Abstracts

An X-band 2 kW CW GaAs FET power amplifier for continuous wave illuminator application

H. Ashoka, J. Ness, A. Robinson, M. Gourlay, J. Logan, P. Woodhead and D. Reuther. "An X-band 2 kW CW GaAs FET power amplifier for continuous wave illuminator application." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 1149-1152.

The development of a solid state power amplifier (SSPA) for a continuous wave illuminator (CWI) application at X-band is described. The amplifier produces 2 kW of CW output power at 1 dB gain compression over a 2.5 percent bandwidth with a DC-RF efficiency better than 15 percent. Low-loss power combining is implemented using a hybrid serial and corporate combiner structure in waveguide medium. The SSPA has been designed to operate in environmental conditions specified for naval military vessels.

❑ Return to main document.