Abstracts

A MIC X7 DHBT Frequency Multiplier with Low Spurious Harmonics

D.F. Filipovic. "A MIC X7 DHBT Frequency Multiplier with Low Spurious Harmonics." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1325-1328.

We report on the design and measurement of a MIC X7 DHBT active frequency multiplier. The DHBT devices were fitted to a Gummel-Poon SPICE model which was then used with a harmonic balance analysis to simulate the active frequency multiplier. An edge-coupled filter was implemented for selective amplification of the desired harmonic, and results in 30 dB rejection of spurious harmonics. The X7 active multiplier design demonstrates output powers in the range of 0-4 dBm for moderate input signals (4-8 dBm).

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