

Abstracts

Application of the Butler Matrix to High-Power Multichannel Switching

R.S. Davis and H.E. Schrank. "Application of the Butler Matrix to High-Power Multichannel Switching." 1965 G-MTT Symposium Program and Digest 65.1 (1965 [MWSYM]): 133-138.

This paper describes a technique for multichannel switching of high microwave power levels, based on an application of waveguide hybrid circuits such as the well known Butler matrix. It operates on the basic principle of dividing the high power input into a number of lower-power parts, then phase shifting these lower-power components to cause them to recombine into any one of the multiple output channels. The number of channels is any binary number, $N=2^{\sup n}$, and the total power which can be switched is equal to N times the power handling capability of the phasing components used.

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