

Abstracts

A 1.9 GHz fully integrated PHS power amplifier with a novel automatic gate-bias control circuit [MESFET ICs]

R. Singh, H. Nakamura, Khen-Sang Tan and J. Shibata. "A 1.9 GHz fully integrated PHS power amplifier with a novel automatic gate-bias control circuit [MESFET ICs]." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 431-434.

A 3.6 V PHS power amplifier (PA) GaAs MMIC with on-chip matching circuits and a novel automatic gate-bias control circuit is reported. It obviates the need for cumbersome and expensive post fabrication dc bias current tuning. The 1.02/spl times/1.73 mm² SSOP-16 plastic packaged chip, meets all PHS specifications, and the performance is comparable to the PA without the bias control circuit. The measured PA performance is presented for deep, shallow and typical pinch-off voltage cases confirming the robustness and suitability of the proposed bias control circuit.

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