



Published Researches الأبحاث المنشورة



Title عنوان البحث	Design narrow-band frequency amplifier (1.5GHz - 1.6GHz) based on InGaP Heterojunction Bipolar Transistor (HBT) and GaAs HBT
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Abstract خلاصة	<p>The research aims to design a narrow-band frequency drive amplifier (1.5GHz -1.6GHz), which is used to boost the transmitter amplifier's input signal or amplify the GPS, GIONASS signals at the L1 band.</p> <p>The Power Amplifier printed circuit board (PCB) prototype was designed using InGaP HBT homogeneous technology transistor and GaAs Heterojunction Bipolar Transistor (HBT) transistor. Two models have been compared; one of the models gave 16dB gain, and the other gave 23dB when using an input power signal (-15dBm). The PCB consumes 2.4W of power and has a physical dimension of 11 x 4 cm.</p>