A Reconfigurable S/X-Band 25W GaN Power Amplifier MMIC

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Abstract

This paper describes the design and measured performance of a frequency band reconfigurable GaN power amplifier MMIC. The circuit was designed to reconfigure between the 3.0-3.5GHz and 9.0-11.0GHz frequency bands. Measured performance of the 2-stage MMIC demonstrates linear gain exceeding 20dB, greater than 25W of output power and power added efficiencies approaching 50% and 38% for S-band and Xband operation, respectively.