

Abstracts

Monolithic 6W Ka-band high power amplifier

R. Emrick. "Monolithic 6W Ka-band high power amplifier." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. 1 [MWSYM]): 527-529 vol. 1.

The design and performance of a fully monolithic 6W Ka-band power amplifier is outlined. Excellent agreement between modeled and measured performance was demonstrated. This 3-stage power amplifier, which power combines 16 FETs on the third stage, is fully matched on chip to 50/spl Omega/ at the input and output wire bond pads. Performance achieved /spl sim/20.5 dB gain from 24-32 GHz with a peak power of >6W and PAE of /spl sim/21%. This performance was achieved using a 0.1 /spl mu/m power PHEMT process. To the authors knowledge, this is the highest output power demonstrated from a single device in this frequency band.

 [Return to main document.](#)