Abstracts

A Mono-Control Microwave Semiconductor Switch

J.C. Hoover. "A Mono-Control Microwave Semiconductor Switch." 1964 PTGMTT International Symposium Program and Digest 64.1 (1964 [MWSYM]): 204-208.

The circuit shown in Fig. 1 has the useful property that the impedance looking into the input remains matched if the two outputs are terminated in matched loads regardless of the value of Z, whether it be reactive, real or even negative. This statement is conditional on the requirement that the value of Z be identical in two locations. The division of power to the two outputs is not independent of Z but is controlled by it. Obviously, if Z is reduced to zero, output #1 will be shorted out and no power will appear at that port. In the converse, if Z is infinite, output #2 is shorted out by the open-circuited quarter-wavelength stub.

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