# Abstracts

## A Theory for the Operation of the Tetrahedral Junction Ferrite Switch

*I. Bardash. "A Theory for the Operation of the Tetrahedral Junction Ferrite Switch." 1964 PTGMTT International Symposium Program and Digest 64.1 (1964 [MWSYM]): 49-53.*

In January 1960, a ferrite switch was described which had very attractive characteristics. These included an "off" insertion loss of 60 decibels and an "on" insertion loss of under 0.1 decibels. The name given to the switch was the tetrahedral junction ferrite switch. Figure 1 is a sketch of the switch. The ferrite rod is centrally located along the longitudinal axis of the junction. The switch is turned "on" and "off" by the application and removal of a magnetic field which is generated by a magnetizing coil. The length of the rod is the same as that of the junction with one-inch tapers extending into the input and output waveguides for matching purposes.

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