Abstracts

The High Power Performance of a 5 KW MIC Diode Phase Shifter

A. Schwarzmann. "The High Power Performance of a 5 KW MIC Diode Phase Shifter." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 352-353.

This paper describes the diode selection and the design of a three-bit microwave integrated circuit (MIC) phase shifter for high peak-power operation under various bias conditions (including zero bias). Insertion loss, phase accuracy, distortion and leakage current readings are given for both low- and high-power operation. The average insertion loss recorded was 1.1 dB, with a bit inaccuracy of 6 degrees RMS. The MIC phase shifter was designed for phased array radar operation in environmental extremes, including survival in neutron radiation.

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