K.M. Johnson. "Posttuning Drift of a Transferred-Electron-Device Voltage-Controlled Oscillator (Short Papers)." 1976 Transactions on Microwave Theory and Techniques 24.10 (Oct. 1976 [T-MTT]): 650-656.

An experimental study was done on the parameters affecting the frequency drift of a transferred-eletron-device (TED) controlled oscillator (VCO) after tuning from one frequency to another within its tuning band. For the VCO measured, reduction in frequency drift was observed and measured when: 1) the output power was reduced voltage either by decoupling the load or by using a lower power TED; 2) the voltage swing was restricted so as to draw less than 10 µA forward or reverse current; and 3) when a varactor with a high Q was used. With 5-mW output the TED VCO had a frequency drift less than 2.5 MHz from 1 µs to 100 ms when step tuning the frequency anywhere in the frequency band from 6.8 to 9.1 GHz.

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