Abstracts

An efficient HBT/RTD oscillator for wireless applications

H.J. De Los Santos, K.K. Chui, D.H. Chow and H.L. Dunlap. "An efficient HBT/RTD oscillator for wireless applications." 2001 Microwave and Wireless Components Letters 11.5 (May 2001 [MWCL]): 193-195.

In this paper, we introduce a novel HBT/RTD oscillator suitable for monolithic integration and efficient low power/battery-operated applications. Implementation of a circuit prototype was accomplished by configuring an InP-based monolithic HBT/RTD chip with a gold wire bond inductor in a hybrid microwave package. For an output frequency of 5.8 GHz, the circuit draws a current of 15.5 mA from a 1.5 V supply and generates an output power of +3.13 dBm, for an efficiency of 8.84%.

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