Abstracts

Design of a Coaxial Hybrid Junction

L. Stark. "Design of a Coaxial Hybrid Junction." 1961 Transactions on Microwave Theory and Techniques 9.2 (Mar. 1961 [T-MTT]): 124-129.

The design of a coaxial hybrid junction is discussed. The hybrid consists of a shunt junction and a series junction. The shunt junction is a broad-band stub compensated tee, and the series junction is basically a balun of the type used to excite a slotted dipole. There is inherent isolation between the shunt and series terminals. The useful bandwidth of the hybrid is at least 10 per cent, while the bandwidth of the shunt junction alone exceeds this by a factor of four. Design data are presented for frequency bands centered at 425 Mc and 220 Mc. Many of these hybrids have been manufactured for application, and the performance repeats very well. Performance data are given for VSWR, isolation, and peak power capacity.

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