Abstracts

A 150 W E-mode GaAs power FET with 35% PAE for W-CDMA base station

Y. Tateno, H. Takahashi, T. Igarashi and J. Fukaya. "A 150 W E-mode GaAs power FET with 35% PAE for W-CDMA base station." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1087-1090 vol.3.

A 150 W power FET for W-CDMA base stations has been developed. This FET combines four enhancement-mode (E-mode) 40 W FET chips newly developed and implemented in a package in a push-pull configuration. A saturation power of 51.8 dBm (150 W) and an associated 12 dB linear gain were achieved with this device at 2.2 GHz. A third order intermodulation distortion (IM3) obtained at the average output power of 47 dBm was as small as -36 dBc, providing a power added efficiency (PAE) of 35%.

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