Abstracts

A High Efficiency 10 Watt HBT Power Amplifier Assembly Using Combining Techniques

G. Ferrell, L. Dickens, J. Gipprich, B. Hayes and F. Sacks. "A High Efficiency 10 Watt HBT Power Amplifier Assembly Using Combining Techniques." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 327-330.

Six 2 Watt AIGaAs/GaAs Heterojunction Bipolar Transistor (HBT) MMIC amplifiers have been combined using low loss, low temperature cofired ceramic (LTCC) splitting and combining networks. The six MMIC amplifiers were combined in a compact, testable, and producible assembly. The amplifier assembly produced 10 Watts peak output power and 30% peak power added efficiency (PAE) over an 8.0 to 14.0 GHz bandwidth. This wideband power amplifier has applications in solid state transmitters and transmit/receive (T/R) modules that require high gain, high power, high efficiency, and compact size.

❑ Return to main document.