

Abstracts

Bulk Semiconductor Switches and Phase Shifters

K.E. Mortenson, J.F. White, A. Armstrong and J. Borrego. "Bulk Semiconductor Switches and Phase Shifters." 1968 G-MTT International Microwave Symposium Digest and Technical Program 68.1 (1968 [MWSYM]): 190-196.

Both switches and phase shifters using PIN diodes have great appeal to the designers of electronically steered, phased array antennas. With the PIN diode, conductivity modulation of the intrinsic region to a low resistance is effected under forward bias by the injection of carriers from the P+ and N+ contacts. An RF sinusoidal voltage applied across the diode terminals sees an unvarying resistance, because no appreciable net carrier drift occurs in the brief duration of half an RF cycle.

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