Abstracts

Monolithic GaAs phase shifter circuit with low insertion loss and continuous 0-360/spl deg/ phase shift at 20 GHz

A.S. Nagra, Jian Xu, E. Erker and R.A. York. "Monolithic GaAs phase shifter circuit with low insertion loss and continuous 0-360/spl deg/ phase shift at 20 GHz." 1999 Microwave and Guided Wave Letters 9.1 (Jan. 1999 [MGWL]): 31-33.

We present here a circuit capable of continuous 0-360/spl deg/ phase shift at 20 GHz with only 4.2 dB of insertion loss. The phase shifter employs a variable velocity transmission line obtained by periodically loading a coplanar waveguide (CPW) line with GaAs Schottky diodes. The circuit is fabricated on GaAs using monolithic fabrication techniques that are compatible with commercial GaAs foundry processes. To the best of our knowledge, this circuit has the lowest reported insertion loss for a monolithic solid state phase shifter operating at 20 GHz.

❑ Return to main document.