Abstracts

High-power squeeze-type phase shifter at W-band

M.E. Hill, R.S. Callin, M. Seidel and D.H. Whittum. "High-power squeeze-type phase shifter at W-band." 2002 Transactions on Microwave Theory and Techniques 50.5 (May 2002 [T-MTT]): 1437-1441.

We describe the design, fabrication, and bench study of a millimeter-wave phase shifter employed as a high-power recirculator for a traveling-wave resonator circuit. The oxygen-free electronic-grade copper phase shifter was prepared by electrodischarge machining. Measured phase-shifter characteristics are presented and compared with theory. The phase shifter was employed in a traveling-wave circuit at 91.4 GHz with a circulating power of 0.2 MW and subjected to fields greater than 10 MV/m without evidence of breakdown.

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