Abstracts

A SiGe MMIC 6-bit PIN diode phase shifter

M. Teshiba, R. Van Leeuwen, G. Sakamoto and T. Cisco. "A SiGe MMIC 6-bit PIN diode phase shifter." 2002 Microwave and Wireless Components Letters 12.12 (Dec. 2002 [MWCL]): 500-501.

A 6-bit PIN diode phase shifter has been successfully demonstrated at microwave frequencies in a SiGe bipolar technology. A post-silicon polymer dielectric interconnect technology is implemented to achieve low loss microstrip structures on the silicon substrate. The monolithic microwave integrated circuit exhibits flat phase shift, low VSWR, and low insertion loss variation, over the 7- to 11-GHz band. This phase shifter demonstrates the feasibility of integrating SiGe technology into microwave systems.

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