Abstracts

Optimum Design of Fast Acting Broadband Multithrow Diode Switches

P.L. Clar. "Optimum Design of Fast Acting Broadband Multithrow Diode Switches." 1963 PTGMTT National Symposium Program and Digest 63.1 (1963 [MWSYM]): 105-112.

This paper utilizes wideband matching theory to derive the maximum bandwidth capabilities of fast-acting, broadband multithrow diode switches, and filter techniques to closely realize them. Using these filter matching techniques, a 1:16 multithrow switch was constructed and evaluated. It achieves less than 1 db insertion loss, 1.3:1 input VSWR and 27 db isolation from dc to 750 mc which agrees closely with the theory. Switching times as small as 40 nsec have been observed. These results represent a significant advancement in the design of fast-acting diode multithrow switches.

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