Abstracts

S-Band 48% Efficiency GaAs FET Amplifier with 135w Output Power for Mobile Communications Satellite

K. Ishii, T. Okamoto, H. Ishida, N. Tanibe, Y. Dooi, H. Maeda, M. Shigaki and T. Katoh. "S-Band 48% Efficiency GaAs FET Amplifier with 135w Output Power for Mobile Communications Satellite." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 269-272.

We have developed a solid-state power amplifier for mobile communications satellites.The amplifier's peak output power exceed 135 watts with an 48% poweradded efficiency S-band amplifier, which uses a harmonic controlled linear amplifier (HCLA) final stage. It has a linear gain of 54.0dB under CW operation at 2.5GHz. The carrier-to-third-order intermodulation ratio under two-tone operation is 22.5dBc at a 3dB output backoff. The overall unit size is 255X240X26mm with a weight of 1900g.

❑ Return to main document.