Abstracts

Integrated Diode Phase-Shifter Elements for an X-Band Phased-Array Antenna (Short Papers)

M.E. Davis. "Integrated Diode Phase-Shifter Elements for an X-Band Phased-Array Antenna (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.12 (Dec. 1975 [T-MTT] (1975 Symposium Issue)): 1080-1084.

The design and production of 502 X-band P-I-N diode phase-shifter elements for a transmissive phased-array radar are presented. These elements consist of three phase-shifter states and two integrated dipole radiators formed using microwave integrated circuit techniques. The detailed design of loaded-line phase shifters and effects of circuit variations during production are examined in terms of measured performance. Finally, the performance of the phase shifters in the phased array is demonstrated through computed and measured antenna patterns giving quantitative results.

❑ Return to main document.