Abstracts

Novel oscillator incorporating a compact microstrip resonant cell

Quan Xue, Kam Man Shum and Chi Hou Chan. "Novel oscillator incorporating a compact microstrip resonant cell." 2001 Microwave and Wireless Components Letters 11.5 (May 2001 [MWCL]): 202-204.

A novel transistor oscillator incorporating a compact microstrip resonant cell (CMRC) as its terminating resonance is proposed. Adjusting the dimensions of the cell, it is possible that the fundamental frequency can be positively fed back and the second harmonic negatively fed back at the input port of the oscillator. The fundamental output is enhanced with the second harmonic being suppressed. The output power of the proposed CMRC oscillator is 14.7 dBm at 2.5 GHz with 27.1 dB rejection of the second harmonic, outperforming the conventional microstrip termination with a 40% size reduction.

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