Abstracts

Optical Control of a GaAs MMIC Transmitt/Receive Module

A. Paolella and P.R. Herczfeld. "Optical Control of a GaAs MMIC Transmitt/Receive Module." 1988 MTT-S International Microwave Symposium Digest 88.2 (1988 Vol. II [MWSYM]): 959-962.

This paper reports on experimental results of an optical gain control and optical pulse code modulation of a GaAs Microwave Monolithic Integrated Circuit (MMIC) distributed amplifier. The control signal was generated by a low cost LED and a MultiFinder MESFET was utilized as a photodetector. The amplifier gain was varied by 15 dB as a function of the optical intensity over the frequency range of 5 to 8 GHz. Pulse code modulation was obtained using a semiconductor laser. The work has relevance to reconfigurable phased array antennas.

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