

Electronically tunable class-E power amplifier

F.H. Raab. "Electronically tunable class-E power amplifier." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1513-1516 vol.3.

The 20-W class-E power amplifier (PA) described here is electronically tunable from 19 to 31 MHz (ratio 1.67). This PA employs a single RF-power MOSFET and operates from 25 V. The output-tuning network employs fixed inductors and high-voltage MOSFETs for variable capacitors. The PA achieves an efficiency of 61 to 71 percent and has nearly constant output power across the band. It has excellent amplitude-modulation linearity for Kahn-technique transmitters, with two-tone IMDs at -40.4 dBc.

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