# Abstracts

## A monolithic MEMS switched dual-path power amplifier

*M. Kim, J.B. Hacker, R.E. Mihailovich and J.F. DeNatale. "A monolithic MEMS switched dual-path power amplifier." 2001 Microwave and Wireless Components Letters 11.7 (Jul. 2001 [MWCL]): 285-286.*

RF MEMS switches have been successfully integrated with HEMT MMIC circuits on a GaAs substrate to construct a dual-path power amplifier at X-band. The amplifier uses two MEMS switches at the input to guide the RF signal between two paths. Each path provides single-stage amplification using different size HEMT devices, one with 80-/spl mu/m width and the other with 640-/spl mu/m. Depending on the required output power level, one of the two paths is selected to minimize the dc power consumption. Measurements showed the amplifier producing similar small signal gains of 13.2 and 11.5 dB at 10 GHz for the small and the large devices, respectively. The best PAE was 28.1 percent with 8.5 dBm of output power for the small device, and 15.3 percent with 14.6 dBm for the large device.

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